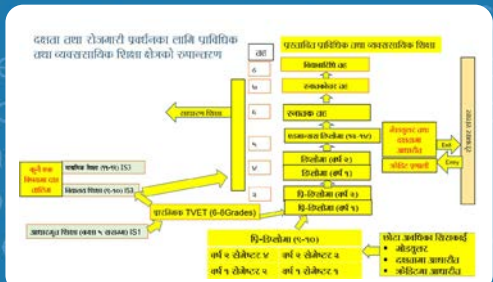
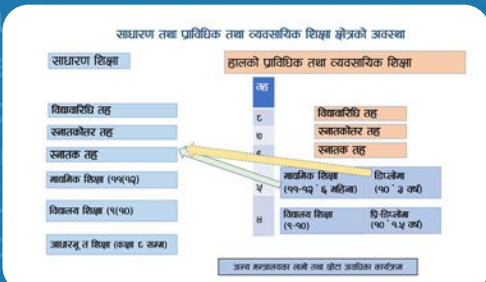


# TECHNICAL AND VOCATIONAL EDUCATION REFORM STRATEGIC PLAN (TRSP) 2080-2089 BS



Age	Education Levels	General Education	Governance	TVET	ISCED Long-short Level Linkages
26-29	Doctoral Level	Doctoral Level	Federal and Provincial Level (Schools also be with Diploma and Pre-Diploma programs)	Doctoral Level	L-8
23-25	Master Level	Master Level		Master Level	L-7
20-22	Bachelor Level	Bachelor Level		Bachelor Level	L-6
17-19	Post-Secondary Education		Local Level	Advance Diploma	L-5
14-16	Secondary Education	Grade 11 to 12, Grade 9 to 10		Diploma	L-4
11-13	Secondary Education	Grade 9 to 10		Pre-diploma	L-3
8-10	Secondary Education	Grade 4 to 8		Preparatory TVET	L-1 & 2 and RPL
5-7	Basic Education	Grade 1 to 5		Elementary/Literacy TVET	
3-4	ECG (Nursery/Garden)				



# **TECHNICAL AND VOCATIONAL EDUCATION REFORM STRATEGIC PLAN (TRSP) 2080-2089 BS**

**(Nation's voice: Flexible and recognized quality TVE as  
'GARI KHANE SIKSHYA for All')**

Submitted to:

**Ministry of Education, Science and Technology  
Singha Durbar, Kathmandu**

Submitted by:

**Dakchyata: TVET Practical Partnership**

**Paush 2079**

The TRSP assignment is supported by Dakchyata: *TVET practical partnership* which is a skills development programme, funded by the European Union and delivered by the British Council in partnership with the Government of Nepal, to realise the potential of young people who – equipped with the right skills – can contribute to national economic success in the agricultural, tourism and construction industries.

### **Disclaimer**

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**Regards**

**John Mountford**

**Team Leader, Dakchyata Project**



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#### **This report can be referenced as below:**

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## Acronym

BIA	Business and Industry and their Associations
CATS	Credit Accumulation and Transfer System
CCU	Career Counselling Unit
CDC	Curriculum Development Centre
CEHRD	Center for Education and Human Resource Development
CoE	Center of Excellence
CTEVT	Council for Technical Education and Vocational Training
DACUM	Developing a Curriculum
FMIS	Financial Management Information System
ISCED	International Standard Classification of Education
JT/ A	Junior Technician/ Agriculture
LGOA	Local Government Operation Act
LMIS	Labour Market Information System
MEDEP/MEDPA	Micro Enterprise Development Program/ for poverty alleviation
MIS	Management Information System
MoCTCA	Ministry of Culture, Tourism and Civil Aviation
MoEST	Ministry of Education, Science and Technology
MOF	Ministry of Finance
MoSD	Ministry of Social Development
NATHM	National Academy of Tourism and Hotel Management
NEB	National Examination Board
NPC	National Planning Commission
NTQAA	National TVET Quality Assurance and regulatory Authority
NSCO	Nepal Standard Classification of Occupations
NSTB	National Skill Testing Board
NVQF/ S	National Vocational Qualification Framework/ System
NTQF/ S	National TVE Qualification Framework/ System
OJT	On the Job Training
OSS	Occupational Skills Standard
OSU	Occupational Skills Up-gradation
PPP	Public Private Partnership
LWD	Learners with Disabilities
QA/ S	Quality Assurance/ System
RPL	Recognition of Prior Learning
SEE	School Education Examination
TSLC	Technical School Leaving Certificate
SMC	School Management Committee
SSC	Sector Skill Committee
SWOT	Strength, Weakness, Opportunity and Threats
TECS	Technical Education in Community Schools
TITI	Training Institute for Technical Instructions
TTC	Teachers Training Centre
P-ITI	Provincial - Instructors (teachers) Training Institute
TVE	Technical and Vocational Education
TVET	Technical and Vocational Education and Training
TVET SAR	TVET Sector Analyses Report
VMGO	Vision, Mission, Goal and Objectives
WBT	Workplace Based Training

## Executive Summary

### 1. National Development and Political Context

**Macroeconomic outlook.** Nepal's economic growth has historically been low. The average annual growth between 2067/68 – 2077/78 (2010/11 – 2019/20) was 4.6 percent (MOF 2078 (2020)) which proved to be inadequate for sufficient numbers of job creation and the low annual growth resulted into low per capita income. In 2078-79 (2021-22), GNI per capita was USD 1381, the lowest in the South Asia region. The economic activities heavily tilted towards service sector that contributed 62 percent to GDP in 2021 followed by agriculture sector (25%) and manufacturing (14%). The contribution of agriculture and manufacturing sector to GDP has gradually declined whereas that of service sector has increased in the last two decades.

In 2078-79 (2021-22), in terms of industries, wholesale and retail trade sectors were the largest sector to contribute to GDP (16.4%) after agriculture. Similarly, real estate (8.8%), education (8.1%), financial and insurance services (6.9%) and construction (6.2%) are other key sectors of the economy. Moreover, accommodation and food services, mining and quarrying, human health and social work sectors are the other high growth sectors. Remittance flow from foreign migration is an integral part of Nepali economy. As migration rate is high, remittance has been the largest source of foreign exchange in the country and exceeds exports and foreign direct investment (FDI) in bringing foreign exchange in. Although Nepal has been making efforts to maintain macroeconomic stability, the increase in balance of payment deficit fuelled by ever-surging imports has been the major economic faultline. The limited productive industrial base at domestic level means the rising consumption demand has to be fulfilled through imports.

**Labour Market Outlook.** The age distribution shows that the majority (69%) of workers are between 25 and 54 years old. Labor force participation among youth is limited. Nepal Labor Force Survey 2074-75 (2017-18) highlighted that the unemployment rate is 11.4%. The unemployment rate is highest (69 percent of those unemployed) among younger people (See Table 1.1). Most labor force (47.7%) is engaged in the service sector followed by Industry (30.8%) and Agriculture (21.5%). By age group, the older cohort of workers are engaged in the agriculture, younger workers (15 – 24) and middle-aged workers (25-64) are more likely to be engaged in market and non-market services sector. However, the shrinking manufacturing sector which is generally a major source of employment creation has a corresponding negative impact on job creation. In general, the manufacturing sector absorbs the labour force that would otherwise engage in the low-productive and subsistence agriculture sector and informal service sector. Expanding the manufacturing sector with a possible emphasis on forward and backward linkages to agricultural produce and value-chain may be an effective strategy for more job creation.

Increasing number of youths are entering into the labour market with inadequate workforce demand. As such, skills mismatch between the workforce and employment/ job requirement remains major bottleneck in the country's labour market. There is a need for narrowing the gap between the demand for labour skills and the nature and level of skills available in the market. Further, the low level of labour productivity owing to a lack of required skills and workforce competence has implications for the competitiveness of domestic industries. As such, overarching educational reform, with a renewed focus on promoting technical and vocational education targeting both employment and further education would help in bridging the workforce gap in the labour market. By 2089 (2032 AD), estimated nearly 2 lakh youths would require long-term technical and vocational education and 5 lakhs existing and new workforce would require short-term skills development training.

**National Development Vision.** The country aims at achieving the Sustainable Development Goals (SDGs) by 2030, and envisions to graduate from the least developed country status by 2022 and enter into a middle-income country by 2030. To respond this target, the 15th Plan (2019/20-2023/24) is aligned with the SDGs. All these macro-level targets, immediate as well as

long-term, are expected to help the country to shape country's long-term development vision 'Prosperous Nepal, Happy Nepali'. In line with this vision, government has long-term objectives: i) to achieve rapid, sustainable and employment-oriented economic growth, and ii) to ensure affordable and quality health care and education. As per the objectives, to achieve Nepal's development vision, preparation of competitive workforce able to respond to employment market both in and outside the country is one of the undeniable development action.

## **2. Rationale and objectives of the National TVET Reform Strategic Plan (TRSP)**

**Rationale.** Government has been making efforts for TVET development. However, due to absence of evidence-based comprehensive and well-targeted plan with relevant interventions, the outcomes were not achieved at the desired level. Therefore, this reform plan is prepared focusing at major TVET performance areas such as access and equity, expansion, quality, efficiency, outputs/ outcomes, integration, governance, management and finance. This document is considered as basis for the preparation of TVET sector strategic plan (TSSP) and also useful for other relevant policy documents.

**Plan Objectives.** Objectives of this plan is to put a framework in place to facilitate systematic reform of the TVET sector aiming at enhancement of the sector performance to ensure outcomes.

## **3. Bases of Reform Plan**

**Constitution, legislative and policy interventions.** The Constitution ensures the 'right to education' as citizens' fundamental right. It intends to make education scientific, technical, vocational, and employment as well as service oriented by regulating and managing the private sector's investment and increasing state investment. So far CTEVT Act 2045 is major legislative instrument for the sector. Following the Constitutional and Local Government Operation Act (LGOA) 2076 provisions, the TVET programs under Center for Education and Human Resources Development (CEHRD) have been transferred to Local levels. Apart from CTEVT and CEHRD at the federal level, other sector ministries at the federal level and the Ministry of Social Development (MoSD)/ Ministry of Education is responsible for managing the TVET sector at provincial level.

As implied in the Constitution, provincial governments need to develop and implement TVET Acts and policies aligning with the federal TVET Act (currently under development process). Currently, TVET Policy has been part of Education Policy 2076 while it remained stand-alone document until the tenure of its predecessor, the TVET Policy 2069. While most of current policy provisions are relevant, some of them appear less helpful in view of sector reform perspective. It has missed to give emphasis on preparation of entrepreneurial workforce for much needed 'Make/ made in Nepal' initiative. Although government has approved National Qualification Framework (NQF) including the National Vocational Qualification Framework (NVQF) in Jesh 2077 (2020 AD), the current policy has not explicitly mentioned development and operationalization of NVQF as foundation for reform.

**TVET provisions in the 15th Plan.** The Plan contains long-term national strategies to achieve rapid, sustainable and employment-oriented economic growth and ensure affordable, quality health care and education. It considers: i) quality human capital and entrepreneurial work culture and full utilization of its potential, ii) increase in production and productivity by enhancing knowledge and skills as well as using capital, technology, infrastructure and energy, and iii) national commitment to achieving SDGs as drivers of transformation by 2030.

**International practices and commitment.** NVQF has been considered as international instrument for recognition of qualifications facilitating educational pathways and workforce movement. This calls for aligning the country's TVE qualifications with international qualifications preferentially with the regional framework. According to UNESCO's Bonn Declaration (2004) "skills development leading to age-appropriate TVET should be integral to education at all levels and can no longer be regarded as optional or marginal". Further, India envisages articulation



between General Secondary Education (GSE) and Vocational Education and Training (VET) to ensure the free movement of students between the streams depending on their aptitudes and inclinations (Sanwal and Chaukksey 2019)<sup>1</sup>. Accreditation in one stream should have equal recognition in the other as well as for access to higher education in the country. Therefore, such secondary or higher education model is expected to equip young people with multiple skills allowing learners to enter and re-enter the world-of-work several times after getting required competencies during their education and employment.

**TVET Sector Analyses Report (TVET SAR) 2022** – TVET sector study was completed as pre-condition for determining indicators and baseline data for TRSP formulation. This report analyses the sector based on over 100 indicators and covers TVET pillars (access, equity, expansion, quality, efficiency, outputs, outcomes, integration, governance, management, coordination, financing and knowledge management). It also identifies the baseline figures against these indicators. Therefore, this TRSP structure heavily relies on TVET SAR 2022 findings along with problems and issues available in the report. Therefore, for better read and understanding of this plan thorough reading of the TVET SAR 2022 would be helpful. Understanding of this plan is also best achieved by also referencing the TRSP Annexes: i) TRSP interventions explanatory notes (Annex 12), and ii) financial estimations calculations and explanatory notes (Annex 13).

**Findings from the other Sector Studies** – Research reports, and policy and project documents by inter/national TVE stakeholders were important resource for this plan. Resources developed by Asian Development Bank (ADB), Swiss Agency for Development and Cooperation (SDC)/ Swisscontact/ Helvetas Swissintercooperation, European Union (EU), British Council, the World Bank, United Nations Development Program (UNDP), Australian Agency for International Development (erstwhile AusAID now DFAT), International labour Organisation (ILO), Internaitonal Organisaton of Migration (IOM) were of particularly important for the TRSP planning process.

#### **4. Approaches and methodology of Planning**

This plan has used approaches specifically related to social demand, human resources requirement, social justice and human rights. This TRSP is profoundly founded on findings of nation-wide survey-led TVET SAR 2022 which has a detailed evidence-based quantitative analyses concluding the sector performance indicators and associated baseline data. The methodology starts with desk review followed by inception report preparation and its approval before moving into the next steps of the planning process. The whole process was steered by MoEST with the Secretary chairing by far most of the meetings held at the ministry, and joint secretaries and senior bureaucrats either chaired or participated in these meetings. Similarly, while some meetings were participated by CTEVT Member-Secretary, presence and leadership of CTEVT directors was noteworthy in the both federal and provincial level workshops. The whole process was technically supported by Dakchyata project (funded by European Union and implemented by British Council). The several consultations with stakeholders at both federal and provincial levels provided the guidance and technical support. The consultation process also ensured the participation of Local levels. Business and Industry members and their Association (BIAs) was the focus of the participation. Similarly, students and parents were also integral part of the consultation meetings. In summary, similarly to the various planning approaches, this TRSP has sincerely attempted to reflect the problems and recommendations collected through innumerable number of interactions with stakeholders, particularly, that with the head teachers/ principals, instructors, parents and students.

#### **5. Critical sector problems**

The TRSP process has identified followings as critical sector problems:

- a. Despite 51% enrolment of the total capacity, continued expansion of TVET schools/ programs - both long and short -, without genuinely considering quality and relevance. Added

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<sup>1</sup> Sanwal and Chaukksey. 2019. Innovating Vocational Education and Training Process for Future.

- to it is gross underestimation of efficiency related issues related to drop out, cycle completion and survival rates;
- b. Rigid educational framework;
  - c. Recognition related challenges of TVET qualifications with implications on employment and further educational pathways;
  - d. Incognizance of BIAs' pivotal role in the sector performance.
  - e. Insufficient governance provisions; and

These problems are further explained in Chapter 6 below.

## 6. Major problems and proposal for principle-based TVET reform

This chapter summarises the TVET SAR 2022 findings on pillar-specific problems and issues and SWOT analyses made in Chapter 5.2 of the main report and makes proposals for reform. However, following the discussion in Chapter 3.1.3 and 4.1.2, to support better read of this plan **henceforth, uses TVE instead of TVET and NTQF instead of NVQF in all relevant and applicable places.**

Table 1: TVET pillar specific problems/ issues and proposal for reform

Reform areas	Problems/ Issues	Proposals for reform
<b>Expansion</b>	<p>49% of the enrolment places remained vacant in 2078. This tendency appears to have continued since at least the last 4 years. Unstoppable expansion without ensuring demands for graduates and ignoring high dropout has led to insufficient learners/ students in some courses.</p> <p>No attention on vertical growth for TVET graduates after Diploma level. The current TVET programs overwhelmingly concentrate on engineering, health and agriculture that has limited immense vocational education potential.</p>	<p>Education Brief detailing feasibility of schools in view of demands for the potential graduates in the employment market should be the entry point of any program expansion.</p> <ul style="list-style-type: none"> <li>• Merger of publicly funded schools with less than 50% learners/students offering at least 3 programs is considered important reform strategy. Further, schools should be allowed to change the courses to ensure relevance of the programs offered.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Avail vertical growth opportunity to TVET graduates connecting Pre-Diploma, Diploma, Advance Diploma and beyond.</li> <li>• Open horizontal expansion opportunity by offering other sectors of economy such as aviation and telecommunication engineering, banking, fashion design and accountancy.</li> <li>• Duration of short-term programs could be sufficient to cover a module from NVQF Levels 3.</li> </ul>
<b>Access and equity</b>	<p>In view of availing access to TVET to many, more than one schools are established in one Local Level (<i>Palika</i>) while many of such schools reportedly do not have sufficient enrolment. Quotas and various kinds of scholarship provisions exist for encouraging gender and social inclusion but often even the scholarship provisions remain vacant.</p>	<p>In view of limited enrolment, the policy to open schools in all local levels needs a serious and urgent review. Access to students from local levels without schools or where it is unfeasible to establish could be availed through full board scholarships. Similarly, rather than merely pushing only for scholarships, provisions such as student loan for availing study opportunity for economically weak students and soft-loan schemes for starting self-employment and establishing own enterprise could be put in place.</p>

Reform areas	Problems/ Issues	Proposals for reform
Quality	<p><b>Curriculum:</b> Curricula are not modular, competency- and credit-based. This demands learners to invest in the course duration in one go before graduation for instance, a Diploma level learner has to spend whole 3 years before the certificate is awarded.</p>	<p>Whole curriculum structure needs restructuring to ensure: a) Modular; b) Competency-based; and c) Credit-based</p> <p>Such restructuring needs to:</p> <ul style="list-style-type: none"> <li>▪ Allow learners multiple credentials to facilitate multi entry/ exit for flexible learning opportunity and engage in employment even after completing a module.</li> </ul>
	<p>Complex curricula including irrelevant and disproportionate contents, such as science and mathematics. Curriculum are often designed by academicians with only minimal involvement of expert workers making them market irrelevant. It indicates problem with curriculum development process.</p>	<p>Curricula must: a) correspond to the NVQ level descriptors to affix single/ common <b>standards and curricula for each qualification</b>; and b) follow at least DACUM or other internationally acceptable process ensuring productive contribution and ownership of BIAs in general and relevant expert workers in particular.</p> <ul style="list-style-type: none"> <li>• Additional inputs required to extend diagonal education opportunity/ progression to general education could be addressed through bridging input provisions.</li> </ul>
	<p><b>Teachers management:</b> No or insufficient instructors approved positions in (publicly funded) schools. Selection of Teacher/ instructors are fully entrusted to head teacher who appears to be busy in this work rather than engaging in other school management responsibilities.</p>	<ul style="list-style-type: none"> <li>▪ Approve organizational structure with clear HR positions, particularly the instructors, for each school.</li> <li>• Provincial level teacher/ instructors service commission is anticipated with responsibility to select and recommend teachers for all schools in the province. Local levels will recruit the teachers recommended through this process.</li> <li>• Ensure, through accreditation and regular monitoring system, placement of instructors in privately funded schools as per curriculum requirement.</li> </ul>
	<p>Mostly teachers are hired on temporary/ part time basis</p>	<ul style="list-style-type: none"> <li>• Ensure placement of instructors as per approved school organogram and as demanded by specific NTQF-based curriculum</li> </ul>
	<p>instructors' license system absence</p> <ul style="list-style-type: none"> <li>▪ TITI is centralised</li> <li>• Teacher Training Centres (TTCs) with limited capacity in TVET principles-based instructors' preparation</li> </ul>	<ul style="list-style-type: none"> <li>• Operationalise instructors accreditation/ licensing system</li> <li>▪ Established Provincial-Instructors' Training Institutes (P-ITIs) under each Provincial TVE Authority (P-TVEAs)</li> <li>▪ Technical backstopping by TITI to each of the P-ITIs</li> <li>▪ Widen instructional skills training to include instructors from all schools' type (TECS, partnership and private)</li> <li>▪ Subject specific industry-based teacher training (technical training for teachers)</li> <li>• Credit-based instructors'/ teachers' training</li> </ul>
	<p><b>Delivery modality:</b> Mostly classroom focused theory-based delivery</p>	<p>Application of various models of delivery, on priority basis. For instance: a) On the job/</p>

Reform areas	Problems/ Issues	Proposals for reform
	<p>industry attachment; b) Apprenticeship; b) Teaching factory; and c) Fully work-based</p> <p><b>Laboratory:</b> Large share of schools have inadequate machine and equipment for practical training</p> <p><b>OJT:</b> Difficulty in accessing and utilizing OJT opportunities</p>	<p>Ensure machine and equipment as demanded by NVQ Level descriptor-based curriculum. This need can be supplemented by establishing partnership with BIAs.</p> <p>Planning for OJT needs to start from the beginning of any program. Schools must monitor students while they are in OJT.</p>
<b>Relevance</b>	<p>TVET processes are not well founded on employment market needs (also that related to migrants). In the age of ChatGPT and growing concerns for ‘empowering learners at their own workplace’, even a minimum efforts are not made in searching market relevance. Even if some efforts are made in this regard, they have been proven to be insufficient. In some cases, aspiration of higher education has influenced its processes.</p>	<p>All TVET programs:</p> <ul style="list-style-type: none"> <li>▪ follow principles of TVET i.e. all qualifications respond to the employment market.</li> <li>▪ should be demand-based with some space for futuristic outlook.</li> <li>• follow practices tied up with industry/real world-of-work</li> </ul> <p>Ensure provisions to make BIAs’ enagement productive</p>
<b>Integration</b>	<p>TVET is largely delinked with general education.</p> <p>Currently, Nepal’s TVET qualification framework is called, ‘NVQF’ which does not represent ‘Technical education’.</p> <p>Often raised issues recognition issue with CTEVT and CEHRD certificates.</p> <p>TVET not aligned with national and international educational practices.</p> <p>Disarray in TVET system; National Skills Testing Board</p>	<ul style="list-style-type: none"> <li>• Integrate various forms of TVET with general education, with whichever level they are applicable. For example, integration can start from even primary Grades.</li> <li>• To make it more inclusive, the current qualification framework could be termed as National TVET Qualification Framework (NTQF). Henceforth, in the rest of write up, the term NTQF will be used instead of ‘NVQF’.</li> <li>▪ Ensure, through NTQF operationalization, seamless recognition of all TVET certificates, also to be recognized by Public Service Commission (PSC)</li> <li>• Ensure short-term training awards are part of long-term qualifications</li> <li>▪ Implementation of NTQF: All curricula based on government approved NTQF levels;</li> <li>• NTQF levels to be aligned at least with South Asian Regional Vocational Qualification framework;</li> <li>• Accreditation of the certificate with international recognition;</li> <li>• Linking competencies learnt with market</li> <li>▪ <b>Restructuring education/ TVET system</b> <ul style="list-style-type: none"> <li>• Introductory TVET in Grades 1-5</li> </ul> </li> </ul>



Reform areas	Problems/ Issues	Proposals for reform
	(NSTB) yet to take the full role of NTQF implementation role	<ul style="list-style-type: none"> <li>• Elementary TVET: 6-8 Grades /orientation for informed decision making</li> <li>• Opening TVET opportunities at Advance Diploma and beyond</li> <li>• General education students will have specific trade specific competency while they reach Grade 12.</li> </ul>
	Qualifications not aligned with NTQF (NVQF) levels and Level descriptors	<p><b>Restructuring of qualifications</b></p> <ul style="list-style-type: none"> <li>• Elementary TVET</li> <li>• Pre-Diploma: 9-10 Grades (2 years)</li> <li>• Diploma: 11-12 Grades (2 years)</li> <li>• Advance Diploma: 13-14 (1-2 years after Diploma)</li> <li>• Bachelors: 15-17/18 (3 years after Advance Diploma)</li> </ul>
	Short term training awards are stand-alone and only for work	<ul style="list-style-type: none"> <li>• All qualifications, irrespective of duration and providers, are credited and recognized with certificates enabling their recognition for further educational career path.</li> <li>• Implementation of credit, modular and competency-based approach, the short-term training could be made part of for long-term program.</li> <li>• Through application of Recognition of Prior Learning, recognition of possible pathways will be aligned to the competencies achieved in the non/ informal sector.</li> </ul>
	TVET certificates often encounter recognition issue	<p>As in General Education, seamless recognition of all TVET qualifications by universities and Public Service Commission</p> <p>Remove 'Training (T)' word from the acronym 'TVET' and call it only as 'TVE' (it will help avoid impression that TVET is all about 'skills training')<sup>2</sup>.</p>
<b>Governance</b>	<p>Fragmented/ disintegrated/ TVE system working in isolation:</p> <p>a) Public sector</p> <ul style="list-style-type: none"> <li>▪ Over 12 ministries at the federal level</li> <li>▪ 2 ministries at Province level</li> </ul> <p>• 753 local levels</p>	Put clear TVE structure for: a) quality and regulatory assurance; and b) implementation of TVET programs
	<p>Institutional structure:</p> <ul style="list-style-type: none"> <li>▪ CTEVT assuming both quality assurance and implementation responsibility</li> <li>• CTEVT and CEHRD managing schools</li> </ul>	<ul style="list-style-type: none"> <li>▪ All TVE programs, regardless of duration (short and long) and provider (public, private and partnership), must be credited allowing learners for horizontal and then, vertical progression. It could allow also for diagonal progression in some cases.</li> <li>▪ CTEVT will be responsible for quality and regulatory assurance functions (research,</li> </ul>

<sup>2</sup> With this proposal, henceforth, this TRSP also uses 'TVE' instead of the acronym 'TVET'.

Reform areas	Problems/ Issues	Proposals for reform
		<p>standard curriculum development, chief master trainers/ instructors' development, accreditation, examination/ assessment and certification, equivalency, and technical backstopping).</p> <ul style="list-style-type: none"> <li>▪ It implies relieving CTEVT from implementation role which will be then province and Local level responsibility.</li> <li>• Based on above division of responsibility, any accredited organization could implement all kinds of TVE programs provided they follow national quality assurance system.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• CTEVT also assumes responsibility for 2-3 CoEs/ model institutes per province for first-hand experience and serves as quality indicator to the rest of the schools. These institutes/ schools could also offer higher level qualifications targeting international learners/ students as well.</li> </ul>
	<p>No autonomous TVE structure remains under Provincial governments with mandate to implement TVE programs</p>	<p>Autonomous Provincial TVE Authorities (P-TVEAs) are provisioned under MoSD/ MoE for:</p> <ul style="list-style-type: none"> <li>▪ implementation of TVE programs</li> <li>• providing technical backstopping to the Local level schools</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Following constitutional provisions, TVE schools are also managed by Local levels</li> </ul>
	<p>Very limited BIA engagement in TVE bodies and processes; these bodies are overly represented by government bureaucrats</p>	<ul style="list-style-type: none"> <li>▪ Establish strong productive partnership with BIAs through various legislative instruments</li> <li>▪ At least 50% of the members of all TVE governing bodies (CTEVT Assembly and Council, and School Management Committees of both Technical Stream and CTEVT schools). This representation will be from sectors with higher GDP and employment contribution</li> <li>• The leadership positions, such as Chair and Vice Chair of these bodies are by-default members in the respective/ appropriate governance bodies (federal, provincial, local and institute level)</li> </ul> <hr/> <p>Sector Skills Councils (or any other name) constituted by BIAs to be registered as independent system by law with responsibility on:</p> <ul style="list-style-type: none"> <li>▪ Labour market information collection and sharing</li> <li>▪ Taking leadership in standards and curriculum development</li> <li>▪ Assessment of student quality and achievements</li> <li>• Facilitation for employment and financial linkages</li> </ul>
	<p>Collaboration with private sector:</p>	<ul style="list-style-type: none"> <li>• Revision of Industrial Training Act to enhance product partnership between government and business and industry</li> </ul>

Reform areas	Problems/ Issues	Proposals for reform
	Significant contribution of private sector in TVE but no visible public sector support	<ul style="list-style-type: none"> <li>• Coordination and Facilitation Mechanism with the participation of Business and industries associations (BIAs)</li> <li>• incentivise BIAs and/or members who make contribution to the TVE and human resources development</li> </ul>
Management	The TVE sector is vertically and horizontally fragmented across and within each three government levels Large number of problems exist at school level	<ul style="list-style-type: none"> <li>• Functional but legally binding coordination mechanism across and within each governance levels needs to be in place</li> <li>• Capacity building training to the school level management and instructors by P-ITIs with support from TITI and technical backstopping from other CTEVT expertise could easily address many of the school level problems.</li> </ul>
Financing	Limited and uncoordinated TVE financing to ensure quality	Financing models <ul style="list-style-type: none"> <li>▪ Public funding – federal, provincial and local levels</li> <li>▪ Out-of-pocket financing (individual student/ parents private expenses)</li> <li>▪ Private investments</li> </ul> <ul style="list-style-type: none"> <li>• Public Private Partnership</li> </ul>
	No system exists for dis/incentivising schools/ institutes attaining enrolment, graduate and employment targets	Introduce legislative and policy instruments for dis/incentivising schools/ institutes attaining enrolment, graduate and employment targets
	Role of International Development Partners is welcoming and necessary but sometimes not linked with government priorities	All international development assistants are channelled through government system. Even if some support initiatives, such as work of international non-governmental organizations, may not be possible to use this channel, they will align their work on the interventions identified/ prioritised by the TRSP.

## .7TRSP guiding framework

### 7.1 Major TVET principles followed

While designing the TRSP (briefed in Chapter 8 below), following principles<sup>3</sup> were followed:

- a. **Employment<sup>4</sup> first** (while also opening further education path) by establishing an unchallenged semi-autonomous TVE system capable to freely interact with the national and international employment markets, at all government levels. This essentially means productive engagement of business and industry community.
- b. Demand based vertical and horizontal expansion of qualifications and programs.
- c. Flexible learning opportunity to make TVE truly a **Garikhane Sikshya**
- d. Public Private Productive Partnership (4Ps)

### 7.2 Interest of political parties

<sup>3</sup> Modified from Stephen, M., Nink, C. and Duggan, S. 2020. Principles and strategies of a successful TVET program. [voiced.edu.au](http://voiced.edu.au) dated 30 July 2022.

<sup>4</sup> Employment as envisaged by TRSP includes: i) salary/wage employment; ii) self-employment of all kinds; and iii) enterprise development for starting 'Make/ made in Nepal' initiative.

Review of political parties' election manifestoes 2079 presents their interest for quality and employment-oriented TVE, strong enough to gain national and international equivalency and recognition. Therefore, the TRSP vision, mission, goals and specific actions are designed by keeping these interests in perspective.

## 8. The TVE Reform Strategic Plan (2080-2089)

<b>Vision</b>	<b>Competitive and entrepreneurial workforce</b> for 'Tranformative and Prosperous Nepal'.
<b>Mission</b>	TVE system reformed for preparing <b>competitive and entrepreneurial workforce</b> making it truly a ' <b>garikhane sikshya</b> <sup>5</sup> through the TVE Principles-based TVE Acts and relevant policy instruments.
<b>Goal</b>	Prepare globally competitive industry-ready and entrepreneurial workforce with capacity to contribute to "Make/made in Nepal" initiative with ensured recognition and seamless further educational opportunity at all governance levels.
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1. Expand TVE programs ensuring access and equity, and for innovation</li> <li>2. Improve Quality (instructors, standards and curriculum, instructors' preparation, physical infrastructure and examination/ assessment) and Efficiency of TVE services</li> <li>3. Enhance outputs of TVE services</li> <li>4. Ensure Integration and recognition of TVE qualifications (operationalization of NTQF)</li> <li>5. Develop TVE Management System (HR development, school management, Knowledge Management and financing)</li> <li>6. Improve governance and coordination and Financing</li> </ol> <p>These objectives are supported by <b>49</b> strategies and several interventions under each strategy.</p>
<b>Strategies by objectives</b>	<p><b>Objective 1: Expand TVET programs ensuring access and equity, and for innovation</b></p> <p><b>Strategies:</b></p> <ul style="list-style-type: none"> <li>▪ Ensuring balance of demand-based industry/ economic sectors responsive TVE programs among federal, provincial and local levels by 2089.</li> <li>▪ Expanding various TVE programs for existing worker at farm and off-farm (skilling, reskilling and up-skilling) sectors by 2089.</li> <li>▪ Upscaling skilling opportunity (<i>skilling, reskilling and up-skilling</i>) for migrants and returnees by 2089.</li> <li>▪ Enhancing geographical, gender and social inclusion through various scholarship programs by 2089.</li> <li>▪ Expanding or abating expansion of TVET institutions/programs as per Geographical and demographical distribution by 2089.</li> <li>▪ Scaling up of access and expansion in Technical and Vocational Education by 2089.</li> <li>▪ Establishing multi entry and multi exit education structure for enhancing access to both education and work (for 'Flexile learning' and 'Earning while Learning') by 2089.</li> <li>▪ Establishing hostel facility for needy people by 2084.</li> <li>▪ Introducing multi shift instructional learning environment (ILE) for 'flexible learning' opportunity by 2089.</li> </ul> <hr/> <p><b>Objective 2: Improve Quality and Efficiency of TVE services</b></p> <p><b>Strategies:</b></p> <ul style="list-style-type: none"> <li>▪ Operationalizing the Accreditation system and facilitating its recognition in international level as well by 2089.</li> </ul>

<sup>5</sup> **Garikhane sikschy**a indicates 'education that ensures employment'.



- Ensuring the number of instructors as per curriculum requirement by 2089.
- Ensuring quality instructional staff in place and institutionalizing their capacity development opportunities by 2089.
- Reducing instructors' turnover by 2083.
- Widening workplace based practical training by 2089.
- Revising entry criteria and with purpose to support ing weak students, putting bridging inputs by 2089
- Improving Laboratories by 2089.
- Enhance cross-fertilization in ILE through ICT based distance/virtual learning and e-learning resources by 2089.
- Improving internal efficiency by 2089.
- Availing technical M&E system by 2089.
- Enhancing assessment system by 2089.
- Strengthening institutional capacity of assessment/ examination system (OCEs) by 2089.
- Managing accredited skill test centres by 2089.

**Objective 3: Enhance Results (outputs/ outcomes) and Relevance of TVE services**

**Strategies:**

- Developing NTQF (NVQF) based learning resources to facilitate 'flexile learning' and 'Learning while earning' opportunities by including enterprise development components to contribute to 'Make/ made in Nepal' initiative by 2089.
- Increasing number of graduates by 2089.
- Enhancing utilization of TVE outputs (outcomes) and relevance by 2089.
- Increasing BIAs participants in TVE processes for enhancing relevance of TVE services by 2082.
- Increasing number of Sector Skills Council (SSC) for relevance by 2089.
- Continuing publication of TVE sector research reports by 2089.

**Objective 4: Ensure Integration and recognition of TVE qualifications**

**Strategies**

- Accelerating NTQS (NVQS) implementation process by 2085.
- Restructuring TVE qualifications by 2084.
- Ensuring recognition of TVE qualifications by 2082.
- Integrating competencies learned in in/non-formal sector by 2089.
- Emphasizing cross-learning from different sectors by 2089.
- Accelerating workplace-based practices/ intern system in public as well as private sectors including households

**Objective 5: Develop TVE Management System (HR development, school management, financing and Knowledge Management)**

**Strategies:**

- Enhancing institutional including human resources capacity covering federal, provincial and local levels TVET authorities by 2089.
- Supporting learners through institutionalised Learners' Support System (LSS) (school management) by 2089.
- Strengthening HR capacity for school management by 2089.
- Ensuring required finance for quality delivery by 2089.
- Strengthening school capacity to establish School Fund by 2089.
- Facilitating BIAs for availing financial incentives to students during OJT
- Enhancing school level facilities by 2084. Increasing knowledge exchange events (knowledge management) by 2089.
- Enhancing TVE research management capacity by 2089.
- Operationalizing Communication strategy by 2089

**Objective 6: Improve governance and Coordination, and Financing**

**Strategies:**

- Restructuring of current TVET system through Governance instruments at federal, provincial and local levels by 2083.
- Segregating regulatory and implementation responsibilities through new federal TVE Act by 2089.
- Reforming TVE policies in the context of new federal, provincial and local level TVE Acts by 2089.
- Enhancing coordination among and within federal, provincial and local levels for synergy and coherence by 2089.
- Enhancing TVE financing and its regulation with standard indicators by 2089.
- Putting technical backstopping system in place in collaboration with federal, provincial and local levels by 2089.

## 9. Financial estimations for the reform plan implementation

Following the GDP growth target set by 15th Plan and SDG (Scenario A), NRs 759.7 arab is estimated as financial requirement for the 10 years strategic reform period. The medium and long-run of the proposed reform period (i.e. BS 2082-85 and 2086-89) require the majority of the financial resource. Federal, provincial, and local governments are expected to share 14.1%, 13.6% and 31.7% (own source revenue and fiscal transfer from federal and provincial governments), respectively of the total estimates. The remaining contribution is expected from out-of-pocket expenses, including training providers via private schools. Further, the short-run, medium-run and long-run financial requirements are estimated as 7.3%, 32.5% and 60.1% respectively.

As per the estimations informed by objectives, the single largest costs (88.4%) of strategic reform initiatives is incurred in expanding TVE for better access, and equity, and innovation, the first TRSP objective. Within the expansion, improving access has been a major priority and thus is expected to incur 74.0% of the total proposed costs. The second objective sharing 6% of the total estimates is to enhance quality of TVE services. However, segregation of quality related interventions from the first objective (access, equity and innovation) reveals that 19% of the total estimates is dedicated for improvement in quality.

In the alternative growth scenario (Scenario B) in which economy is expected to grow by average rate of 4.6% per annum, the cost of reform initiatives implementation would decrease to NRs. 533.39 arab. Estimations further shows NRs. 31.73 arab on average will be required annually from the public sources to manage the sector. It suggests that the current estimated NRs. 20 arab<sup>6</sup> spent in TVE obtained from the public sources falls significantly short compared to what is required even in the ongoing scenario.

## 10. Implementation Mechanism

As provisioned in the Constitution and Local Governance Operation Act, CTEVT Act, the TVE responsibilities are allocated at three levels: federal, provincial and local levels with following institutional provisions.

**CTEVT as national TVE quality and regulatory assurance authority** - Following the above legal provisions, at federal level, CTEVT will be developed as national TVE Quality and Regulatory Assurance Authority (NTQAA) with the overall quality and regulatory assurance responsibility. CTEVT will build further on the systems and human resources experience developed/ gained over the last 30 years. CTEVT will be responsible for quality assurance of the whole national TVE system. Following the recommendations obtained during the consultation workshops, CTEVT will be responsible for: i) policy formulation for MoEST/ Government of Nepal; ii) quality and regulatory assurance in technical aspects; iii) develop and implement NTQF; iv) coordination; and iv) implementing BIAs connected model schools/ CoEs. The overall implementation responsibility will be entrusted to province and local levels.

<sup>6</sup> MoEST often presents this figure as estimated public sector annual investment in TVE sector.

**Center for Education and Human Resources Development (CEHRD)** – It will provide technical and financial support to Technical Stream schools established at local levels. Given the capacity at the local levels, the CEHRD will continue to offer its services and mobilize Educational Development Coordination Unit (EDCU). However, for all activities related to quality and regulatory assurance, it will work in collaboration with the CTEVT as detailed above.

**Sectoral Ministries at Federal Level** - Over 12 ministries are engaged in TVE, long and short programs. They will use the standards and curriculum developed by CTEVT and will collaborate with it for assessment/ examination and certification. Universities will have major role in NTQF development and operationalization. While Ministry of Finance will be responsible for managing resources, the National Planning Commission will make projections for necessary human resources preparation.

**Business and Industry Associations (BIAs) and other key stakeholders** – BIAs will have two major roles: leaders and members of: i) TVE governance institutions (NTAA Assembly, NTAA Council, and institutes/school management committees); and ii) Sector Skills Councils (SSCs). Private sector and non-governmental organisations engaged in the sector are also important stakeholders for TRSP implementation.

**International development partners** - International development partners and international nongovernmental organisations will continue to remain important sector stakeholders. The TRSP expects that all public international financial support will pass through federal treasury (SWAp). However, in some cases some of the international development partners are not able to contribute the financial resources to the government treasury as they should follow international mandates, such financial support by these agencies, through their programs/ actions, will commensurate with the TRSP objectives, strategies and interventions.

**Province Level**

Ministry of Social Development (MoSD) and Ministry of Education (MoE), whose name may vary at different provinces, will be the major body to implement TVET at the respective province level. It will carry its role of implementation through Provincial TVE Authority (P-TVEA) with following roles and responsibilities: i) Formulation provincial policy aligned with federal TVE Act and policies; ii) Implementation of the federally developed standards and curriculum; iii) Preparation of teachers/ instructors with support from TITI, and iv) Collaboration with all relevant stakeholders at federal, provincial and local levels.

**Local levels**

The local levels will have roles and responsibilities specified and mandated by the Constitution and Local Government Operation Act.

**11. Major Risks and Assumptions**

Critical risks associated with implementation of this TRSP is sought, and, therefore, assumptions are made to resolve them (Table 2).

Table 2: Major Risks and Assumptions

SN	Risks	Assumptions
1	Individuals’ right of skilling as provisioned in constitution will remain overlooked	Following the constitutional provisions and by remaining within TVE principles, skills/ competence development will continue as citizens’ rights.
2	Continuation of TVE practices without following TVE principles	‘Employment’ will be the point of focus before starting all TVE actions (research, standards/ curriculum and preparing instructors, infrastructure development, implementation and assessment/ examination and certification)

SN	Risks	Assumptions
3	TVE Act capable to facilitate implementation of this reform plan will continue to remain uncertain.	<p>TVE principles and best international practices- based Federal TVE Act facilitating specific TVE Policy and similar provincial and local level instruments will be in place. It will ensure Government/MoEST leadership, BIAs/economic sectors' ownership and all inter/national development partners' productive partnership.</p> <p>Even in case of delay in such Act, many reform actions, such as reform in educational qualifications could be implemented following CTEVT Act 2045 amendment 2075 Article 6.16. It will require operationalization of NVQS (converted into NTQS), already approved by government. Amendment in CTEVT Act to reflect the federal context will be helpful in this scenario.</p>
4	Current TVE system structure will continue to exist without changes.	<p>The CTEVT system will be restructured to assume role of National TVET Quality Assurance and regulatory Authority to ensure regulatory responsibility crystal clear.</p> <p>Only CTEVT will be responsible for all quality and regulatory assurance actions (research, standards/ curricula development (with some flexibility for localization), accreditation/licensing of institutes and teachers, M&amp;E and assessment and national certification accreditation, and model/COE schools and teacher preparation in each province). NVQS, under CTEVT will serve as the basis of reform in all these TVE performance areas.</p> <p>All the current TVE bodies will persist with implementation responsibility in coordination with CTEVT. Implementation roles will align with Constitutional provisions and best international practices.</p> <p>Provincial TVE Authorities will be autonomous bodies having freedom to interact with economy sector (BIAs and other sectors of economy)</p> <p>Coordination among different levels of government will be established through the support of relevant competent bodies (CTEVT as federal quality and regulatory assurance authority and Provincial TVEAs as the provincial body) for Technical Backstopping.</p>
5	Lack of human resources capacity for understanding and managing TVE system continues. No capacity development plan for all relevant staff is put in place.	<p>Building capacity to understand TVE principles is costly. Therefore, during the CTEVT restructuring process, proper caution will be taken and maintained at the highest level to avoid losing the current expertise developed over the last three decades. Therefore, creating structures for implementation of this TRSP will retain the existing human resources expertise in these institutions.</p> <p>Along with measures mentioned above, it is important to ensure required personnel at province and local level are in place, and have a long-term capacity development plan for them. However, to keep abreast of the international developments, it is equally important to build the capacity of the current TVET personnel at the federal level including them at relevant ministries.</p>
6	BIAs do not take ownership of the TVE programs	The legislative instruments will incentivize BIAs/ economic sectors to ensure their effective participation in the TVE actions.

SN	Risks	Assumptions
7	Lack of funding will hamper implementation of this plan	<p>Government in partnership with Business and Industry and inter/national development partners will ensure required budget.</p> <hr/> <p>In case some funds are not possible to mobilise through the government channel, (for instance, inter/national non-governmental organisations), such organization will implement the actions/ interventions as the provision identified by the TRSP.</p>

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## **PART I**



# CHAPTER I INTRODUCTION

## 1.1 Macroeconomic Outlook

Nepal's economic growth has historically been low. The average annual growth between 2067/68 – 2077/78 (2010/11 – 2019/20)<sup>7</sup> was at 4.6 percent (MOF 2078 (2020))<sup>8</sup> which proved inadequate for decent number of jobs creation. Such inadequate annual growth resulted into low per capita income. In 2078-79 (2021-22), Gross National Income (GNI) per capita was USD 1381, the lowest in the South Asia region. The economic activities heavily tilted towards service sector that contributed 62 percent to Gross Domestic Product (GDP) followed by agriculture sector (25%) and manufacturing (14%) in 2021. The contribution of agriculture and manufacturing to GDP has gradually declined whereas that of service sector has increased in the last two decades. The government aims at further decreasing the contribution of agriculture sector to GDP to 22.3% by 2081 (2024) (end of 15th Five-year plan) and to 9% by 2106 ((2050) (NPC 2019<sup>9</sup>)). The government aims to increase the contribution of industries and services to GDP to 18.8% and 58.9% respectively by 2024, and to 30% and 61% in the next 25 years, respectively (NPC 2076 (2019)).

In 2078-79 (2021-22), in terms of industry, wholesale and retail trade sectors were the largest sector to contribute to GDP (16.4%) following the contribution of agriculture. Similarly, real estate (8.8%), education (8.1%), financial and insurance services (6.9%) and construction (6.2%) were the other important sectors of the economy. Moreover, accommodation and food services, mining and quarrying, human health and social work sectors were the other sectors with high growth potential.

Remittance flow from foreign migration is an integral part of Nepali economy. The recent population census shows 7.4 percent, or more than 2.1 million Nepali are absent from the country (CBS 2079 (2021))<sup>10</sup>. Other studies suggest an estimated 3.0-3.5 million population are working abroad currently and nearly a third of them are estimated to be working in India (CESLAM 2069 (2013))<sup>11</sup>. The census report also highlights the number of women that have migrated to foreign countries has increased by 71% in comparison to the Population Census 2068 (2011).

Migration led remittance has been the largest source of foreign exchange in the country ahead of exports and foreign direct investment (FDI). The Remittance-to-GDP ratio has reached to 25.4% which was 21.2% a decade ago, and 10.7% two decades ago (NRB 2078 (2020))<sup>12</sup>. Remittance has been major source of financing households' consumption and investments as well as of sustaining high trade deficit. Yet, the productive use of remittance is limited. As per the NRB 2020<sup>13</sup>, households spent 1.1% of remittance in productive sector (trade/business). The 15th five-year plan aims to achieve sustainable and productive use of remittance for poverty reduction and economic growth. However, no significant work has been done to meet the goal. Unproductive use of remittance has also adversely impacted on job growth and self-employment.

Remittance has also contributed to improved government revenue and supported macroeconomic stability. The surge in import duty collections is directly attributed to increase in imports financed by the remittance income. The remittance flow has helped maintain a relatively balanced external sector until recently and has enabled Nepal to reach a reasonable level of foreign reserves, and to maintain the value of their exchange rate. But unless the country seeks

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<sup>7</sup> The report follows Nepali year/ date but where applicable, it is converted into Gregorian calendar and placed inside parenthesis after Nepalese year/ date.

<sup>8</sup> MOF (2020). Economic Survey. Kathmandu: Ministry of Finance, Government of Nepal.

<sup>9</sup> NPC 2019. Fifteen Plan (Fiscal Year 2019/20 – 2023/24). National Planning Commission, Government of Nepal.

<sup>10</sup> CBS (2021), National Census: Preliminary Results: Central Bureau of Statistics, Government of Nepal.

<sup>11</sup> Sharma, S., Thapa, D. (2013). Taken for Granted Nepali migration to India. Centre for the Study of Labour and Mobility (CESLAM), Working Paper III.

<sup>12</sup> NRB (2020), *Nepal Ma Bipreshan Aprabahako Sthiti*, Research Division, Nepal Rastra Bank.

<sup>13</sup> Ibid

alternative stream of revenue in the light of decreasing remittance flow, this will have adverse impact on country's balance of payment situation.

Although Nepal has been trying hard to maintain macroeconomic stability, the increase in balance of payment deficit fuelled by ever-surging imports has been the major economic fault line. The limited productive industrial base in the nation means the rising demand of consumption is to be fulfilled through imports.

## 1.2 Labour Market Outlook

Engagement of youth as a part of Labour force in Nepal is limited. On average, only 29 percent of youths aged between 15 and 24 years, and 53 percent of those aged between 25 and 34 years, participate in the labour market. The rate of women as workforce is significantly lower (nearly half) than that of men. For example, with reference to all age groups, women's labour force participation (on average of 26.3%) is 27.5%, which lower than that of men (53.8%). Nepal Labour Force Survey 2074-75 (2017-18) highlighted that the unemployment rate is 11.4%. The unemployment rate is relatively high among youth (Table 1.1).

Table 1.1: Labour force participation rate and unemployment rate by age group<sup>14</sup>

Age Group	Labour Force Participation Rate		Unemployment Rate	
	Male	Female	Male	Female
<b>Total</b>	53.8	26.3	10.3	13.1
<b>15-24</b>	38.9	20.3	19.7	23.9
<b>25-34</b>	74.9	37.6	11.9	13.9
<b>35-44</b>	76.8	36.7	7.5	9.9
<b>45-54</b>	63.4	28	5.2	7.6
<b>55-64</b>	42.2	16.9	5.5	3.5
<b>65+</b>	21.1	7	3.5	0.6

Most labour forces (47.7%) are engaged in the service sector followed by industry (30.8%) and agriculture (21.5%). However, the shrinking manufacturing sector which is generally the major venue for employment creation has a corresponding negative impact on job creation. In general, the manufacturing sector absorbs the labour force that is otherwise engaged in the low-productive subsistence agriculture sector and informal service sector. Expanding the manufacturing sector with an emphasis on forward and backward integration to agricultural produce and value-chain may be an effective strategy to create more jobs.

The age distribution shows that the majority (69%) of workers are between 25 and 54 years old. While the employment in the agriculture sector, without considering the subsistence agriculture activities, is highest; the older cohort of workers are engaged in the sector more than younger cohorts. Young workers (15-24) and middle-aged workers (25-64) are more likely to be engaged in market and non-market services sector (Table 1.2).

International Labour Organization (ILO)<sup>15</sup> estimates show that nearly 400,000 youths enter domestic labour market each year. Estimates by the World Bank<sup>16</sup> for 2015-16 showed that the country needed to create 286,900 jobs every year in order to keep the unemployment rate constant. However, the number of youths entering into the labour market with inadequate competence has increased. On the other hand, workforce projection specifying competence and qualification levels demanded in the domestic employment market is unavailable. In order to address this gap and to understand workforce demands with various qualifications levels, workforce projection was made for this plan (Fig 1.1). Detailed projection is presented in Annex 10a and is further described in Annex 10b. As summary of the projected workforce by 2089 (2032), estimated nearly 200,000<sup>17</sup> youths would require long-term technical and vocational education and 500,000 existing and new workforce would require short-term skills development training. These estimations are made the basis of various interventions by this TRSP.

<sup>14</sup> Central Bureau of Statistics (CBS) 2019. Nepal Labour Force Survey 2017/18. Kathmandu: CBS.

<sup>15</sup> <https://www.ilo.org/kathmandu/areasofwork/employment-promotion/lang--en/index.htm>

<sup>16</sup> <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/825921524822907777/jobless-growth>

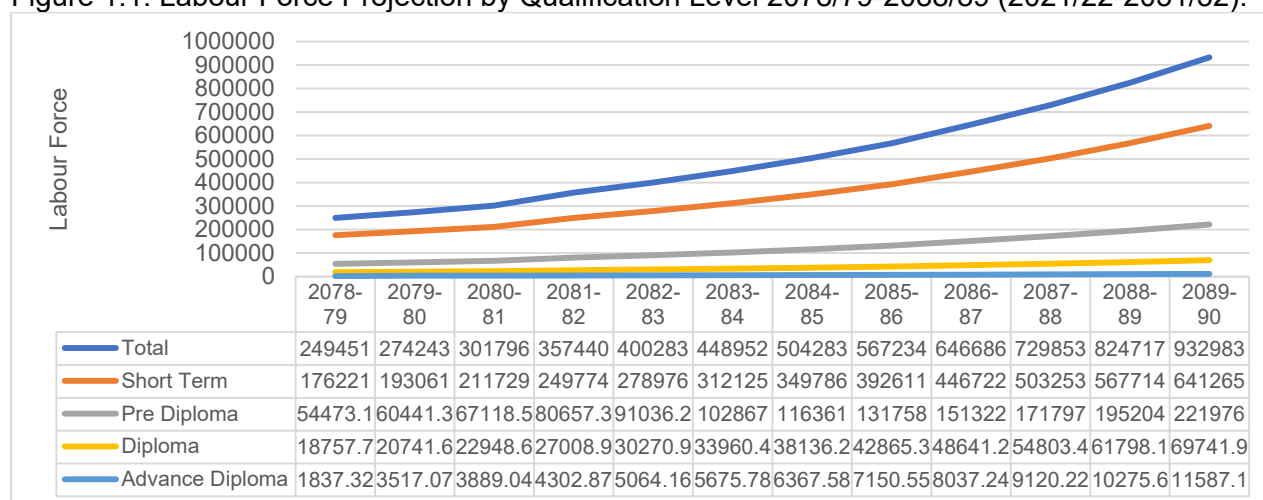
<sup>17</sup> 1 Lakh = 100,000

Table 1.2: Employment share in different sectors by age group<sup>11</sup>

Economic Activities for Labour Engagement	Age									
	15-24		25-54		55-64		65+		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
1 - Agriculture	222,153	17.4	957,230	19.5	226,635	36.2	117,320	41.2	1,523,338	21.5
2 - Manufacturing	218,166	17.1	712,810	14.5	91,521	14.6	49,350	17.3	1,071,847	15.1
3 - Construction	208,270	16.4	679,211	13.9	73,431	11.7	16,703	5.9	977,615	13.8
4 - Mining and quarrying; Electricity, gas and water supply	20,551	1.6	101,302	2.1	7,352	1.2	6,032	2.1	135,238	1.9
5 - Market Services (Trade; Transportation; Accommodation and food; and Business	435,573	34.2	1,570,200	32	161,455	25.8	68,671	24.1	2,235,900	31.6
6 - non-market services (Public administration; Community, social and other services	159,878	12.6	852,439	17.4	61,329	9.8	21,609	7.6	1,095,255	15.5
7 - Not classifiable by economic activity	8,793	0.7	28,706	0.6	4,176	0.7	5,328	1.9	47,002	0.7
<b>Total</b>	<b>1,273,385</b>	<b>100</b>	<b>4,901,898</b>	<b>100</b>	<b>625,899</b>	<b>100</b>	<b>285,012</b>	<b>100</b>	<b>7,086,194</b>	<b>100</b>

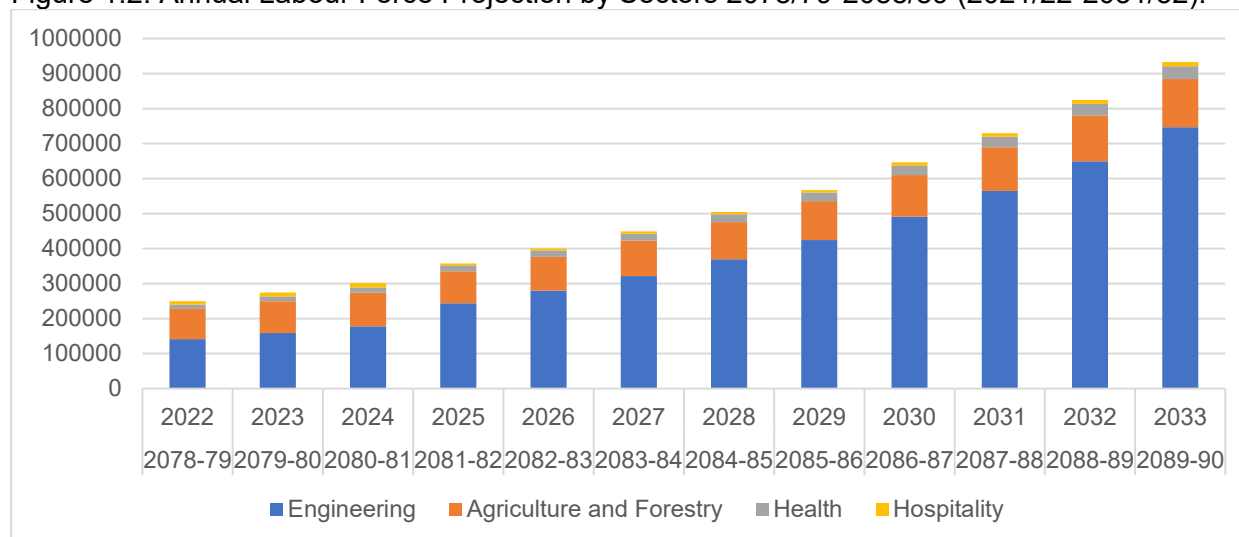
The Figure 1.1 below shows the annual labour force projection for various qualifications (pre-diploma, diploma and advanced diploma) and short-term training courses. The projection is based on the National Labour Force Survey 2074-75 (2017-18), national growth targets as per long-term plan and the existing demand potential for the training courses. This projection has been basis for estimating school numbers and related infrastructure, enrolment places and other plan interventions in Chapter 5.3.

Figure 1.1: Labour Force Projection by Qualification Level 2078/79-2088/89 (2021/22-2031/32).



Similarly, Figure 1.2 depicts the labour force projection in terms of four major sectors: hospitality, health, agriculture and engineering. The engineering sector, encompassing various occupations ranging from Information and communications technicians to science and engineering-related professionals, has largest potential demand followed by the agricultural sector occupations.

Figure 1.2: Annual Labour Force Projection by Sectors 2078/79-2088/89 (2021/22-2031/32).



At the firm level, the rigid labour law has made staff recruitment and laying off costly, burdensome, and time-consuming. This has negatively impacted the demand for and timely supply of workers to the industries. The Labour Force Survey 2074-75 (2017-18) also shows that less than one in ten workers in the market has undertaken some kind of formal vocational or professional training. The firm's reluctance to hire workforce with TVET qualification may be due to low reputation, perceived irrelevance, or lack of equivalence and recognition of certification. Moreover, the low level of pay and lack of effective social security repulse the workforce at all skill levels to seek employment in the domestic labour market and often encourage them seek opportunities in the foreign employment market.

The other constriction of the country's labour market is the skill mismatch between the workforce and employment/ job requirement. As such, comprehensive educational reform with a renewed focus on promoting technical and vocational education targeting both the employment and further education would help in bridging the gap in the labour market.

### 1.3 National Development Vision

The Millennium Development Goals (MDGs) served as foundation of Nepal's Sustainable Development Goals (SDGs) to be achieved by 2030. It also aligns well with the country's target to graduate from the least developed status by 2022 and to be a middle-income country by 2030. Accordingly, the Constitution of Nepal 2015 as well as the 15th Plan (2019/20-2023/24) have an emphasis on the SDGs. All these macro-level objectives, and immediate and long-term targets can help the country to have long-term development vision of 'Prosperous Nepal, Happy Nepali'. Corresponding to this vision, government has long-term objectives too which include: i) achieve rapid, sustainable and employment-oriented economic growth; and ii) ensure affordable and quality health care and education. To accomplish these goals and objectives, Nepal requires workforce competitive in both the domestic and international employment market.

Government's development vision is also reflected in the 2079/80 budget speech (MoF 2079)<sup>18</sup>, which accentuates "Stability, Productiveness and Employment Growth: Inclusive Development, Self-reliance and Economic Prosperity". The budget aims at generating employment and alleviating poverty through integrated mobilization of available natural resources, human resources, capital and technology. It has also emphasis on 'Make/ made in Nepal' initiative which implies the need for technically competitive workforce capable to contribute to this vision.

<sup>18</sup> MoF. 2079. Nepal Government, Budget Speech of Fiscal Year 2079/80. Kathmandu: MoF/ GON.

#### 1.4 TVET Development Context

This chapter explains how TVET in Nepal emerged from an informal sector and with new policies and institutes over the decades, how it has now been widespread and turning towards more formal in nature.

**Before 1911 BS.** Nepal TVET dates decades back in the history when skills were transferred from one generation to another through informal and traditional methods. For example, such informal methods were popular in Kathmandu valley during Malla regime which has contributed to make Kathmandu still today as city known for handicrafts and specific and unique types of architectures. Araniko is one example of them who spread Nepal's artistic capacity outside Nepal since those ancient times. A family or cast-based traditional apprentice system, widely used in Nepal, was the oldest form of occupational skills training. There was a special Decree for citizens to learn some kind of skills and involve in production and business. One of the earliest references of skill acquisition in Nepal dates back to King Jayasthiti Malla regime (1382-1035 BS) who divided the entire population into 67 occupational groups and sub groups (MOE 2009).

**RANA Regime (1911-2007 BS).** Although, the skills transfer/ development at the family level/ informal sector continued in this period as well, it remained from being structured and institutionalised. Formal technical education began in 1930 BS (1987/11/19) after establishment of technical school in Kumari Chowk, Kathmandu. In 1942 BS engineering section was introduced by offering two-year sub-overseer course for SLC graduates. In 1945 BS, the school was shifted to Tri-Chandra College and was renamed in 1950 BS as engineering school. In 1958 BS, it was again renamed as Nepal Engineering Institute and started offering overseer courses in civil engineering, and in 1971 BS electrical engineering course was added. In 1963 BS, Technical Training Institute was established in Thapathali, Kathmandu, and overseer courses in mechanical, automobile and electrical engineering were offered. After introduction of New Education System Plan in 1972 BS, the present Institute of Engineering (IOE) was formed (Paudyal 2018<sup>19</sup>).

**Panchayat Era (2017-2046 BS).** National Education Commission (NEC) formed in 2011 BS initiated the concept of multi-purpose school (Bhandari 2013<sup>20</sup>). The concept of multi-purpose school furthered by establishing Butwal Technical Institute (widely known as BTI) in Butwal in 2019 BS which is still known for its apprenticeship model of training. The emphasis on TVET continued during this period. This period is specifically noted for establishing the present day Balaju School of Engineering and Technology (erstwhile Mechanical Training Centre, known as MTC) in 2020 BS. Technical Training Institute was established at Thapathali, Kathmandu in 2020 BS, which offered a 3-year diploma course. Later in 2027 BS, government introduced National Education System Plan (NESP) which prioritized promoting vocational education targeting the youths. TVET in Nepal became prominent with establishment of technical schools in Jumla, Jiri, Lahan, Seti and Dhankuta in 2037 BS. Similarly, Vocational and Skill Development Training Centre was established in 2034 BS under Ministry of Labour. With objectives to formulating policies, and managing and implementing the system, Technical and Vocational Education Committee (TVEC) and the Directorate of Technical and Vocational Education (DTVE) under the MOE were established in 2039 BS. Similarly, this period is also noted for establishment of Skill Testing Authority (STA) as an important initiative with skills testing responsibility. It was later taken over by CTEVT after its establishment in 2045 BS (1989) with a very powerful Act which opened path for present day TVET.

**Multiparty Democracy System (2046- 2064).** This era is noted for establishing Training Institute for Technical Instruction (TITI) in 2048 BS (1991) under CTEVT. This period is also noted for transferring the basic and technician level programs, such as community medical assistant

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<sup>19</sup> Paudyal, P. 2018. TVET Policies and Strategies of Nepal. Workshop Proceedings (March 2018). Kathmandu: Diploma Engineers Association Nepal.

<sup>20</sup> Bhandari, U. 2013. Technical Vocational Education and Training (TVET) Development and Social Inclusion in Nepal. TEVT Development Journal Vol.13.

(CMA), auxiliary nurse midwife (ANM), health assistant (HA), junior technician/ agriculture (JT/JTA) from Tribhuvan University to CTEVT.

**Federal Democratic Republic System (2064 to date).** In order to start TVET opportunities from Grade 9, Ministry of Education started 4 years technical stream in 2070 BS. With purpose to facilitate recognition of TVET graduates, National Vocational Qualifications Framework (NVQF) under the auspices of CTEVT started in 2071 BS and got the framework approval from the Cabinet in 2078 BS. Similarly, the erstwhile Vocational and Skill Development Training Center was restructured into a Vocational and Skill Development Training Academy in 2075 BS. It has been offering its services from Lalitpur, Sunsari and Rupandehi. This period saw an unprecedented engagement of international development partners such as Swiss Agency for Development and Cooperation (SDC), Asian Development Bank (ADB), European Union and the World Bank.

### **1.5 Rationale for National TVET Reform Strategic Plan (TRSP)**

Despite steady development of the sector as explained in Chapter 1.4, it has been facing many problems and issues as discussed in Chapter 3.3. One of the reasons for this situation was Government's limited mobilization of the CTEVT Act 2045 BS which has even laid a strong foundation for higher level education in TVET. In analogy, it has also not introduced a new TVET Act in the new federal context by appropriately following TVET principles. This policy failure has profound adverse impact on preparation of the competent workforce to meet the country's development vision described in Chapter 1.3. Despite large number of TVET players - domestic and international -, still the system is unable to prepare competitive workforce required in the domestic and international employment markets. TVET is known for as a supply-driven system, a system that has major focus on producing the workforce without considering the market needs. According to TVET SAR 2022, country had 107,411 long term TVET opportunities and large number of short term training places. Due to the sheer gap between nature of demand and that nature of supply, the business and industry, the latter persistently experienced the lack workforce useful, relevant and productive for industry (MoEST/BC/EU 2021<sup>21</sup>). This gap is met by hiring foreign employees. According to Sharma (2021<sup>22</sup>), estimated 500,000 infrastructure workers and 100,000 jewellery makers across the country are foreigners. He also opines that 40-70% workforce in Tarai are foreigners. Also, despite long TVET history and mandate to CTEVT, only rarely TVET graduates benefit with higher education opportunity. This context calls for a strategic reform in the sector by putting the TVET Reform Strategic Plan (TRSP) in place. Benefits of such reformed system and the process are envisaged as follows:

- a) Enhanced understanding on importance of a robust TVET system among stakeholders:
  - Governments of all levels.
  - TVET systems at federal, provincial and local levels including instructors/technical schools/institutes,
  - Business and industry and its associations (BIAs)/ economic sectors;
  - Other inter/national development partners;
  - Students, graduates and parents;
- b) Enhanced understanding of sector problems and issues among the stakeholders.
- c) Identification of generally agreed:
  - Government prioritized interventions by objectives and strategies to mitigate these problems and issues.
  - Interventions related indicators and baseline, and targets and timeline.
- d) Estimations of required investments over the TRSP timeline for various interventions; and
- e) Stakeholders' including international development partners general agreement on potential roles and responsibilities.
- f) Enhancing collaboration between and among inter and intra governmental agencies, and relevant stakeholders' for optimum utilization of the existing TVET resources.

This document is considered as basis for the preparation of TVET sector strategic plan (TSSP) and also useful for other relevant policy documents.

<sup>21</sup> MoEST/BC/EU 2021. Policy Guiding Document. Public-Private Partnerships in TVET. Kathmandu: MoEST/BC/EU.

<sup>22</sup> Sharma, S.P. 2021. National Seminar on TVET Sector Reform for Nation's Prosperity Proceedings of National Seminar on TVET Sector Reform for Nation's Prosperity. Bhaktapur: CTEVT/ European Union.

## **1.6 Objectives of the TVET Reform Strategic Plan (TRSP)**

Objectives of this plan is to put a framework in place to facilitate systematic reform of the TVET sector aiming at enhancement of the sector performance to ensure outcomes.

## **1.7 Structure of the Report**

Following the instructions of the MoEST TRSP Technical Committee meeting dated 29 June 2022, this document is divided into three parts:

- a. PART I gives an overview of political and development context and moves ahead with TVET development context, bases and methodology of planning, current institutional provisions, summary of sector achievements and theory of change. Sector achievements, as findings of the TVET SAR 2022, are presented in Annex 1.
- b. PART II presents actual reform plan and includes its vision, mission, goals and objectives (VMGO). As instructed by the 29 June 2022 Technical Committee meeting, it furthers with details on pillar-wise plan in terms of objectives, strategies, actions/interventions, indicators, baseline, target, timeline and responsible agency.
- c. Part III focuses on financial estimations and TRSP financing mechanism for successful implementation of TRSP. Key Performance Indicators as tool for measuring progress and evaluation, implementation and evaluation plans are other important components of this Part. It concludes with risks and assumptions section. Other additional data and information are presented in Annex. It also includes annexes on explanations on TRSP interventions and financial estimations.
- d. A stand-alone process report has been prepared as evidence of inputs and comments from all stakeholders consulted during the whole TRSP process.

## CHAPTER II

### Planning Bases, Approaches and Methodology

#### 2.1 Bases of Reform Plan

This Chapter explains bases of plan and starts with explaining legislative and policy instruments and government's periodic plan. Moreover, it contains discussion, analyses and rationale of the approaches and methodology followed in this plan.

**TVET Provisions in the Constitution.** The Constitution ensures the "Rights to education" as a fundamental entitlement to the citizens. Furthermore, it has the provision of making education scientific, technical, vocational, empirical, and employment as well as service-oriented by regulating and managing the private sector's investment and increasing state investment. Furthermore, the Constitution Unbundling Report defines allocation of TVET functions in a federalized context. Accordingly, at the federal level, MoEST is responsible for: strategic visioning, coordination of policy/ laws between ministries and relevant public institutions, and overall management of formal TVET programs and clarifying financial arrangements.

**TVET provisions in legislative/ policy instruments.** Until the new TVET Act is promulgated, CTEVT operates under CTEVT Act 2045. On the other hand, the technical stream schools are now operational under local levels, which before the promulgation of the current Constitution, were under Center for Education and Human Resources Development (CEHRD). Apart from the CTEVT and CEHRD at the federal level, at the provincial level, education sector is the responsibility of Ministry of Social Development (MoSD). However, names of the ministry with education sector responsibility may vary with provinces. As conditioned by the Constitution, provincial governments are required to develop and implement TVET Acts and policies aligning with guidelines of the federal TVET Act.

Although, a stand-alone TVET Policy was in implementation until 2069, new TVET policy is now nestled within Education Policy 2076. While most of the new policy provisions are relevant, the provisions on limiting qualifications up to Diploma level with 3 years' duration, preparation of workforce required for managing TVET system in collaboration with other universities (which reinforces government plan to limit TVET qualifications at Diploma level); and provision to get examination of TVET graduates by National Education Board (NEB) appear less helpful in view of sector reform. It has missed to give emphasis on preparation of entrepreneurial workforce for much needed 'Make/ made in Nepal' initiative. Although government has approved National Qualification Framework (NQF) including the National Vocational Qualification Framework (NVQF) in Jesth 2077 (2020 AD), the current policy has not explicitly mentioned development and operationalization of NVQF as foundation for reform.

**TVET provisions in the 15th Plan.** The plan entails long-term national strategies to achieve rapid, sustainable and employment-oriented economic growth and ensure affordable, quality health care and education. It considers: i) quality human capital and entrepreneurial work culture and full utilization of its potential, ii) increase in production and productivity by enhancing knowledge and skills as well as using capital, technology, infrastructure and energy; and iii) national commitment to achieving SDGs as drivers of transformation by 2030.

**Sustainable Development Goals (SDG).** Goal 4 of the SDG which also embraces TVET indicators and targets is also one of the bases for the reform plan.

**TVET Sector Analyses Report (TVET SAR) 2022.** TVET sector study was completed as pre-condition for determining indicators and baseline data necessary for this plan. This TVET SAR 2022 has analyses of over 100 indicators covering TVET pillars (access, equity, expansion, quality, efficiency, outputs, outcomes, integration, governance, management, coordination, financing and knowledge management). As conclusion of this analyses, it identifies the baseline figures against the TVET sector performance indicators. These indicators and data have been bases for deciding interventions and also set the targets to be achieved by TRSP within the next



10 years. Therefore, TRSP reading and understanding becomes much easier with reference of the TVET SAR 2022. Understanding of this plan is best achieved by also referencing the TRSP Annexes: i) TRSP interventions explanatory notes (Annex 12), and ii) financial estimations calculations and explanatory notes (Annex 13).

**Lessons from TVET initiatives/ previous studies** – Lessons learnt from international development partners supported TVET initiatives have been also important resource in this context. Some of them presented below are either from project and policy documents or research reports.

Nepal has benefitted by technical schools established by United Mission to Nepal (UMN), Swiss Agency for Development and Cooperation (SDC), Asian Development Bank (ADB), Government of Denmark and Government of Korea. Relevant lessons were collected during the stakeholder consultation process and several experts' had either directly provided inputs in the draft or had reviewed the draft.

The TRSP initiative has also benefitted by research supported by IDPs, some of which for 2008 ADB/ MoE) ADB include ,instance<sup>23</sup>Pradhan 2008 ;<sup>24</sup>; Wendy 2020<sup>25</sup>; Pradhan 2020<sup>26</sup>; Pradhan 2021<sup>27</sup>);Pradhan 2020) Swisscontact/ Helvetas Swissintercooperation /SDC <sup>28</sup>; Lamichhane et al 2021<sup>29</sup>; Pradhan et al 2014<sup>30</sup>; Pradhan et al 2021<sup>31</sup>)Pradhan ) European Union , et al 2008<sup>32</sup>; PPP policy guiding document 2021)Pradhan et al 2003) British Council ,<sup>33</sup>)United , Pradhan et al 200P) Nations Development Program<sup>34</sup>)) the World Bank ,World Bank 2018<sup>35</sup>) , Pradhan et al 2009) Internaitonal Organisaton of Migration<sup>36</sup>UNESCO (UNESCO 2020 ,( <sup>37</sup> .( Review of project documents and/or first-hand team experience on TVET projects/ initiatives funded/ implemented by development partners is worth mentioning. Some of them for instance, SDC/ Swiss contact/ Helvetas Swiss inter cooperation (Training for Employment, Employment Fund, Safer Migration, Reintegration of Migrants, NVQS, ENSSURE and Quality; Elam, Riverbed farming), EU (Dakchyata, Sakchyamta and SEIS), UN (UN Interagency Rehabilitation Project), ADB (SDP and its preparation for SDP2), UN (Skill for Lifelong), Australian Agency for International Development (erstwhile AusAID now DFAT) (MEDEP/ MEDPA project document World Bank (EVENT), and DFID (Skill for Employment Project).

## 2.2 Planning Approaches

Following approaches are often followed while developing plans:

- a. Social demand approach of planning.
- b. Human resource requirement approach of planning.
- c. Social justice approach of planning.
- d. Human rights approach of planning.

<sup>23</sup> MoE/ADB 2018. (Draft)National TVET strategy plan 2018-2023. Kathamndu: MoEST/ADB.

<sup>24</sup> Prahdan, H. 2018.Tracer Study Report. Skill Development Project Graduates. Kathamndu: ADB

<sup>25</sup> Wendy, D. 2020. Skills Development Project completion report. Kathamndu: ADB

<sup>26</sup> Pradhan, H. 2020. Assessment of TVET courses (TSLC and Diploma levels). Kathamndu: ADB.

<sup>27</sup> Prahdan, H. 2018. Assessment of TVET Sector. Kathamndu: ADB.

<sup>28</sup> Prahdan, H. 2021. NVQS roadmap. Kathamndu: SDC.

<sup>29</sup> Lamichhane, R., Chalise, H., Koirala, S., Regmi, R. and Lamichhane, C. 2021. Economic Sub-Sector and Labor Market Analysis of Nepal. Kathamndu: MoEST/SDC.

<sup>30</sup> Prahdan, H. 2014. Report on Analysis of Selected Industry and Service Sectors in Nepal. Kathamndu: SDC.

<sup>31</sup> Prahdan, H., Nepal, P. and Shrestha, S. 2021. Provincial Workshops in TVET. Final Report. Kathamndu: SDC.

<sup>32</sup> Prahdan, H., Neupane, M. 2018. Private Sector Investment in TVET Sector 2018. Kathamndu: MoE/EU/ The British Council.

<sup>33</sup> Pradhan, H., Neupane, B.R., and Sapkota, H., 2014. Analysis of Skills Gaps between Selected CTEVT Curricula and Demand in Labor Market 2014. Kathamndu: CTEVT/The British Council.

<sup>34</sup> Nepal, J., Sharma, M., and Pradhan, H. 2017. Policy Dialogue Report 2017, Kathamndu: UNDP

<sup>35</sup> World Bank 2018. *Nepal - Systematic country diagnostic (English)*. Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/361961519398424670/Nepal-Systematic-country-diagnostic>.

<sup>36</sup> Pradhan, H. and Acharya, B. 2018. Review of Economic Rehabilitation and Reintegration Model based on IOM and UN Women Good Practices and Development of a Comprehensive Package. Kathamndu: IOM and UN Women.

<sup>37</sup> .2029-UNESCO Strategy for TVET 2022

The TRSP has used mixed methods by including some relevant components of all these approaches. In addition, to accomplish the planning process, a highly participatory and comprehensive approach that also included desk review and consultative meetings was deployed. The methodology is explained further in Chapter 2.3.

### **2.3 eform plan development methodology**

TVET reform plan aims to contribute to inclusive and sustainable growth through investment in human capital and creating better employment opportunities. For this purpose, apart from desk review, it intended to incorporate ideas of different stakeholders. As result, the process was shaped by a massive consultation process at federal and province level which, as explained below, was completed in four stages.

#### **2.3.1 Preparatory phase**

The first step included desk review including identification of relevant data and information from TVET Assessment Report (TVET SAR) 2022<sup>38</sup> and other relevant documents such as NVQS implementation roadmap<sup>39</sup>, and demand-side study report. They provided valuable insights in analyzing the Political, Environmental, Societal, Technical and Legislative (PESTL) context. It was followed by SWOT analysis (Strength, Weakness, Opportunity and Threats) (Annex 2), and a review of lessons learned (Annex 3) from the past TVET practices<sup>40</sup>.

The next step in the process was, by following the findings of the TVET SAR 2022 which has a detailed evidence-based quantitative analyses concluding the sector performance indicators and associated baseline data, to identify the TVET-wide range of performance areas starting institutional provisions to knowledge management. These baseline data and indicator led to identification of tentative interventions to address problems and issues which were shared in MoEST technical committee meeting on 29 June 2022 along with format of the TRSP. This meeting made decisions on the TRSP structure, and further analyses related to necessary interventions, indicators, baseline and targets. Following this mandate, the experts' team drafted preliminary report including main reform plan.

#### **2.3.2 Consultation phase**

After the desk review, and consultation workshops with different stakeholders at federal and provincial and local level was conducted. The phase was completed in two steps: i) consultation meetings in two provinces before 31 July 2022 when the MoEST wanted the first draft; and ii) consultation meetings in remaining five provinces (31 July 2022). During the process, a large number of stakeholders - policy makers, planners, TVET professionals at school, provincial and federal levels - were consulted. The details of stakeholders consultation is presented in Annex 4 which indicates over 2000 people were involved in this process. These consultation meetings/workshops were facilitated by slides presentations (Annex 5: Slides for consultation with Business and Industry stakeholders; Annex 6: Slides for consultation with other stakeholders). The stakeholders' inputs from the workshops, which were one of the major bases for developing objectives, strategies and interventions/actions, are presented in Annex 7 as an example. A sample of stakeholders' group presentation has been presented in Annex 8. Guiding questions for facilitating the group work are presented in Annex 9 which was further complemented by both workshop facilitators and participants inputs.

#### **2.3.3 TRSP drafting phase**

Drafting phase went through several steps:

- As per the MoEST requirements and explained above, a preliminary draft of TRSP including inputs obtained from consultation workshops at the five provinces was prepared.

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<sup>38</sup> Pradhan, H. 2021. TA-9974 NEP: Supporting for Human Capital Development Initiative – TVET Assessment. Kathmandu: Asian Development Bank.

<sup>39</sup> Pradhan, H. 2020. Roadmap on Development and Operationalization of NVQS in Nepal. Bhaktapur: CTEVT/NSTB-Swisscontact/SDC.

<sup>40</sup> Annex 2 (SWOT Analyses) and 3 (Lessons Learned) are adapted from TVET Sector Analysis Report (TVET SAR) 2022.

- A projection about number of students, as a required workforce, to be prepared for various occupations for period between 2080- 2089 was made. It is already summarised in Chapter 1.2 and projection details have been presented Annex 10.
- Revised the draft TRSP after completing the consultation in remaining five provinces. It helped to concretise the interventions with tentative numerical targets.

#### **2.3.4 Financial estimation phase**

Financial estimations were feasible only after getting agreement on the major areas of interventions and targets from the TRSP technical committee, MoEST together with CTEVT and CEHRD, and other sectoral ministries. For the reference, the calculations made under this heading are detailed in Annex 11 and further information on financial estimation is detailed in stand-alone TRSP process document.

In order to ensure understanding and ownership of TRSP among stakeholders, large number of consultations were made even in Kathmandu and provinces. The details of these consultation workshops are presented in Annex 4 and in a stand-alone process document.

#### **2.3.5 Dissemination phase**

The final draft was shared through dissemination workshops/ meetings at federal and province level ensuring the participation of politicians, government officials, inter/national development partners and the media.

#### **2.4 Steering and guidance over consultation workshops/ meetings**

Although, the workshops/ meetings were technically facilitated by the planning team, the whole process was steered and guided by the MoEST. Such MoEST leadership and its engagement was reason behind participation of ministers, parliamentarians and high level bureaucrats in almost all workshops. List of people met and the process document present evidence of this participation. It also , to the extent possible, documents even the speech and inputs made by almost all participants.

## CHAPTER III

### TVET Context Analyses for TVET Reform Strategic Plan

This chapter presents the Political, Environmental, Social, Technological and Legislative (PESTL) analyses and a summary of sector's institutional provisions. It also summarises the sector achievements and summary of problems and issues<sup>41</sup> before presenting the theory of change/ intervention logic of the sector reform.

#### 3.1 PESTL Analyses

Findings of PESTL analyses are summarized as follows:

##### 3.1.1 Political

By following the provision of the Constitution 2072 BS (2015)<sup>42</sup> on "preparing competent technical workforce", government aims to increase the number of the trained workforce among the working-age population. Government's commitment for the sector is also reflected in its 15th Plan and the Sustainable Development Goals target four. Aligning with these macro-level commitments, government has expanded TVET institutes across the country. The election manifestoes 2079 of the various political parties summarized below also convey their emphasis on TVET.

Nepali Congress in its manifesto has emphasis on preparing globally competitive workforce, modifying the current curricula (by making share of TVET as 40%), making provision of apprenticeship and employment, and recognizing and establishing equivalency of TVET certificates. Similarly, it has encouraged returnees to engage in enterprises. The party plans to engage and work with local government to promote this initiative. In the next five years, it plans to assess the need of the TVET sector, and convert one-third of community schools into TVET schools.

Similarly, Nepal Communist Party (United Marxist and Leninist) has laid priority on preparing employment-oriented and entrepreneurial workforce. It intends to establish at least two technical stream schools at each local level and a polytechnic in each province. The manifesto also indicates the party's interest to link the secondary school level education to production and livelihoods through collaboration among federal, province and local level governments. Similarly, the document also proposes to ensure that TVET should share 70% of total education system (enrolment). Its emphasis on education focusing enterprise development is reflected through its proposition of commitment in preparing "workforce that creates employment not the employment seekers". It also intends to provide at least one set of skills (trainings) for migrants and focuses on utilization of knowledge, skills and remittance the returnees possess. It stresses on making youth skilled or semi-skilled through skills training.

Nepal Communist Party (United Samajbadi) election manifesto aligns with that of the two political parties - Nepali Congress and Nepal Communist Party (UML) – presented above. Its focus is on revision of curricula to prepare mid-level skilled workforce and make them self-employed as soon as they complete Grade 12. Its priority for TVET reflects through its intention to establish one polytechnic in each province, one technical school in each district and one TVET subject in each local level. It plans to a develop system to allow learners to earn while learning - "*Sikdai Kamauda*" in agriculture and animal husbandry, engineering, and IT sectors. The manifesto highlights its interest to connect education with production and employment. It intends to establish a CTEVT recognized school in each province to avail TVET opportunities to each interested person. Unlike other political parties, it recognizes private TVET initiatives as equivalent to industry and make projections to benefit nationally needed workforce through their skilling and reskilling. It has also mentioned a specific provision for one skill and one employment per household, and intends to ensure specific skills with migrants.

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<sup>41</sup> In order to help readers understand how the reform strategies and interventions are made, the analysis of the strength, weakness, opportunities and threat (SWOT) is presented in Part II and placed before reform plans for each pillar of the TVET sector.

<sup>42</sup> Nepal's official calendar.

Nepal Communist Party (Maoist Center) plans to coordinate for preparing workforce based on 20 years' workforce projection. It intends to revise curricula to make education useful, modern, focused on science and technology, and vocational-oriented. It also promises free education up to Grade 12. The party commits to allocating required resources in preparing technical workforce and scientists. The party plans to introduce a law to ensure proportionate enrolment of Dalit community at higher level TVET programs through scholarships and to offer skills training to ensure employment. Restructuring Youth Self-Employment Fund is another area of its interest. Janata Samajbadi Party's manifesto emphasizes on employment-oriented vocational education and skills development targeting employment for people below poverty line. It intends to encourage returnees to engage in business within the country itself.

Rastriya Swatantra Party intends to certify the self-learned and experienced technical workforce and establish equivalency with the mainstream education.

As such, all the political parties' election manifestoes exhibit a strong will for reformed TVET sector focusing on quality and employment. Ensuring national and international equivalency and recognition is another special features of most of the election manifestos. In this sense, political parties' election manifestoes have been one of the major guiding framework for the TRSP.

### **3.1.2 Economic**

Amidst the continued economic limitations and challenges explained in Chapter 1.1, government has estimated the average long-term economic growth target of 10.5% per annum by 2100/01 BS<sup>9</sup> which appears to be healthy. Such economic context could create an encouraging environment to create demand for competent workforce. Preparing such workforce, on the other hand, requires a well-funded TVET system. Unfortunately, TVET budget as share of education budget has remained 6% or less over the decades despite the untiring political commitment. As a result, with exception for few CTEVT constituent schools, financial status of the rest including the CEHRD schools appears to be vulnerable. Consequently, although technical stream under CEHRD is considered free-of-cost, financial resources are collected from parents' contribution to manage the schools. Collaboration with business and industry for students' practical training could mitigate the resources requirement to some extent but such an environment does not exist. Hence, it is evident that government has to borrow/ expect a big amount of loans/ grants from international development partners to address this gap but only limited noticeable outcomes are available.

### **3.1.3 Social**

Due to lack of proper understanding on immense potential of TVET, it is considered inferior to general education and often considered as second option for academically weak students at school level, and school dropouts and out of school individuals. Similarly, lack of clarity on objectives of TVET - whether it is only for work or for further education or both - exists under both CEHRD and CTEVT programs. The TVET stakeholders appear to have limited interest in learning from TVET developments and innovations in methods and approaches around the globe. Many stakeholders including policy makers and practitioners consider TVET as short-term training. Even the international development partners with long TVET history appear to ignore its potential and keep on investing in short term training. Despite the developments in TVET in international arena and in their own countries, why they are unable to even orient the decision makers how TVET is recognised in the developed countries is surprising. All these un/deliberate actions have helped deepen the notion that TVET is 'training' and not 'education'. As a result, TVET graduates often suffer from recognition problem which eventually adversely affect their both employment and further educational potentials. As underlined by workshop participants, this is one reason for decrease in enrolment rates in TVET programs and is also reason for remaining even the scholarship quotas and enrolment places under CTEVT.

Despite these serious problems, only limited efforts have been made to change this situation. Surprisingly, even after its existence for nearly a decade, National Vocational Qualification Framework (NVQF) that could contribute in enhancing recognition of TVET qualifications,

university officials and stakeholders in other ministries/ institutions are not aware about it. Even the MoEST and CTEVT officers appear to have limited understanding on its immense potential. Changing the above situation requires, among others, changing peoples' attitude towards TVET. One of the ways in this respect could be to remove the word 'training' from the title 'technical and vocational education and training (TVET)' and call it only 'technical and vocational education with acronym 'TVE'. In analogy, as the current NVQF indicates only 'vocational qualification', the name/ acronym NVQF needs to be changed by placing 'V' by 'T' which represents 'TVE'. These changes may redirect the societal attitude towards the current notion TVET. Therefore, in the rest of this TRSP, TVET is replaced by 'TVE' and NVQF by 'NTQF'.

All these explanations demonstrate need for changes in social aspects of TVE to make it popular and develop it as '**Garikhane Shikshya**'.

### **3.1.4 Technological**

Existing technologies tend to remain under continuous risk of losing their efficacy due to unprecedented innovations. Despite this global phenomenon, even reputed TVET schools such as Balaju School of Technology and Science still rely on machine and equipment installed back in 1960s. Addressing this constraint demands for: i) either huge investment to replace these age-old facilities; or ii) ensure productive partnership between the TVE systems and BIAs to avail of learning opportunity at actual world-of-work (WoW). Partnering with BIAs could be better option than procuring new machine and equipment. Unfortunately, neither of these strategies is adequately in place in Nepal.

There has been very limited use of modern digital technology for classroom delivery and timely exchange of data and information. This is one of the reasons that causes CTEVT Office of Controller of Examinations (OCEs) delay in the publication of results and issuance of the certificates.

### **3.1.5 Environmental**

Global concern on environmentally friendly practices, such as green technology/ TVE, green energy and green jobs is ever growing. Similarly, concern for considerate use of environmental resources is equally emphasized in both national and international contexts. However, these concepts have yet to be fully practiced during the instructional-learning process through curriculum reform in the Nepalese context.

### **3.1.6 Legislative**

CTEVT operates under CTEVT Act 2045. Although it was promulgated during unitary governance system, it is a very powerful legislative provision with mandate also for preparing high level technical workforce<sup>43</sup>. Nevertheless, a new TVE Act in the new federal context is a necessary as absence of such Act has created legislative vacuum at the provincial and local levels. Similarly, the current NVQF was approved by the Cabinet but its operationalization particularly in facilitating recognition of qualifications, further education and workforce mobility has not yet realized.

## **3.2 Institutional provision**

MoEST with other 12 ministries at the federal level, Ministry of Social Development (MoSD)/and Ministry of Education (MoE) at the province and local level municipalities (*palikas*) are engaged in TVE sector (Annex 14). At the federal level, two institutions: CTEVT and CEHRD under the MoEST, have been implementing long-term programs. The CEHRD (erstwhile Department of Education), in parallel to its other general education responsibility, also facilitates management of TVE programs through community schools. These schools are known as 'Technical Stream'. Following the Constitution provision, these schools are transferred to the local levels. Curriculum Development Centre (CDC) prepares curricula for technical stream. Similarly, the teacher training responsibility (role of erstwhile National Centre for Education Development (NCED)) has been transferred to Teacher Training Centres (TTCs) established at the province level. National

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<sup>43</sup> CTEVT Act 2049 amendment 2064.

Examination Board (NEB) is another institution under MoEST responsible for conducting examination and issuing certificates to the technical stream students.

CTEVT, on the other hand, is responsible for both quality assurance and implementation. The quality assurance responsibility it assumes include research, standards and curriculum development, instructors' preparation, monitoring & evaluation (M&E), accreditation, assessment and certification of both formal and in/non-formal learning. While Office of the Controller of Examinations (OCEs) under CTEVT is responsible for the assessment and certification of long-term programs, the National Skills Testing Board (NSTB) organizes skills tests for short-term training completers. It has also started Recognition of Prior Learning (RPL) initiative helping certification of competences gained in in/non-formal setting and facilitating pathways for their integration in the formal TVE system. Training Institute for Technical Instructions (TITI) provides training opportunities to TVE professionals who also include managers and administrative staff. CTEVT has a provincial office in each province responsible for delivering its federal level mandates. Under its implementation responsibility, it manages technical schools under constituent, technical education under community schools (TECS) and partnership modality. It is also responsible for schools operating under private funding modality.

The other federal ministries including Ministry of Labour, Employment and Social Security and Ministry of Industry, Commerce and Supplies, implement or facilitate the implementation of short-term programs. However, the Ministry of Culture, Tourism and Civil Aviation (MoCTCA) through the National Academy of Tourism and Hospitality Management (NATHM) and Mountain Academy, apart from short-term training, also offer long duration programs that include Bachelor's and Master's level programs.

### **3.3 Summary of TVE sector achievements, issues and problems**

This section is based on TVET Sector Assessment Report (TVET SAR) 2022, particularly on the indicators shown in Annex 1. Findings are presented in terms of performance areas by TVE sector.

**Access and equity.** As mentioned earlier, CTEVT has facilitated access to TVE opportunities through various implementation models: i) Technical Education in Community Schools (TECS) with the largest share (52%: 572); ii) private schools (39%: 429); iii) partnership schools (4%: 42); and iv) constituent schools (5%: 63). Similarly, 485 schools operate under CEHRD as the technical stream model. The data suggests that 32 programs (50% of total 64 programs) were offered at Diploma level, followed by 26 (41%) at Pre-Diploma level and 6 (9%) in the technical stream (Grades 9-12). By sectors, engineering holds the largest share (47% of total 64 programs) and is followed by health (27%) and agriculture (13%). By province, Bagmati province (363), Lumbini province (283) and Sudurpashchim province (213) were the first three provinces with the highest number of schools. Each of Madhesh and Province One has 207 schools. Similarly, 84% (of the 753) local levels had access to technical schools. Conversely, 16% of local levels (120) are yet to have this facility. By sectors, engineering occupies the largest share (42%) of the overall enrolment capacity followed by agriculture (33%) and health sector (21%).

Access to TVE programs has been made easier by maintaining relaxed entry criteria. For instance, regardless of the subject specific achievements, Grade 8 graduation is the eligibility criteria for technical stream. Similarly, all who completed School Education Examination (SEE) are eligible to enrol in Pre-Diploma and Diploma programs.

CTEVT had scholarship provisions for up to 10% of the enrolled capacity to support the less privileged to emphasize on inclusion and equity. Yet, 27.5% Diploma and 74.9% Pre-Diploma level scholarships remained unused in 2078.

**Expansion:** With the then Prime Minister's vision to open CTEVT approved schools in all the 753 local levels, the school numbers started to increase and has reached to 1591 in 2078. Such provisions provided 107,411 enrolment places but such expansion was not supported by student

enrolment. For instance, student enrolment rate was 90% on average in 2074 which dropped to 51% in 2078. As such, with growth in number of technical schools, the enrolment rate in general has been negative and applies to both Pre-Diploma and Diploma programs.

**Quality:** This performance area presents status of TVE in key elements of a quality and regulatory assurance system: accreditation, instructors' management, standards and curriculum, and lab facilities, such as machines, tools and equipment, and examination and certification.

Despite CTEVT's accreditation responsibility, so far this role has been confined only to schools' registration. With Accreditation System development and initial work in its piloting, some progress has been made in this front but its full operationalization has yet to be initiated. Similarly, qualified instructors serve as the backbone of any TVE system but as explained in TVET SAR 2022, many important issues are attached in this front too. For instance, less number of teachers (63.6% of the approved position) on average per program than the quotas of instructors approved were found serving the technical stream schools. Some schools compensated the deficit by hiring additional 2.3 instructors and 1.8 assistant instructors on average from the schools' own resources. Findings reveal that government continues to operate this program using temporary instructors, whose future is uncertain. It has resulted in a higher rate of instructors' turnover which, on average, was 18% among instructors and 12.7% among assistant instructors in 2078 BS. Looking at the need to develop and maintain a conducive and quality instructional-learning-environment (ILE) in schools, this situation reflects how precarious instructor management is in the technical stream. Similarly, schools are obliged to retain some instructors even if the instructors do not have the minimum educational qualification; and the teacher preparation opportunities are not satisfactory. Only few instructors had got opportunities to learn and upgrade their own instructional skills in the actual industry/ work environment.

Instructor management for Pre/Diploma programs was found to be similar to the technical stream. In the absence of approved instructors' quotas, CTEVT manages instructors through 4 types of contract provisions: i) permanent; ii) temporary/ contract; iii) service contract (called as *Sewa Karar*); and iv) part-time.

According to the TVET SAR 2022 data, on average 2.88 instructors per program (vis-à-vis requirement of 3) were available for Pre-Diploma programs. Out of them, only 0.31 instructors per program were permanent, 0.74 were under 'temporary' contracts and majority were (1.83 per program) were in 'service' contracts. As the total instructional staff (4.0) was insufficient against a requirement of 5 instructional staff (shortfall by 20%), schools' instructional-learning environment (ILE) was fulfilled through part-time instructors. On average, 1.26 instructors (25.2%) were hired on part-time basis. Similarly, on average, 6.13 instructors per program (vis-à-vis the requirement of 10) were available for Diploma level. Of these, only 0.71 instructors per program had a 'permanent' position. As such, 1.97 were in 'temporary' contract and the majority; 3.45 per program were in 'service' contract. Because the total instructional staff (6.13) was insufficient in contrast to the CTEVT requirement of 10 (a shortfall by 38.7%), schools hired 4.52 instructors on part-time basis which was 89% more than allowed by the CTEVT provisions. Through training, of the total Diploma level instructors in the responding schools, 24.5% had instructional skills training. Training Institute for Technical Instructions (TITI) at federal level and Instructors' Training Centres (ITCs) at province level provide instructors/ teachers preparation services but they too suffer from various challenges such as limited industry/ work based training.

Technical schools generally offered their programs in their premises as well as through On-the-Job-Training (OJT) models of workplace-based training. Although all Pre-Diploma curricula had OJT provision, it was not specified clearly at the Diploma level curricula. In the case of short courses, all 1696 hours curricula had mandatory provision of 576 hours OJT. Technical stream curricula, on the other hand, had a provision for one year long OJT. However, an official notification shows that such OJT could be of 6 months after school-based education making the technical stream with duration of 12.5 years (2 years after grade 10 plus 6 months' OJT).



According to the provincial workshop participants, this provision was not being implemented uniformly. Further, CTEVT has a general understanding of revising standards and curricula with every 3 to 5 years. However, findings suggested that 71% of the CTEVT standards were developed or revised more than 5 years ago. Similarly, 82% of Pre-Diploma and 43% of Diploma curricula also flouted this requirement. Also, majority (70%) of short-term curricula were developed or revised five years ago. This brings in the question whether these existing resources are relevant to the market. With regards to machine and equipment in the school laboratories, only 58% of the schools had more than 75% of their machines and equipment in working condition.

The formative assessment in practice was not too different from theory-based unit tests. It means they lack the features of TVE formative assessment that evaluates the learner's competency, identifying if one is competent enough to perform a specific task. Likewise, CTEVT final examinations have been criticized for being too theory-based as well as taking long time to publish results. The National Examination Board (NEB) exams are not less criticized either as they are too focused on testing the theoretical knowledge. NEB examination of technical stream is also questioned on the ground that it is mandated only for +2 level examinations whereas addition of OJT with one year duration<sup>44</sup> extends the duration of technical stream beyond 12 years. The National Skill Testing Board (NSTB) is assigned with assessing competencies of elementary to level 4 candidates. Its processes are often criticized for being long, time taking and expensive.

**Efficiency:** Due to lack of sufficient data, indicators of efficiency and years for which the efficiency is calculated vary between technical stream, Pre-Diploma and Diploma. Findings suggest that the grade promotion rate in the technical stream appeared to be declining which was not the case in both the Pre-Diploma and Diploma Qualifications. Pre-Diploma level cycle completion rate for 2076 intake was only 38% while it was 52% for Diploma 2072 intake and that too significantly varied by sectors. Survival rate was as low as 59% for Diploma level. Survival rate for the technical stream was only 57.9% suggesting almost similar performance of technical stream under CEHRD and CTEVT's Diploma level.

**Outputs:** The TVE system has made significant contribution through outputs, such as graduate preparations and development of systems and tools to facilitate the TVE operations. So far, it has prepared 353,572 graduates from long-term programs. Likewise, considering the numbers of learners that went through skills testing as proxy indicator, the system has facilitated training for more than 387,695 graduates in various occupations. Even more important is its research reports and resources like skills standards, curricula and learning materials that have been used by stakeholders across the country. The TITI has provided training to large number of instructors and administrative staff from within and outside the country.

**Outcomes:** TVET SAR 2022 found employment rates of Pre-Diploma (61%) and Diploma (66%) graduates under CTEVT schools higher than that of Technical Stream (29%). Still considering the amount of energy and financial investments made by both the instructors and learners, it is less than satisfactory. However, outcomes of other CTEVT products are noteworthy. For instance, the standards and curricula developed by CTEVT have been used by training providers/ stakeholders whether they are public or private or are funded under international development assistance. The NSTB certificates are immensely useful for ensuring formal recognition of skills learned in the in/non-formal sector. Similarly, records of Training Institute for Technical Instructions (TITI) suggested that its expertise has been used to train both national and international TVE professionals.

**Relevance:** Business and Industry and its Associations (BIAs) in CTEVT Assembly and Council, NSTB, Sector Skills Committees and School Management Committees (SMCs) were mainly four

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<sup>44</sup> According to Education Act 2028 (8<sup>th</sup> Amendments 2073 article 6 Gha), OJT provision is for one year, while the MoEST regulation mentions it to be of six months.

instruments for enhancing relevance of TVE outputs. Their representation in National Skills Testing Board (NSTB) (with 50% BIAs representation) and the Sector Skills Committees (SSCs) (with predominant membership) was noteworthy. Yet, one limitation with the SSCs is that they are not legally registered as practiced in similar context in other countries and therefore, is considered as one reason for its limitation to deliver its responsibilities about labour market information system (LMIS), standards and curriculum development, assessment, employment facilitation and policy formulation. However, such representation in SMCs, with one member on average in a SMC of 6.5 members, was not as expected. These limitations explain reason behind limited relevance of the TVE outputs – graduates and learning resources.

**Integration:** The current TVE system suffers mainly from two recognition-related issues: i) limited employment to the TVE graduates; and ii) lack of further educational pathways after Diploma/ or Grade 12 completion. The Pre-Diploma graduate certificates do not carry any credit value requiring them to invest another 3 years' study if they pursue Diploma level qualification. Lack of relationship between NVQS, CTEVT and CEHRD programs; between CTEVT and CEHRD; and even within CTEVT Pre-Diploma, Diploma and RPL/skills test graduates continues to exist. Short-term training has remained a stand-alone qualification without any prospect for pursuing higher qualification. Despite CTEVT Act 2045 (amendment 2075) Article 6.16 mandate on higher level technical workforce preparation, surprisingly CTEVT has not made any initiative on this front. These gaps have created continuous problems in recognition of qualifications. Therefore, CTEVT's inaction does not only adversely affects students, parents and employers, it eventually risks its own existence.

**Governance and Coordination:** At least 12 federal ministries have TVE related mandates which include MoEST with CEHRD and CTEVT. Following the Constitutional and the Local Government Operation Act 2074 mandates, CEHRD schools, on the other hand, are now under local levels. This transfer is arguable in view of 2.5 years' study duration after Grade 10 making it post school education. In analogy, as explained earlier, the NEB with mandates for school education is also arguable. On the other hand, both the budgets of 2077/78 and 2078/79 have stipulated government's intent to make CTEVT a quality assurance body. However, since the budgets fail to legally specify the CTEVT schools' transfer plan, school management dilemma continues and will do so until new TVE Act in the federal context is in place and fully operationalized. Lack of federal TVE Act has also adversely affected the provincial level TVE Act promulgation process and their enforcement. Therefore, as shared by workshop participants, the provincial MoSDs/ MoEs have remained without major role in TVE. As such, TVE fragmentation problem has further deepened vertically. In absence of effective coordination, with over twelve federal and, at least, two provincial ministries with TVE mandates, the system is further fragmented horizontally at each governance level.

**Financing:** The TVE budget as share of education budget continues to be low and has remained at or below 6% for many years in the past. This has ultimate adverse impact on quality of institutions under both CTEVT and CEHRD. Each school under the latter gets NRs. 4 million annually, which is not sufficient for implementing TVE programs at schools and therefore, explains why they have to collect 'parents' contribution' to manage schools. These findings suggest that the tendency of allocating budget for sector does not align with government's intention to increase the TVE enrolment to 70%. Although technical stream schools are not allowed to charge 'fee', in practice and as explained above, these schools get financial contribution from parents. Similarly, CTEVT also charges fee to students but it varies by school modality with the highest among privately affiliated schools followed by that in Technical Education in Community Schools (TECSs) and partnership schools. The fee charged in constituent schools was lowest compared to the other school modalities under CTEVT.

**Monitoring and Evaluation (M&E):** While CTEVT provincial offices practice such roles on CTEVT schools, Local Levels, in absence of 'tier system governance' are mandated with M&E responsibility in the schools under their jurisdiction. However, as TVE is complex education system also requiring technical and expertise backstopping, the administration focused M&E may

not be sufficient in measuring learning outcomes. This justifies role of CTEVT as quality and regulatory assurance body to provide technical backstopping at each level of TVE governance even if it is not traditional M&E. The CTEVT M&E is often focused on administration and financing, it too needs to modify its M&E system to ensure each learners' learning outcomes are monitored and necessary support system is in place.

**Knowledge management:** Status of sector knowledge management is also precarious. As explained above, massive fragmentation remains in TVE system which is one reason explaining fragmentation in MIS. For instance, CTEVT has MIS but it is not connected with other ministries. Even within CTEVT, MIS between and among various Divisions/ institutions is considered less effective. Seminars/ workshops as another knowledge exchange mechanism are organized but documentation of these events and monitoring of their outcomes are done in a limited degree. Similarly, research studies are often conducted at all levels but the practice of sharing the reports to the wider stakeholders is considered insufficient. According to the TVET SAR 2022, only few respondents revealed practice of annual learning exchanges and meetings at the school level.

### **3.4 Theory of Change/ Intervention Logic**

As shown by TVET SAR 2022 and explanation presented in Chapter 3.3, a large number of elements/ variables are involved in its operations which make TVE complex and expensive for both resources and time poor. It, therefore, calls for making reform in the whole TVE system considering these variables as much as possible.

Nepal's economy is featured by dominant service sector with only limited domestic production. It has heavy reliance remittance and trade. The latter ultimately means siphoning of the hard-earned foreign currency including that from remittance. This situation could have been improved by domestic production also targeting export. However, the country seriously lacks vision and action to materialize "Make/ made in Nepal" initiative. Many of the current "Made in Nepal" products are considered not the domestic products in real sense. These issues have been deemed crucial as the economy is thought to be moving towards economic crisis exacerbating chronic poverty situation. The current TVE system, as evidences presented earlier, is unable to satisfactorily facilitate employment generation to address the poverty problem. Instead, ignoring this objective, the TVE is made mechanism for enhancing 'university access' ignoring the need for employment outcomes. This problem applies more to Technical stream. Moreover, even if CTEVT has some success in employment, it has focus on preparing job seekers. Efforts to enterprises development or self-employment is almost none existent. These are reasons why, even if the TVE system prepares graduates, they remain unemployed and eventually forced to fall prey of unproductive further education or pursue foreign employment migration. Ironically, large number of foreign workers engaged in the domestic market suggests existence of employment opportunity in the country. In this sense, the current TVE, regardless of who provides it, is almost a failed system and unable to satisfactorily contribute to national vision of making 'prosperous country'.

Reversing this situation, therefore, is a must and should target to prepare entrepreneurial workforce competitive in the both domestic and global employment market. Such workforce eventually would contribute to make 'transformative and prosperous Nepal'. Achieving this vision requires a complete reform in the TVE system.

Reform in TVE, in turn, requires simultaneous implementation of multiple but reformed interventions/ actions addressing every single problem/ issue affecting the TVET potentials. It should start from identification of occupations with demands in the employment market. The NTQF (currently NVQF), considered main basis for quality assurance, then could facilitate development of Nepal Standard Classification of Occupations (NSCO) aligned TVET qualifications. Such qualifications will be implemented in collaboration with business and industry under an improved instructional-learning environment at schools/ institutes. This will be supported by restructuring of the current TVE system with focus on making the curricula modular, competency and credit based which could allow multi exit/entry from education. It will

avail a flexible learning opportunity benefitting mainly financial and time-poor. Such provision would address the issue of isolating short-term training from long-term TVE qualifications. This process will be strengthened with promulgation of TVE principles-based federal, provincial and local level TVET Acts and related policy instruments. These legal instruments will ensure decisive engagement of business and industry including in the TVE governance structures. Such a reformed system will facilitate wage-employment and replace immigrants. It will also help prepare self-employed and new entrepreneurs who could create job and also be part of the national production value-chain contributing to the 'Make/Made in Nepal' initiative. The opportunities for (micro) enterprise development will also encourage the returnees to remain in the country. Even if they remigrate, the competency they possess will help them fetch safer jobs and better remittance. The Recognition of Prior Learning system will facilitate formal recognition of the skills learned in the in/non formally and potentially pave path for further education.

In summary, the reformed TVE system, in parallel to availing further educational opportunities, will ensure preparation of workforce competitive in the both domestic and global employment market. Through better employment and income, they will contribute to bring transformation and make the country prosperous.

As continuation of the Reform Plan context, the Reform Orientation (Chapter IV) and actual TVET Reform Strategic Plan (Chapter V) are presented in Part II.

## **PART II**

## **CHAPTER IV**

### **Technical and Vocational Education (TVE) Reform Orientation**

The national development context and bases of reform plan followed by the sector achievements, and problems and issues described in the earlier Chapters set the context for TVE system reform from the following aspects:

- a. Conceptual (mind set and definition) reform;
- b. Qualifications and institutional structure reform; and
- c. Legislative reform

#### **4.1 Conceptual reform**

##### **4.1.1 Objectives of TVE**

TVE is not second option for weak learners as traditionally thought to be. Instead, following also the political parties visions, it needs to be promoted as the first choice for anyone. Therefore, the objectives of TVE should be to:

- i) promote employment; and
- ii) facilitate the further educational opportunities.

These two objectives should differentiate the TVE from general education.

##### **4.1.2 Redefining TVET**

TVE in Nepal has conservative concepts in several fronts. In that, so far, it is assumed to be covering mainly engineering, agriculture and health sectors. Large number of schools offering these programs from long in the past indicates this concept. Although few other sectors such as hospitality and social service have been included in the recent times, this narrow thinking on TVE keeps other many vocational occupations, such as accountancy, banking and insurance, and fashion design are kept outside its scope. Therefore, this conservative concept must be redefined in light of potentiality of other occupations to transform the economy.

Similarly, the proposal for removing the word 'training' from 'technical and vocational education and training (TVET)' to limit it only in 'TVE' is already explained in Chapter 3.1.3. This modification is expected to help students and parents that TVE is not only training. More than 'training' it is rather a better 'education' with much stronger possibility of employment. This modification will also help bureaucrats and academician consider TVE, at least at par, the general education.

Also, as the letter 'V' in NVQF stands for 'vocational', in order to make it broader and inclusive, it could be termed as 'NTQF' where 'T' stands for 'TVE'. This concept is also reflected already in Chapter 3.1.3.

#### **4.2 Educational structure reform**

##### **4.2.1 Restructuring qualifications**

The current educational/ TVE structure includes Technical Stream (Grade 9 through 12) without further TVE opportunity. This is a reason why Grade 12 graduates have to pursue higher level study opportunity in general education. This limitation with technical stream is not sincerely considered by stakeholders because of which they appear to be unable to distinguish difference between higher level study opportunities in general education and that in TVE. The same constraint applies to Diploma graduates not to mention the status of Pre-Diploma graduates whose investment of 1.5 years is not recognized for further education. This situation needs a reform in educational qualifications as follow (Pradhan 2020<sup>45</sup>):

- a. Currently, students have to enter technical stream (at Grade 9) without knowledge of prospectus of and challenges with TVE. The same applies with CTEVT programs – both Pre-Diploma and Diploma. This situation needs to be changed by introducing preliminaries about TVE from Grade 6.

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<sup>45</sup> Pradhan, H. 2020. Roadmap on Development and Operationalization of NVQS in Nepal. Bhaktapur: CTEVT/NSTB/Swiss Contact.

- b. Following reform is required in Technical Stream, Pre-Diploma and Diploma qualifications:
- The current Pre-Diploma qualification needs to be structured as Grade 9 and 00 program and should be applicable to both CEHRD and CTEVT. As such, the Pre-Diploma will be of 2-year program and will carry credit value as a complete qualification.
  - Similarly, the current 4-year Diploma qualification needs to be restructured as 2-year course, and should be labelled as single and complete qualification and, should be applicable to both CEHRD and CTEVT.

However, after implementation of this reform, this dichotomy is expected to disappear.

- c. TVE curricula will be NTQF driven which will ensure single curriculum for each qualification regardless of the providers.
- d. TVE curricula will be modular, competency- and credit-based allowing flexible learning opportunity to learners. And, at the same times, the learners will avail the opportunity to practice the school based learning at the actual world-of-work.
- e. The disarray in technical stream and CTEVT's Diploma level qualification needs to be addressed through one qualification award earned through single qualification specific standards and curricula. Discrepancy in qualification recognition between the two institutions should be eliminated.
- f. Seamless equivalency is required to establish between TVE and general education at appropriate levels. This will remove the superiority-inferiority misconception between general education and TVE.

These constraints and reforms are further explained in Chapter 5.1.4 (integration).

#### **4.2.2 Revisiting the current NVQF**

Restructuring of the qualifications' and its implementation requires operationalization of the government approved NVQF (Annex 15). However, the current NVQF itself needs following restructuring (Pradhan 2020)<sup>46</sup> (refer to Figure 5.3):

- a. Recognize the Pre-Diploma as level 4;
- b. Recognise the Diploma/ technical stream as level 3.
- c. Introduce advanced Diploma as level 5 before offering Bachelor's degree (Level 2) as new qualification. By following the NTQF level descriptors, the duration and competencies of Levels 5 and 2 will be defined during the standards and curriculum development process.
- d. As explained in Chapter 3.0.2, change the terminology 'NVQF' into National TVE Qualification Framework (NTQF).

This change is necessary to facilitate: i) seamless recognition of Nepal's TVE qualifications (in both technical and vocational education) across the nation and beyond; and ii) workforce mobility across the borders. By the same token, through application of NTQF, recognition of all qualifications in the South Asia region should also be arranged. This is particularly important in the wake of the south Asia Regional Qualification Framework in progress, which could in turn further facilitate recognition in the rest of the world.

The changes proposed in the above paragraphs are schematically explained in Fig. 5.3

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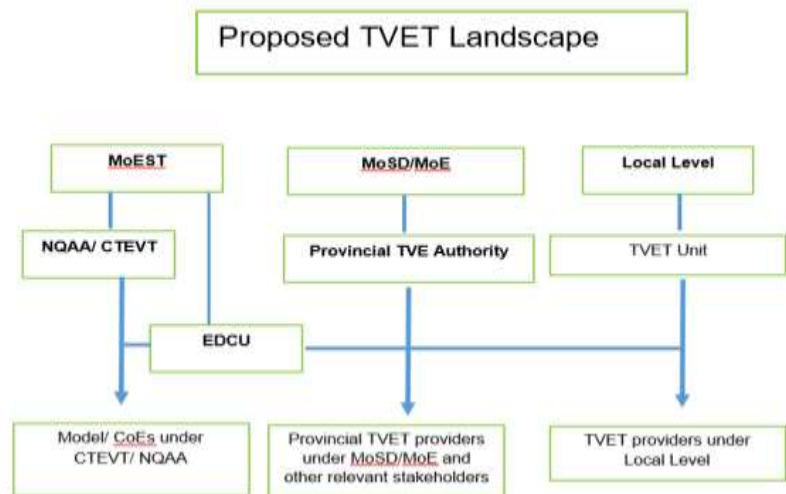
<sup>46</sup> Pradhan, H. 2020. Roadmap on Development and Operationalization of NVQS in Nepal. Bhaktapur: CTEVT/NSTB/Swiss Contact.

### 4.2.3 TVE institutional reform<sup>47</sup>

The TVE institutional structure needs to be divided into two specific bodies:

- a. CTEVT assuming the role of National TVET Quality Assurance and regulatory Authority; and
- b. TVE implementation bodies at all government levels (also refer to Figure 5.4). The structure of TVE system containing CTEVT, Provincial TVE Authority and Local level TVE unit are presented in Figure 4.1.

Figure 4.1: Proposed TVET Landscape



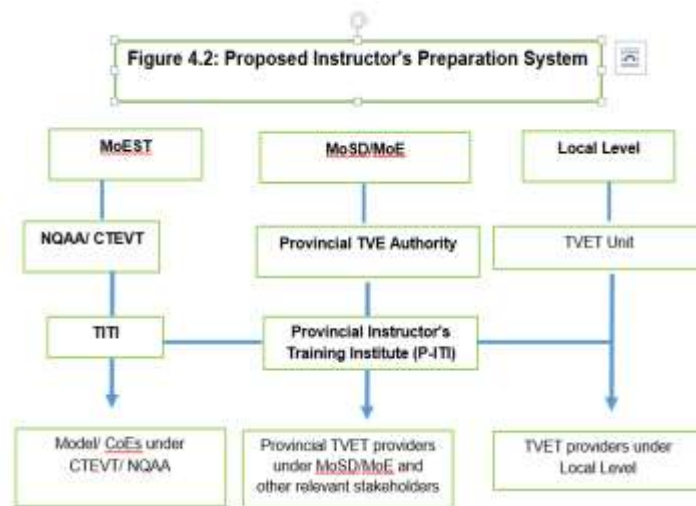
#### 4.2.3.1 CTEVT

Building on existing expertise, CTEVT will need to be restructured with all the responsibilities of a national quality assurance and regulatory body with following major responsibilities:

- a. Implement NTQS as quality assurance mechanism.
- b. Following NTQS provisions, develop and support implementation of national quality assurance system that entails:
  - i) Conduct research entailing all aspects of TVET development ranging from occupations identification to impact assessments,
  - ii) Develop competency standards and curriculum development;
  - iii) Prepare and/ or support preparation of instructional learning materials;
  - iv) Prepare Chief Master Trainers/ Consultant Master Trainers through its Training Institute for Technical Instructions (TITI). It will have following roles and responsibilities:
    - Conduct research to prepare competitive and qualified instructors
    - In view of vertical and horizontal expansion of TVE programs, prepare NTQF aligned teacher standards
    - Prepare Chief Master Trainers (Consultant Master Trainers) in various instructors preparation models. Proposal for reform in instructors' training is presented in Figure 4.2 which is further detailed in Annex 16.
    - Prepare, implement and facilitate implementation of NTQF aligned Instructors' Licensing System
    - Provide technical support to establish and develop Provincial Instructors' Training Institutes (P-ITIs). These institutions will be empowered to prepare Master Trainers at the province level.
    - Facilitate cross-fertilization of innovations/ good practices in instructors preparation across the provinces.
    - accredit institutes/ schools/ programs,
    - conduct examinations and issue certificates, and
    - manage equivalency system.

<sup>47</sup> These reforms are also in line with the Budget Speech 2079 provision that Council for Technical Education and Vocational Training will be restructured and developed as two separate bodies: i) regulatory body for quality TVE and ii) implementing agency. This document has also envisioned the gradual transfer of technical schools to the provinces. Similar provision was also made by the program and budget of the previous year.





- c. Offer technical backstopping<sup>48</sup> to all stakeholders particularly, the Ministry of Social Development/ Education (MoSD/ MoE) and its subsidiaries at province level and other structures at district, and Local Levels.
- d. Support Government/MoEST to establish coordination within three government levels and ministreis/agencies across these levels (Annex 0P).
- e. Operate 2-3 model schools/ Centers of Excellence (CoEs) in each province as demonstrated in Annex 18 for: i) quality reference to the rest of the schools across the country; and ii) getting first-hand experience to ensure retention and enhance its own technical expertise. These institutes/ schools could also offer higher level qualifications targeting international learners/ students as well. This eventually means, it will transfer rest of the more than 0000 schools to the province/ local level.
- f. Ensure quick delivery of its responsibilities at the province level through its own Provincial Units.
- g. Serve as government/ MoEST's policy advisory body on TVE development.

#### 4.2.3.2 Other Federal Level Ministries

Since TVE has to deliver the large numbers of long-term and short/ modular courses, implementation process needs to be robust and aided by accountability of concerned bodies and agencies responsible for implementing the TVE programs. These agencies will follow the quality and regulatory assurance systems developed by CTEVT.

#### 4.2.3.3 Provincial TVE Authority

Autonomous Provincial TVE Authority (TVEA) will be established at province levels under the MoSD/ MoE (Figure 4.1) with the following major responsibilities:

- i. Implement TVE schools in the province
- ii. Manage Provincial Instructors Training Institutes (P-ITIs) with help from federal TITI and assume following responsibilities:
  - a. Prepare Master Trainers, who in turn will provide training to school instructors at the Local levels (Figure 4.2). Such cascade-down approach will not only connect instructors and trainers at all levels, it will also facilitate cross-fertilization of innovations and good practices across the provinces and Local levels.
  - b. Provide technical backstopping to instructors at Local level schools/ institutes
  - c. Provide technical and policy feedback to CTEVT/ TITI, P-TVEAs and local levels
  - d. Facilitate cross-fertilization of innovations/ good practices at province level in preparing instructors in the province
- iii. Avail technical backstopping to the local levels.

<sup>48</sup> Given the current governance system where all the government levels are equal, technical backstopping is considered appropriate instead of monitoring and evaluation function.

- iv. Support MoEST to establish coordination within three government levels and ministries/agencies across these levels.
- v. Support CTEVT and its Provincial Units (refer Figure 5.3) to implement **their own** responsibilities.

The prerequisite for P-ITI's successful operation will rely on strict implementation of the CTEVT developed quality assurance system and following up of TVE principles.

#### **4.3 TVE Legislative reform**

Reform envisioned in Chapter 4.2.3 requires legislative reform - clarity on division of responsibility between CTEVT and implementation bodies at all levels (CEHRD and other ministries at federal level; provincial ministries/ P-TVEAs; and Local levels). Such division of responsibilities requires following legislative reform:

- a. Promulgation of federal TVE Act based on TVE principles. Although the current CTEVT Act is very powerful legislative instrument, and can be engaged in preparing high level technical workforce<sup>49</sup>, it was prepared in the unitary governance context. Therefore, a new **TVE** Act in the federal context is necessary;
- b. Promulgation of Provincial and Local level TVE Acts duly aligned with Federal TVE Act; and
- c. TVE Acts aligned stand-alone TVE policies at all levels (instead of current practice of nestling it with general education).

The reform process will ensure following provisions:

- a) The existing competent and experienced human resources at CTEVT remains unchanged as it was developed by country with over three decades by investing huge amount of time and financial resources. It is not possible to develop such capacity even in fairly moderate span of time. Overlooking this fact might damage the current TVE system capacity and its future potential.
- b) For symbiotic benefits, assurance of BIAs' productive engagement in TVE governance / system through appropriate incentive system established by legislative instruments.
- c) Establishment of Sector Skills Councils (or any alternative as proposed by Federation of Nepalese Chamber of Commerce and Industries presented in Annex 09) to get BIAs' support in the TVE processes, and employment and financial linkages facilitation.
- d) Establishment of P-TVEAs to implement the TVE schools at province level.

Reform agendas explained above clarify specific provisions (Vision, mission, goal, objectives, strategies and specific interventions) of TVE Reform Strategic Plan (TRSP) detailed in Chapter Five.

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<sup>49</sup> Footnote 13, CTEVT Act 2045 Second amendment 2064.

## CHAPTER V

### Technical and Vocational Education (TVE) Reform Strategic Plan

Chapters I to IV of this report cover necessary background for TVE Reform Strategic Plan (TRSP). All the explanation in the preceding chapters are used to develop, vision, mission, goal and objectives (VMGO), and associated strategies under each TVE performance area. In order to make the TRSP evidence-based, Strength, Weakness, Opportunity and Threat (SWOT) analyses of each performance area and lessons learnt are presented as foundation for setting: i) reform agenda, and reform objectives and strategies. Finally, the detailed reform plan with actions/interventions, indicators, baseline, target, timeline and responsible agencies are presented under each reform strategy. Several strategies are presented under each reform objective. The cost estimation for each of these interventions are presented in Chapter 6.1.

While designing the TRSP following principles (Stephen et al 2020)<sup>50</sup> were followed:

- a. **Employment<sup>51</sup> first** (while also opening further education path) by establishing a unchallenged semi-autonomous TVE system at all governance levels capable to freely interact with the national and international employment markets.
- b. Public Private Productive Partnership (4P). This essentially mean productive engagement of business and industry community.
- c. Demand based vertical and horizontal expansion of TVE programs (instead of focusing on expansion of school number).
- d. Flexible learning arrangements to make TVE a **Garikhane Sikshya**.

#### 5.1 TRSP Vision, mission and Goal

With intention to contribute to National Development Vision: "Prosperous Nepal, Happy Nepal", vision, mission and goal of the TRSP have been identified as follow:

<b>Vision</b>	<b>Competitive and entrepreneurial workforce for 'Tranformative and Prosperous Nepal'.</b>
<b>Mission</b>	TVE system reformed for preparing <b>Competitive and entrepreneurial workforce</b> making it a ' <b>garikhane sikshya<sup>52</sup></b> ' through the TVE Principles-based TVE Acts and policy instruments.
<b>Overall Goal</b>	Prepare globally competitive industry-ready and entrepreneurial workforce with capacity to contribute to "Make/made in Nepal" initiative with ensured recognition and seamless further educational opportunity at all governance levels.

#### 5.2 Performance area specific TVE reform plan

Based on the vision, mission and goals, remaining sections of the plan are divided into following six performance areas.

- a. Access, equity, and expansion to, in and of TVE services
- b. Quality and efficiency of TVE services
- c. Results (outputs and outcomes) and relevance of TVE services
- d. Integration in TVE system (operationalization of NTQF)
- e. Management of TVE system (HR development, M&E and knowledge management)
- f. Governance, coordination, and financing.

Following these performance areas, this Chapter specifies the reform plan. Each performance area entails several objectives, and strategies and specific actions/ interventions are proposed under each objective. The actual plan is based on performance area specific SWOT analyses

<sup>50</sup> Modified from Stephen, M., Nink, C. and Duggan, S. 2020. Principles and strategies of a successful TVET program. [voiced.edu.au](http://voiced.edu.au) dated 30 July 2022.

<sup>51</sup> Employment as envisaged by TRSP includes: i) salary/wage employment; ii) self-employment of all kinds; and iii) enterprise development for starting 'Make/Make in Nepal' initiative.

<sup>52</sup> **Garikhane sikschy** indicates 'education that ensures employment.

which is basically drawn from TVET SAR 2022. Additional information on issues and problems, and lessons learnt are also drawn from studies carried out by international development partners referred earlier.

### **5.2.1 Performance area: Access to, equity in and expansion of the TVE services**

This chapter starts with SWOT analyses followed by lessons learnt in this specific performance area. This section will pave path for setting reform agenda which is further supported by strategic objectives and strategies. The last part of this chapter presents the annual action plan together with strategic objectives and strategies-specific interventions/ actions, indicators, baseline and target, timeline and agencies responsible for implementation.

#### **5.2.1.1 SWOT of/in access, equity and expansion**

**Strength:** The government's commitment to open one CTEVT-approved school in each local level<sup>53</sup> is evidence of its emphasis on technical and vocational education. As result, 1591 schools were in operation under CEHRD and CTEVT (until the TVET SAR 2022 report preparation date) which have facilitated access of TVE to 85% of the local levels. As local levels have also started giving affiliation to schools, this figure might increase by the finalization time of this plan. While CEHRD has only publicly funded schools, CTEVT also manages schools under other models – private, partnership, Technical Education in Community Schools (TECS) and constituent school. These models have helped expand the sector widely which, to some extent, has also addressed the issue of equity. For instance, the student fee provisions in public, TECS and partnership models are relatively lower than that in the private schools. Government has also provided various scholarship provisions through CTEVT programs for enhancing equity. Technical Stream, deemed as school education, is considered as free. The government's plan to offer TVE opportunities up to Bachelor's degree level<sup>54</sup> is another important strength of the system to respond the issue with access.

Many projects, such as Employment Fund, Enhanced Skills for Sustainable and Rewarding Employment (ENSSURE), Safer Migration (SaMi), Enhanced Vocational Education and Training (EVENT), Skills Development Project, TVET Public Private Partnership (TVET PP) which is divided into Dakchyata and Sakchymta sub projects provide/d opportunity for short-term training. Development partners' continued commitment has been observed through second phase of by far most of these projects. These projects' graduates are provided with certification/ recognition by NVQS project. This project, through its Recognition of Prior Learning (RPL) wing, provides similar opportunity to learners in the non/informal sector.

**Weaknesses.** Despite strength of the sector as explained above, the system suffers from large number of weaknesses. For instance, objective of the TVE is unclear whether it is for further education or employment or both. Although the Technical Stream has objective of educating weak students intending to facilitate their employment, the program has not been able to select students/ learners accordingly, nor have they been oriented accordingly. The Pre/ Diploma programs have weak entry criteria which does not match with the curricula that includes complex subjects including like science and mathematics. These subjects have not been easy for many students from all three programs: Technical Stream, Pre-Diploma and Diploma. This has resulted in low enrolment rates (refer Box 5.1) and efficiency of the sector as measured through cycle completion, and survival rates. For these reasons, even the scholarship quotas under CTEVT have remained vacant. Due to incomplete understanding of TVE, which is limited mainly to engineering, agriculture and health, other vocational occupations in banking, marketing, fashion design etc. that could horizontally expand learning are excluded by the

**Box 5.1:** During TVET sector analyses report preparation workshop in Surkhet (24-25 December, 2021), a Headteacher/ principal from Karnali Province said: 'Our school has all the elements, such as land, building, machine equipment, practical training field, instructors to run a school but we do not have students.'

<sup>53</sup> The then PM, K P Oli's inaugural speech on 12 October 2015.

<sup>54</sup> Budget speech 2079/80.

sector. This explains why, irrespective of limited employment outcomes, the TVE system has been opening schools and then preparing graduates for decades mainly in these programs. Also, limited or no vertical expansion (further educational opportunity) possibility after completing Diploma level, and issue of recognition associated with the degree have triggered a sense of dislike on the part of students for continuing (also see Chapter 5.2.4 Integration) and/or enrolling in the TVE programs. Further, despite free TVE under CEHRD, the technical stream schools have been collecting resources from parents under "parent's contribution" heading. This suggests that the objective of enhancing access to all through 'free education' is not fully practiced. Similarly, the unstoppable expansion of TVE schools is a major weakness of the sector. This is because large number of schools offer large number of TVE enrolment opportunities. But these institutions were established without proper study of employment market. These expansions have not properly captured the immense opportunity that could harness natural resources, such as agriculture, tourism and hospitality across the country. In that sense, these expansion efforts appear to be largely futile. In other words, low enrolment rate, low cycle completion rate, low survival rates and low employment rate suggest the expansion was not useful in achieving its objective. Further, any emphasis in employment is limited mainly to generating salaries/wages. Often it appears that self-employment has only limited emphasis. Concept of enterprise development-oriented TVE almost does not exist. Even if it does, it is limited to some theoretical fragments on entrepreneurial knowledge.

Most of the problems - limited counselling, lack of reliable market appraisal, lack of properly trained trainers, insufficient laboratories for practical training, limited or no on-the-job-training opportunities and very insignificant employment and financial linkages support - are applicable to both long and short term training.

Short-term training programs, despite plethora of opportunities offered by many stakeholders (government agencies - federal, province, local levels, private sector, NGOs and International Development Partners), have been, to some extent, considered as waste of resources. For example, there are reportedly many training programs where the participants have already participated in so many other short-term training events (Box 5.2). It is now widely accepted that large amount of resources is invested by over 12 federal ministries; and the investment soars as it is further financed by Provincial and Local levels. However, this annual investment is intangible as its the outputs and outcomes have not noticeably surfaced. On the other hand, the employers often find the training graduates as not industry-ready. The training providers do not consider employment facilitation as their own responsibility. This is reason why graduates have difficulty to get employment. Further, the skills test certificates are considered only for employment. Graduates lack pathways to further their career in long-term programs, such as Pre-Diploma and Diploma. Further, NSTB has important service that allows linking all informally and non-formally learned skills; but, due to limited capacity of NSTB, it has not been possible to cater as envisioned.

**Box 5.2:** During an inter-ministerial consultative meeting in the MoEST dated 15 Ashadh 2079, one of the participants shared that she has noted a training participant with participation in more than 65 different short-term skills training events.

The contribution of foreign country migration cannot be over emphasized. However, GoN/ IOM study<sup>55</sup> found that so far most (86.4%) of the returnees did not receive job-related training prior to their migration. Majority of the respondents (61.5%) had secondary (Grades 9-10) and lower secondary (Grades 6-8) education, given that learners at these levels have very little or no technical and vocational skills at school level. This situation explains why large proportion of returnees were engaged in employment that does not require specific competency. As informed by the report, almost half of the respondents (who had done more than one job during migration) reported that they were involved in factory work, followed by construction work (40.3%), general labour (32.2%) and hotel/restaurant work (23.4%) (Annex 20). The GON/IOM study further informs that even if returnees learned skills abroad, majority (68%) perceived that their work

<sup>55</sup> GON/ IOM. Profiling Returnee Migrant Workers for Labour Market Reintegration. Kathmandu: GON/ IOM.

experience abroad was not helpful back home. However, even if the migrants were engaged in in technical/ factory work, their work did not require specific competency (Box 5.3). This situation explains how faulty would be to generalise that all the returnees are skilled and requires careful understanding of individual's work context. All these evidences explain that our preparations for skilling migrants and returnees is insufficient which, in turn, calls for further scaling up of Safer Migration (SaMI) and Reintegration of Returnee Migrant Workers (ReMi) projects' interventions.

**Box 5.3:** During Province 1 consultative workshop dated 29-30 Srawan 2079, one of the returnee migrants shared being unemployed after return while he claimed he worked in furniture factory during migration. Upon further exploration, his work in the country he worked for was just tightening a nail in the furniture. This situation resembled with other returnees who had worked in shoe factory.

**Opportunities.** Large number of schools with limited enrolment numbers and rates could be utilized for facilitating optimum utilization of the limited resources through their merger. Rather than establishing new schools, new programs, such as aviation and telecommunication, could be added to existing schools and possibly also use multiple-shift that could offer TVE opportunities to large number of students from a single school. Opening Advance Diploma and Bachelor's level programs could help expand TVE vertically. Such expansion can be further enriched by focusing on green skills/technology/energy/jobs relevant new courses/programs. ILO has recently researched potential areas for green growth and has identified opportunities in four different sectors. Studies suggest that this kind of expansion can be materialized by adding such components to existing curricula or developing entirely new curricula based on such environmental conservation components. Also, availing full board scholarships for students from local levels unfeasible for establishing schools appear to be useful than futile expansion. These strategies could help enhance financial efficiency as well and provide support for hiring required number of instructors on regular basis. Similarly, along with use of aptitude test, mobilizing local representatives in the selection process could be helpful to fully utilize the available scholarships as they have better idea about the students who need support for learning. Modular competency and credit-based curricula provide opportunity for both horizontal and vertical progression which could even facilitate diagonal progression in general education. This approach could open learning opportunity to an immensely large number of learners at all levels. This, to a large extent, could offer opportunity of 'earning while learning' in true sense. Introduction of TVE at grades 6 to 8, with the purpose of counselling of students about TVE, could help them make informed decision on whether to enrol or not in Grade 9 of technical stream or current Pre-Diploma level. More than 841 thousand youths living without employment<sup>56</sup> could be facilitated for self/wage employment with proper market research and quality training.

Similarly, skills and recognition of estimated over 4.4 million workers in the informal sector<sup>29</sup> could be enhanced through existing workers training and RPL. With scaling up or operationalization of SaMI and ReMi to ensure specific competency, preferably with specific credits as well would not only help the migrants get better work and returns, it would also encourage the migrants to get back to the country and join employment after return. The GON/IOM studies indicate that entrepreneurship training could be useful for returnees to mobilize savings they have. However, properly designed enterprise development programs, as opposed to just entrepreneurial knowledge, could help contribute to 'Make in Nepal' possible. Widening NSTB capacity and operationalization of NTQS could truly help not only the short-term training graduates, it also supports learners in the non/informal sector. These learning will be of great significance for making the existing and upcoming projects, such as Skills Development Project 2 (SDP2) effective. Similarly, scaling up of the ENSSURE could strengthen the capacity of existing workers.

**Threat.** Despite continued expansion and increased investment, decline in enrolment and poor efficiency across the TVE programs are some of the sector threats. The original objective of Technical Stream - to provide educational opportunity to academically weak students and then engage them in employment - has been undermined by the fact that even academically sound

<sup>56</sup> [ekantipur.com/news/2022/11/10/16680456334373892.html](http://ekantipur.com/news/2022/11/10/16680456334373892.html)

students have enrolled in these programs. The issue with these students is that they are interested in further education rather than getting engaged in employment. Therefore, unclear objectives, practice of offering irrelevant courses, and irrelevant expansions are some of the threats to be addressed. The multiple trainings taken by a single person suggests that the resources invested were probably a waste without yielding noticeable outcomes. Similarly, in absence of migrants without specific skills might continue to put their own and family's future at risk. In the absence of timely reform of the sector, such problems are likely to occur more often.

### 5.2.1.2 Lessons learnt

Merely getting access without ensuring quality of delivery and employment outcomes has already been proven to be a futile investment. This situation calls for necessary action the earliest possible. Also, vacant enrolment places, despite the availability of scholarships, highlights the importance of timely sharing of information with target groups by using multiple communication strategies. Similarly, lack of recognition of qualifications and further education opportunity has discouraged prospective learners' enrolment.

Further, evidences show that access and expansion in terms of opening new schools is insufficient to ensure various TVE outcomes: enrolment, and employment etc. Therefore, as voiced by participants in planning workshops, strategies, such as merger of schools/ programs facing enrolment challenges and availing full-board scholarships to the needy and construction of necessary infrastructure appropriate to differently abled people could make the access and expansion efforts meaningful. Further, as seen from the inputs received at workshops, expansion needs to be seen from both vertical (beyond Level 4) and horizontal opportunities (also programs other than engineering, health and agriculture). It could eventually contribute to fetch returns from investments.

### 5.2.1.3 Reform agendas

The reform agendas that need to be addressed under access, equity and expansion performance areas are summarized in Table 5.1

Table 5.1: Relevant from agenda

Reform areas	Reform agendas
<b>Access and equity.</b>	<ul style="list-style-type: none"> <li>▪ Clarifying TVE objectives: Is it for employment? Is it for qualifications? Or both.</li> <li>▪ Increasing enrolment places and enrolment rates</li> <li>▪ Ensuring enrolment of needy and/or deserving learners</li> </ul>
<b>Expansion</b>	<ul style="list-style-type: none"> <li>▪ Managing equitable expansion based on TVE principles to address the issues with TVE outcomes (more than just following merely the 'institutional mapping)</li> <li>▪ Expanding TVE programs vertically and horizontally</li> </ul>

### 5.2.1.4 Reform Objectives and Strategies

Objectives and corresponding strategies under access and equity, and expansion areas are presented in Table 5.2.

Table 5.2: Objectives and strategies

Reform objectives	Strategies
Expand TVE programs ensuring access and equity, and for innovation	Ensuring balance of demand-based industry/ economic sectors responsive TVE programs among federal, provincial and local level by 2084 Expanding various TVE programs for existing workers at farm and off-farm (skilling, reskilling and up-skilling) sectors by 2089 Upscaling skilling opportunity (skilling, reskilling and up-skilling) for migrants and returnees by 2089

---

Enhancing geographical, gender and social inclusion through various scholarship programs by 2089

---

Expanding/ abating expansion of TVE institutions/ programs as per Geographical and demographical distribution by 2084

---

Scaling up of access and expansion in Technical and Vocational Education by 2089

---

Establishing multi entry and multi exit education structure for enhancing access to include work needing learners for 'flexile learning' and 'Earning while Learning' opportunities by 2089

---

Establishing hostel facility for needy people by 2084

---

Introducing multi shift learning opportunity for 'flexible learning' opportunity by 2089

---



### 5.2.1.5 Reform plan for access, equity and expansion

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
Objective 10000	Expand TVE programs ensuring access and equity, and for innovation														
Strategy: 10100	Ensuring balance of demand-based industry/ economic sectors responsive TVE programs among federal, provincial and local level by 2084														
10101	Provide access to market responsive TVE programs at local levels targeting inclusion (by also including full-board scholarships to the students from local levels where it is not possible to open schools)	No. of local levels with TVE institutes/ programs	635 local levels	709	664	674	684	694	709	709	709	709	709	709	CTEVT, CEHRD, PGs and LLs
10102-1	Provide long term TVE programs[1]	No. of annual enrolment (Estimated based on Nepal Labor Force Survey (NLFS) 2018/19 data)	54, 871 (51% of 17411)	203904	73993	86174	98355	134496	136656	139536	152208	166608	184752	203904	MoEST (CTEVT, CEHRD), MoCTCA (NATHM, NMA), PGs and LLs,
10102-2		No. of total institutes	1591	1416	1620	1630	1640	934	949	969	1057	1157	1283	1416	MoEST (CTEVT, CEHRD),

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
															MoCTCA (NATHM, NMA), PGs and LLs,
10102-3		No. of total programs	2543	4248	2572	2602	2749	2802	2847	2907	3171	3471	3849	4248	MoEST (CTEVT, CEHRD), MoCTCA (NATHM, NMA), PGs and LLs,
10102-4		Share of enrolment for enterprise development programs also contributing to 'Make/ made in Nepal' endeavors	Does to exist	At least 25% new entrepreneurs developed			5%	10%	15%	25%	25%	25%	25%	25%	CTEVT, CEHRD, PGs and LLs
10102-5		Share of students targeting self-employment		At least 20% of trainee opt for self-employment			20%	20%	20%	20%	20%	20%	20%	20%	CTEVT, CEHRD, PGs and LLs
10103-1	Provide short term TVE programs for unemployed youth	No. of enrolment in short term TVE programs per annum (in '000)	86208 (Estimated based on NLFS 2018/19 data)	Gradually 500,000 annual enrolment, (aligning with SDG) at least 33% females and 45% social inclusion	176221	193061	211729	249774	278976	312125	349786	392611	446722	503253	All relevant stakeholders (CTEVT Model Schools, MoLESS, MOICS, MoCTCA, MoALD,

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
															MoWCSC, MoHP, MoYS, MoLMCP, MoFE, PGs, LLs)
10103-2		Share of enrolment in Livelihoods Training	Baseline data unavailable	50% of total enrolment in short term training programs	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	All relevant stakeholders MoLESS, MOICS, MoCTCA, MoALD, MoWCSC, MoHP, MoYS, MoLMCP, MoFE, PGs, LLs)
10103-3		Share of enrolment in Level 1 Training	Baseline data unavailable	25% of total enrolment in short term TVE programs	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	All relevant stakeholders (CTEVT Model Schools, MoLESS, MOICS, MoCTCA, MoALD, MoWCSC, MoHP, MoYS, MoLMCP, MoFE, PGs, LLs)
10103-4		Share of enrolment in Level 2 Training	Baseline data unavailable	25% of total enrolment in short term TVE programs	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	All relevant stakeholders (CTEVT Model Schools,

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
															MoLESS, MOICS, MoCTCA, MoALD, MoWCSC, MoHP, MoYS, MoLMCP, MoFE, PGs, LLS)
10104-1	Enhance gender balance in TVE learning opportunities	Ratio of females to male students in TVE (as per SDG target)	0.43:1	1:1	0.86:1	0.90:1	0.92:1	0.94:1	0.94:1	0.96:1	0.96:1	0.98:1	0.98:1	1:01	CTEVT, CEHRD, PGs and LLS
10104-2		Share of students from social inclusion	45% social inclusion	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	CTEVT, CEHRD, PGs and LLS
10105	Ensure system in place to avoid duplication of training by individuals	All trainees are registered under CTEVT/ NSTB MIS database	Some practice exists but not all providers comply with this system	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	NSTB/ CTEVT and all sectoral ministries
<b>10200</b>	<b>Expanding various TVE programs for existing workers at farm and off-farm (skilling, reskilling and up-skilling) sectors by 2089.</b>														
10201	Provide training to existing workers using various TVE models	No. of existing worker trained using workplace friendly training methods such as roving	7000 by ENSSURE	60,000 workers/year	7000	10000	15000	20000	25000	30000	35000	40000	50000	60000	All relevant stakeholders (CTEVT Model Schools, MoLESS, MOICS, MoCTCA, MoALD, MoWCSC, MoHP,

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
		instructions													MoYS, MoLMCP, MoFE, PGs, LLs)
<b>10300</b>	<b>Up scaling skilling opportunity (skilling, reskilling and up-skilling) for migrants and returnees by 2089</b>														
10301	Provide training to migrant workers using various TVE models	No. of migrant workers trained	Approximately 5000 (SAMI/ Foreign Employment Board)	200000	5000	5000	20000	40000	60000	80000	100000	120000	160000	200000	MoLESS, MoEST (CTEVT, provinces and LLs)
10302	Provide training to returnee migrant workers	No. of returnee migrant workers trained	1500 (UNDP/SKILLS)	1500 (Madhesh and Lumbini Province) 20000/year	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	As above
10303	Develop mobile application to get graduates employment status and real time whereabouts of the returnees/ migrants	No. graduates and returnees/ migrants tapped for their profile and whereabouts	Does not exist	Mobile application to get status of graduates and real time whereabouts of the returnees/ migrants' operation	x	x	x	x	x	x	x	x	x	x	MoLESS, FEB, MoEST (CTEVT, provinces and LLs)/ Computer Association of Nepal
10304	Establish separate route of returnees at the international arrivals for capturing their profile	Separate route of returnees at the international arrivals in place	Does not exist	Separate route of returnees at the international arrivals in place		x	x	x	x	x	x	x	x	x	MoLESS, FEB, MoEST, Ministry of Home

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
<b>10400</b>	<b>Enhancing geographical, gender and social inclusion through various scholarship programs by 2089</b>														
10401	Increase fullboard scholarship quota for needy people and for ensuring access (from the local levels without TVE schools)	No. of students and local levels with fullboard scholarship to the students from local levels where it is not possible to open/manage schools	80 students/118 local level	440 students /10 per local level	890	790	690	590	440	440	440	440	440	440	CTEVT, CEHRD, PGs and LLs
10402	Increase full board scholarship quota for needy people and for ensuring social inclusion	No. of fullboard scholarships for <i>bipanna</i> , females, <i>loponmukh</i> <i>aadibashi</i> , <i>janjati</i> , Dalit, people from remote areas, differently able people, and conflict affected.	560 (80 person per province)	1120 (160 people per province)	560	840	1120	1120	1120	1120	1120	1120	1120	1120	CTEVT, CEHRD, PGs and LLs
10403-1	Increase classified scholarship ( <i>Lakshit</i> )	No. of classified scholarships per	Each program in each CTEVT school: 3 (4) from institute	Each program in each school: 6 (8)	3 (4)	6(8)	6(8)	6(8)	6(8)	6(8)	6(8)	6(8)	6(8)	CTEVT, CEHRD, PGs and LLs	

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	<i>barga chatrabriti</i> provides tuition fee free education) scheme	program per school		from Government											
10403-2		Continuation of Merit scholarship	Each program in each CTEVT school:1	Each program in each school: 2	1	2	2	2	2	2	2	2	2	2	CTEVT, CEHRD, PGs and LLs
10404	Conduct classified scholarship entrance exam in the same center where general entrance exam is held	Policy in place to conduct classified scholarship entrance exam in the same center where general entrance exam is held	Does not exist	Policy in place to conduct classified scholarship entrance exam in the same center where general entrance exam is held			x								CTEVT, CEHRD, PGs and LLs
10405	Establish Higher level TVE Fund for availing Loan for needy students to study Level 5 and above	Higher Education Fund established to avail loan for higher level TVE for needy learners	Does not exist	Higher Education Fund to avail loan for higher level TVE for needy learners			x	x	x	x	x	x	x	x	MoEST/ MoF
<b>10500</b>	<b>Expanding or abating expansion of TVE institutions/programs as per Geographical and demographical distribution by 2084</b>														
10501	Prepare sector education brief (Feasibility study,	Sector education brief based primarily	Does not exist (Except for few practice in the past)	39 Sector/ sub sector education brief in place			x	x	x						CTEVT

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	projection, structure)	on TVE principles													
10502-1	Expand number of school offering long/ short term programs	Additional no. of schools offering long term programs	1588 (1591-3)	2131 (2152-21)	29	10	10	10	15	20	88	100	126	133	PGs and LLs
10502-2		No. of CoEs/ model schools (for instance tourism and hospitality )	3 (in progress)	21					7	11	18	21			CTEVT
10502-3		No. of short term training providers (each program per provider)	1360	2097	1383	1397	1411	1425	1439	1453	1557	1636	1861	2097	All relevant stakeholders (CTEVT Model Schools, MoLESS, MOICS, MoCTCA, MoALD, MoWCSC, MoHP, MoYS, MoLMCP, MoFE, PGs, LLs)
10503	Establish Schools for Person with Disability	No. of schools for persons	2 but 1 in Biratnagar is not fully functional	33 (2% of 1667)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	PGs, LLs



CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	(PWDs) (0.13%)	with disability													
<b>10600</b>	<b>Scaling up of access and expansion in Technical and Vocational Education by 2089</b>														
10601	Diversify horizontal and vertical expansion of TVE programs - long and short courses - including on green skills/ technology/ energy and jobs	No. of levels with TVE programs	Vertical level up to Diploma (NVQ Level 4) exist. Provision of Horizontal expansion is limited mainly to engineering, agriculture and health sectors.	Vertical level up to Level 7 in credit, competency and modular format allowing multi exit and entry opportunity	L5 / L6 Preparati on	L5 / L6 (Preparati on)	L5 (Progra m Launch )	L6 Progra m Launc h	L6	L6	L6	L6	L6	L7	CTEVT
10602	Increase sectors of economy to offer TVE programs - long and short term programs by also keeping focus on green technology/ energy and jobs	Nos. of sectors with long and short term TVE programs	7 sectors (engineering, health, agriculture, Forestry, hospitality, music, Management/Human ities)	Demand study for increasing sectors of economy such as banking and finance and arts etc.	x	x	x	x	x	x	x	x	x	x	CTEVT
10603	Introduce Preparatory TVE in Grades 6 to 8	Preparatory TVE in Grades 6 to 8 introduced	Some vocational education course is in offer in these grades	Preparatory TVE in Grades 6 to 8 operationalized		x	x	x	x	x	x	x	x	x	MoEST, CEHRD and CTEVT

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency	
					80	81	82	83	84	85	86	87	88	89		
10604	Prepare sector education brief (Feasibility study, projection, structure) for L5 and above	Sector education brief based on TVE principles	Does not exist	19 TVE principles based Sector education brief in place		6	19									CTEVT
<b>10700</b>	<b>Establishing multi entry and multi exit education structure for enhancing access to include work needing learners for 'flexile learning' and 'Earning while Learning' opportunities by 2089</b>															
10701-1	Make all course curriculum modular, competency and credit based and align with NTQF provisions	No. of credit, modular and competency based course curriculum	Does not exist	88 modular, competency and credit based curricula (Long term)			x	x	x	x	x	x	x	x	x	CTEVT
10701-2				271 modular, competency and credit based curricula (Short term)			x	x	x	x	x	x	x	x	x	CTEVT
10702	Open higher level TVE qualification through NTQS based multi entry and exit education structure	Multi entry and multi exist education structure	Does not exist	multi entry and multi exist education structure operationalized			x	x	x	x	x	x	x	x	x	CTEVT
<b>10800</b>	<b>Establishing hostel facility for needy people by 2084</b>															
10801-1	Establish separate	Share of schools	19%	<25%			<20%	<22%	<25%							CTEVT. CEHRD

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	hostel for girls, boys and disability for needy	with hostel facility for needy male students													PGs and LLs
10801-2		Share of schools with separate hostel facility for needy female students	16%	<80%			<30%	<50%	<80%						CTEVT, CEHRD PGs and LLs
10801-3		No. of schools with hostel for Persons with disability (PWD)	12%	<80%			<30%	<50%	<80%						CTEVT, CEHRD PGs and LLs
10802	Develop/refurbish the current infrastructure to ensure access of PWD to instructional learning environment (ILE)	No. of schools with infrastructure developed / refurbished to ensure access of PWD	Does not exist except for two schools	100%		40%	60%	80%	100%						CTEVT, CEHRD PGs and LLs
<b>10900</b>	<b>Introducing multi shift learning opportunity for 'flexible learning' opportunity by 2089</b>														
10901-1	Introduce/scale up multi shift learning opportunity	No. schools offered in multi shift provision	Does not exist	at least 50% of schools in urban areas; at least 25% of schools in rural areas							x	x	x	x	All relevant stakeholders (CTEVT Model Schools, MoLESS,

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
															MOICS, MoCTCA, MoALD, MoWCSC, MoHP, MoYS, MoLMCP, MoFE, PGs, LLs)
10901-2		No. of short term providers offering in multi shift provision	Does not exist/ data of informal sector does not exist	At least 50% of schools in urban and rural area						x	x	x	x	x	All relevant stakeholders (CTEVT Model Schools, MoLESS, MOICS, MoCTCA, MoALD, MoWCSC, MoHP, MoYS, MoLMCP, MoFE, PGs, LLs)

## 5.2.2 Quality and efficiency of and in TVE services

### 5.2.2.1 SWOT analyses

**Strength:** CTEVT has experience in conducting employment market research, a necessary foundation to develop market-relevant standards and curricula. CTEVT has also proven competence in standards and curriculum development following internationally recognized methods. Training Institute for Technical Instructions (TITI) holds expertise in instructors training, and has been serving the nation by providing instructional skills training. It also provides training to administration and financial staff and managers. Its expertise is known in many countries in Asia. It develops instructional training frameworks/ modules for pedagogical and occupational skills to be implemented at national level. It also conducts national-level research and innovation and implements B. Tech programs to strengthen and facilitate quality instructors development.

In terms of physical infrastructure, some of the CTEVT's constituent schools have state-of-art practical learning facilities with well-trained instructors. Collaboration with business and industry for its graduates, another critical element relevant to TVE, is not a new phenomenon for some schools. CTEVT has established system for assessing learners' competence achieved from both short- and long-term programs. It has skills testing system known across the nation, which works closely with business and industry sector. It has also started apprenticeship program for Pre-Diploma level qualification and initiated work on developing three of its schools into Centers of Excellence (CoEs).

**Weakness:** Despite CTEVT's important role in accrediting the institutes/ programs, apart from some progress made in developing 'Accreditation System', its operationalization has not been realized. This finding has remained as an increasing challenge in view of schools affiliated at local levels. Further, unless its arranged, school number will further grow after Provincial TVEAs start affiliating schools from province level. As explained earlier, TVE is often perceived as an option for weak students, particularly the technical stream. This is entirely incorrect. This understanding seems to have influenced the construction of relaxed entry criteria. However, inclusion of mathematics and science, and complex and irrelevant topics in some subjects make successful completion a challenge for many. Students with low academic performance at School Education Examination (SEE) find these subjects difficult. Low cycle completion and survival rates are evidences suggesting the difficulty for students in completing their courses.

Management of instructors, the lifeline of TVE, has been problematic due to an inadequate number of instructors in place. This deficiency has resulted in high level of reliance on part-time instructors which is harmful when seen from the quality assurance perspective. Technical Stream schools lack approved positions for teachers that has forced the schools to hire instructors temporarily or on contract basis. This has given rise to frequent turnover of the instructors. The current instructors training is mostly focused on instructional skills but not on workplace-based and occupational skills upgradation (OSU) training.

Similarly, curricula are heavily theory-focused only allowing limited space for practical training and reflection on learning. Moreover, some contents are irrelevant and unnecessary complicating the timely completion of the syllabus. The current curricula are often criticized for being only directed to provide students access to university education instead of facilitating the process of creating competitive workforce. These problems were common across all the programs. Ceremonial participation of BIAs was noted as another critical limitation in the context of developing standards and curricula. The surprising but disappointing fact is inconsistency between curricula offered by CTEVT and CEHRD for the same programs after Grade 10 as both these bodies operate under MoEST. Another striking fact is lack of coherence between CTEVT skills testing levels and NVQ levels constructed for currently offered programs. Related to this problem is inconsistency between standards and curricula developed by NSTB and those developed by Curriculum Development Division. Inadequate

machine and equipment in many schools was reason for serious issues with quality and efficiency aspects in the sector.

Absence of formative monitoring that focuses on measurement of learning outcomes is one major limitation in the current assessment system. Examinations are held just to test the theory-focused knowledge while achievements are measured in percentage as in general education. Considering the mandate of National Examination Board (NEB) to take examination of up to Grade 02 and provisioned duration of Diploma and Technical Stream (Diploma programs: 4 years and Technical Stream: 2.2 years<sup>57,58</sup> after SEE), the vision of National Education Policy (2009) to bring TVE examination under NEB appears to be not only contradictory but could be legally challenging as well. Even more serious problem in this regard is the TVE graduates must be assessed based on the competence assessment through practical assessment in the real workplace which calls for reforming the current assessment practices at NEB. From this perspective, the current practice of NEB is grossly inadequate. This limitation to some extent exists even with OCEs in CTEVT. The latter is severely criticised by students/graduates based on duration taken to publish results after completion of the final assessment event.

Quality has impact on internal efficiency, which is measured by indicators, including promotion rate, drop out rate, cycle completion and survival rates. As per the TVET SAR 2022 findings, number of learners in technical stream declined as they moved to upper Grades. This suggests dropout rate of the learners is high and only few learners reach Grades 00 and 02. Similarly, very small cycle completion and survival rates pose serious questions the TVE efficiency. Most of these problems are also seen in short-term skills training programs rampantly available across the country, now being organized even at wards within Local levels. These activities are often criticised of for being organized for pleasure than for outcomes (Box 5.3).

**Box 5.4:** During a Business+ TV Channel show dated 07 September 2022: 7.27 pm, a skills training participant said, “training programs appear to have been arranged for *ramailo* (for pleasure not for employment outcomes)”.

**Opportunity.** Full operationalization of accreditation system could help create positive pressure to enhance schools' quality. Implementation of Developing-A-Curriculum (DACUM) process by including experts (after verification from On-the Street Research) can make curriculum responsive to market. Other methods, such as functional analyses and co-design could be also helpful. Proven expertise with TITI could be expanded across the country by establishing Provincial - Instructors Training Institutes (P-ITIs) to prepare instructors' competency (refer Figure 4.2). The opportunity of mobilizing Chief/ Consultant Master Trainers at TITI could be availed at P-ITI for training of Technical Stream and instructors in private sector instructors. Similarly, introduction and scaling up of workplace-based training would not only enhance quality but also widen opportunity for graduates' employment opportunity. Further, training and orientation of school heads/ principals and instructors can foster an opportunity to reform school level instructional-learning environment (ILE). Opportunity also exists to train relevant MoEST staff at federal level and other staff at province, district and local levels. Possibility of mobilizing BIAs through institutional level and arranging a Memorandum of Understanding (MoUs) through Sector Skills Councils (or any other names and structure agreed with BIAs<sup>59</sup>) continues to exist.

<sup>57</sup> According to CEHRD guidelines, the Technical Stream OJT has to be completed within 6 months after Grade 12 study completion.

<sup>58</sup> According to National Education Act (8<sup>th</sup> amendment), the OJT was provisioned as '1 year' after completion of Grade 12 study.

<sup>59</sup> An alternative to SSC as proposed by Federation of Nepalese Chamber of Commerce and Industries (FNCCI) has been presented in Annex 19.

**Threats.** Lack of quality ILE with low internal efficiency is likely to prepare incompetent graduates. It could jeopardize the TVE objectives - employment and further education - eventually, making the investment futile. Loans need to be cautiously invested in areas such as infrastructure development with a full assurance of bringing its outcomes.

### 5.2.2.2 Lessons learnt

Enhancing quality requires designing right curricula, having competent instructors and arranging appropriate physical infrastructure in place. Similarly, domestically and internationally proven workplace-based ILE, such as apprenticeship models needs scaling up for better quality and relevance. Merely school-based learning has proven to be insufficient and appears to be even more of a need in Technical Stream schools than in others. Quality and relevance of stand-alone skills training needs to be assessed with a view of making it part of a particular long-term TVE qualifications.

### 5.2.2.3 Reform agendas

The reform agendas that need to be addressed through reform initiatives related to quality are summarized in Table 5.3.

Table 5. 3: Relevant reform agendas

Areas of reform	Reform agendas
Accreditation	Operationalizing accreditation system for both CEHRD and CTEVT, and short-term programs and providers.
Entry criteria	Enhancing entry criteria and putting support provisions for weak entrants and learners.
Instructors' management	Ensuring in place the followings: <ul style="list-style-type: none"> <li>• Required number of competent instructors in place for quality instructional-learning environment (ILE)</li> <li>• Qualified instructors</li> <li>• Appropriately trained instructors <ul style="list-style-type: none"> <li>○ Workplace-based trained and</li> <li>○ Technical training/ Occupational skills upgradation (OSU)</li> </ul> </li> <li>• Reduction of instructor turnover</li> </ul>
Standards/ curricula	Ensuring: <ul style="list-style-type: none"> <li>• Alignment of CEHRD and CTEVT qualifications <ul style="list-style-type: none"> <li>○ Learning objectives vis-à-vis entry criteria</li> <li>○ Content and duration of the course offered</li> <li>○ Recognition</li> </ul> </li> <li>• Improvement in curricula structure – share of theory-practical</li> <li>• Promotion of innovations</li> <li>• Inclusion of enterprises development/ self-employment orientations</li> <li>• Incorporation of workplace-based training/OJT in curricula</li> <li>• Development/revision of standards and curricula: <ul style="list-style-type: none"> <li>○ Based on NVQ levels</li> <li>○ Addressing the BIAs needs – domestic and international employment markets</li> <li>○ In view of Forth industry revaluation (IR4) and aggressive progress in information technology (IT)</li> </ul> </li> <li>• Ownership of BIAs while developing standards and curriculum</li> </ul>
Machine and equipment	Ensuring: <ul style="list-style-type: none"> <li>• the availability of machine and equipment required by curriculum</li> <li>• BIAs' engagement for offsetting the machine and equipment arrears/deficit</li> </ul>

Areas of reform	Reform agendas
Assessment	Improving: <ul style="list-style-type: none"> <li>• Formative assessment</li> <li>• Project/work place-based learning</li> <li>• Final assessment in relation to:               <ul style="list-style-type: none"> <li>○ Contents: both theory and practical</li> <li>○ Duration between examination and results publication</li> </ul> </li> </ul>
Efficiency	<ul style="list-style-type: none"> <li>• Reducing dropout rate and increase promotion rate</li> <li>• Enhancing the cycle completion and survival rates.</li> </ul>

#### 5.2.2.4 Reform objectives and strategies

Reform objectives	Strategies
Improve Quality (instructors, standards and curriculum, instructors' preparation, physical infrastructure and examination/ assessment) and Efficiency of TVE services	Operationalizing the Accreditation system and facilitating its recognition in international level as well by 2089
	Ensuring the number of instructors as per curriculum requirement by 2089
	Ensuring quality instructional staff in place and institutionalizing their capacity development opportunities by 2089.
	Reducing instructors' turnover by 2083.
	Revising entry criteria and bridging inputs, and share of science and mathematics in learning resources by 2089
	Improving laboratories by 2089.
	Widening workplace based practical training by 2089.
	Enhance cross-fertilization in ILE through ICT based distance/virtual learning and e-learning resources by 2089.
	Improving internal efficiency by 2089.
	Availing technical M&E system by 2089.
	Enhancing assessment system by 2089.
	Strengthening institutional capacity of assessment/ examination system (OCEs) by 2089.
Managing accredited skill test centres by 2089.	



### 5.2.2.5 Reform plan for Quality and Efficiency of and in the TVE services

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency	
					80	81	82	83	84	85	86	87	88	89		
<b>20000</b>	<b>Improve Quality (instructors, standards and curriculum, instructor's preparation, physical infrastructure and examination/ assessment) and Efficiency of TVE services</b>															
<b>20100</b>	<b>Operationalizing the Accreditation system and facilitating its recognition in international level as well by 2089.</b>															
20101	Operationalize TVE accreditation system as a Quality Assurance service under CTEVT (Refer Action CODE 40403 also)	Accreditation bylaw in place	Not available	Approved accreditation bylaw	x											CTEVT
20102	Accredit TVE schools and programs	Share of accredited programs/ institutes/ schools under CTEVT and CEHRD (%)	Program/institutes accreditation: 0 (Some preparatory works has been done)	50% (Institutes/programs under both CTEVT and CEHRD)	5%	10%	10%	15%	15%	25%	25%	40%	40%	50%	CTEVT	
20103	Operationalize instructor's licensing system with Quinquennial (5-yearly) renewal provision	Instructors/ teachers licensing system in place	Does not exist	Instructors/ teachers accreditation system operational			x	x	x	x	x	x	x	X	CTEVT, TITI	
<b>20200</b>	<b>Ensuring the number of instructors as per curriculum requirement by 2089.</b>															
20201	Operationalize instructors' management plan for long term programs	Sector instructor's management plan in place	Does not exist	Sector plan for instructors management operationalized		x	x	x	x	x	x	x	x	X	CTEVT/ CEHRD/ P-TVEA/ LL	
20202	Establish Provincial Level Instructors Service Commission for all working under Provincial TVE Authority and Local Levels	Provincial level TVE Instructors Service Commission	Does not exist	7 Provincial level TVE Instructors Service Commission		x									Provincial MOSD/ MoEs	

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
20203	Hire instructors as per approved organogram	No. of additional instructors	18602	Additional 17558	754	260	260	260	3882	520	2288	2600	3276	3458	CTEVT/CEHRD/P-TVEA/LL
<b>20300</b>	<b>Ensuring quality instructional staff in place and institutionalizing their capacity development opportunities by 2089.</b>														
20301-1	Put instructors preparation plan in place	Instructors preparation plan in place	Does not exist at sector level (TITI has its own training plan)	Training plan in place and operational		x	x								CTEVT, TITI/CEHRD/P-TVEA/LL
20301-2		Teacher standards in place	Teacher standards does not exist	Teachers standards operationalized			x								CTEVT
20302	Revise instructors' qualifications and recruitment process (written/ practicum/ aptitude test) to ensure qualified instructors/ teachers in place	Instructors/ Teachers qualifications and recruitment process are revised also aligning with NTQS specified instructors/ teachers' standards	Both CTEVT and CEHRD have teacher recruitment criteria and process but needs revision	Revised instructors/ teachers' qualifications and recruitment process are in operation		x	x	x	x	x	x	x	x	x	CTEVT/CEHRD/P-TVEA/LL
20303	Establish 8 weeks long OIS training focusing on pedagogy along with required educational qualification to sit for licensing examination	8 weeks long OIS training focusing on pedagogy along with required educational qualification to sit for licensing examination in place	Does not exist	8 weeks long OIS training requirement for sitting in instructors licensing examination operational			x	x	x	x	x	x	x	X	CTEVT, TITI
20304	Ensure 8 weeks' professional development training (PDT) to working instructors including ICT	Share of working instructors with instructional skills training	Does not exist	100%	10%	50%	100%	100%	100%	100%	100%	100%	100%	100%	CTEVT, TITI/CEHRD/P-TVEA/LL

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	based learning management system														
20305	Increase occupational skills upgradation training to instructors (including various models such as apprenticeship and enterprise development) also targeting 'Make/made in Nepal' endeavors and environmental conservation (green skills/technology/jobs/ energy)	Share of occupational skills upgradation training graduates	Pre-diploma: 15.3; Diploma: 2.5	50%	20%	30%	50%	50%	50%	50%	50%	50%	50%	50%	CTEVT, TITI/ CEHRD/ P-TVEA/ LL
20306	Introduce pre-service training to aspiring TVE instructors	Pre-service training to aspiring TVE instructors	Some provision exists but due to urgency of class room delivery this has not been possible	Flexible Pre-service training to aspiring TVE instructors with flexible provisions			x	x	x	x	x	x	x	x	CTEVT, TITI/ CEHRD/ P-TVEA/ LL
20307	Provide training to management/ administrative staff	Share of management and administrative staff trained	Does not exist	75% of existing administrative staff	10%	20%	30%	40%	50%	55%	60%	65%	70%	75%	CTEVT, TITI/ CEHRD/ P-TVEA/ LL
20308	Provide training to MoEST and province, district and local level personnel	Share of MoEST and province, district and local level personnel	Does not exist	25% of existing MoEST and province, district and local level personnel		10%	20%	25%							MoEST/ CTEVT
20309	Provide higher degree educational opportunity for underqualified instructors only	Share of Bachelor's degree study opportunity for under	Technical stream:10.4%	50%		5%	10%	15%	20%	30%	35%	40%	45%	50%	CTEVT/ CEHRD/ P-TVEA/ LL

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
		qualified instructors													
<b>20400</b>	<b>Reducing instructors' turnover by 2083.</b>														
20401-1	Reduce instructors' turnover	Rate of instructors' turnover	Technical stream: 15.3%	Technical stream: 5%		10%	7%	5%							CEHRD, PGs; LLs
20401-2			Pre-diploma: 4.8%	Pre-diploma: 2%				2%							CTEVT, PGs and LLs
20401-3			Diploma: 13.2%	Diploma: 5%		10%	7%	5%							CTEVT, PGs and LLs
20402-1	Introduce institute organogram with provision of permanent instructors	Share of schools with approved organogram	Does not exist	100%	50%	75%	100%								CTEVT/ CEHRD/ P-TVEA
20402-2		Share of instructors with permanent position	CTEVT: 594 CEHRD: 1940	75%			25%	50%	75%						CTEVT/ CEHRD/ P-TVEEA
20403	Ensure schools have all instructors as per the approved organogram	Share of schools with teachers as per approved organogram		100%			x	x	x	x	x	x	x	x	CTEVT/ CEHRD/ P-TVEA/LL
20404	Establish school fund to engage instructor and student in production activities (Including earning from consultancy services by teachers and students)	Share of School with school fund	54.P% (Some school funds are not exactly established and operational as provisioned in CTEVT bylaw)	80%	60%	65%	70%	75%	80%	80%	80%	80%	80%	80%	CTEVT/ CEHRD/ P-TVEA/LL

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency	
					80	81	82	83	84	85	86	87	88	89		
20405	Reduce share of part time instructors	Share of part time instructors	Technical stream:25%:Pre-diploma:25% and diploma: 35%	Technical stream and pre diploma:0% diploma: 25%		25% (Pre-Diploma) ; 35% (Diploma)	30% (Diploma)	25% (Diploma)								CTEVT/ CEHRD/ P-TVEA/ LL
20406	Mobilize expert worker/ successful entrepreneurs from world-of-work to deliver lectures/ exchange session at school level	Share of Schools mobilizing expert worker/ successful entrepreneurs from world-of-work to deliver lectures/ exchange session	Does not exist	80%		10%	30%	40%	50%	80%	80%	80%	80%	80%		CTEVT/ P-TEVA/ Lls
<b>20500</b>	<b>Revising entry criteria and bridging inputs, and share of science and mathematics in learning resources by 2089</b>															
20501	Revise entry criteria in Diploma level qualifications	Revision of course curricula entry criteria completed	Even SEE graduates with Grade 'D' are allowed to join TVE courses	Entry criteria revised to screen the students/ learners capable to complete the program	x	x										CTEVT, NSTB
20502	Ensure bridging inputs for entrance weak SEE graduates.	Bridging inputs system available for weak SEE graduates	Does not exist	Bridging inputs system available for weak SEE graduates	x	x	x	x	x	x	x	x	x			CTEVT, NSTB
20503	Review weightage of science and mathematics in curricula to ensure NTQF Level descriptor alignment	Share of curricula with NTQF level descriptor aligned weightage of science and mathematics	Does not exist	100%			25%	80%	100%							CTEVT, NSTB

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
<b>20600</b>	<b>Improving Laboratories by 2089.</b>														
20601	Increase the share of schools/ institutes with more than 75% workable machine and equipment	Share of schools/ institutes with more than 75% workable machine and equipment	Technical stream: 61%; Pre-Diploma: 61%; Diploma: 58%	100%			80%	100%							CTEVT/ CEHRD/ P-TVEA/ LL
20602		Share of schools with MoUs for addressing the above gap (25%) with relevant machine and equipment	Does not exist	90%		25%	30%	35%	40%	70%	75%	80%	85%	90%	CTEVT/ CEHRD/ P-TVEA/ LL
<b>20700</b>	<b>Widening workplace based practical training by 2089.</b>														
20701	Make work-based learning /OJT mandatory in all TVE programs	% of long term TVE courses with OJT provision	Technical stream: 100% (but not effective);	Technical stream: 100% (in actual world of work);	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	CEHRD
20702			Diploma: does not exist in structured way	Diploma: 100%			25%	80%	100%	100%	100%	100%	100%	100%	CTEVT
20703		% of short term TVE courses with OJT provision	All most all	Continue OJT in actual world-of-work in all training	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	CTEVT
20704	Establish effective collaboration between TVE system and BIAs.	Share of schools collaborating with BIAs through MoUs	23% schools having collaboration with BIAs for OJT/Internship/Employment facilitation	90%		25%	30%	35%	40%	70%	75%	80%	85%	90%	CTEVT/ P-TEVA/ LLs
<b>20800</b>	<b>Enhance cross-fertilization in ILE through ICT based distance/virtual learning and e-learning resources by 2089.,</b>														

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
20801	Enhance ICT and e-learning system for distance/virtual learning (collaboration with expert teacher not available in any specific school/ province or in the country)	Share of schools with ICT system for this purpose (%)	2% (34 schools)	90%		5%	10%	15%	20%	50%	60%	70%	80%	90%	CTEVT/ CEHRD/ P-TVEA/ LL
<b>20900</b>	<b>Improving internal efficiency by 2089.</b>														
20901	Merge schools with less than the targeted enrolment	No. of schools meeting the target enrolment	Does not exist	Merge schools with less than 50% enrolment	x	x	x	x	x						CTEVT/ CEHRD/ P-TVEA/ LL
20902	Maintain teacher-student ratio	Share of teacher-student ratio	Technical stream/ Diploma/Pre-Diploma	Technical stream/ Diploma/Pre-Diploma; Engineering: 1:48; Other courses: 1:40	x	x	x	x	x	x	x	x	x	x	CTEVT/ CEHRD/ P-TVEA/ LL
20903	Increase cycle completion rate (for students who complete specific qualification of study continuously, semester 1 to 4)	% of students graduating within curriculum specified duration	Technical stream: no data available; Pre-Diploma: 38%; Diploma:52%	75%			60%	60%	75%	75%	75%	75%	75%	75%	CTEVT/ CEHRD/ P-TVEA/ LL
20904	Increase survival rate (within additional 3 years duration) (for students who complete specific qualification of study continuously, semester 1 to 4)	% of students graduating after 3 years of curriculum specified duration	Technical stream: 57.9%; Pre-diploma: Diploma:59%	90%					90%	90%	90	90%	90%	90%	CTEVT/ CEHRD/ P-TVEA/ LL
20905	Increase promotion rate to Grade 12 (diploma level)	Share of promotion rate (%)	Technical stream: 61% (concept does not exist in CTEVT)	Technical stream: 90%			70%	80%	90%	90%	90%	90%	90%	90%	CTEVT/ CEHRD/

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
															P-TVEA/LL
20906	Put aptitude test system in place for short term training as part of enterprise development process	Aptitude test system in place for short term training operational	Only some form of interview takes place but not in systematic way	Aptitude test system in place for short term training operational	x	x	x	x	x	x	x	x	x	x	Provinces, LLs and all offering short term training
<b>21000</b>	<b>Availing technical M&amp;E system by 2089.</b>														
21001-1	Operationalize technical backstopping (Monitoring) system for Provincial and Local level	Technical backstopping system in place	Some M&E structure within CTEVT and CEHRD exist but they are not comprehensive	Technical backstopping system operational at Federal level with Provincial and Local level participation		x	x	x	x	x	x	x	x	x	CTEVT/CEHRD/P-TVEA/LL
21001-2				Technical backstopping system operational at Provincial level with Local level participation		x	x	x	x	x	x	x	x	x	CTEVT/CEHRD/P-TVEA/LL
<b>21100</b>	<b>Enhancing assessment system by 2089.</b>														
21101	Implement module/chapters/ tasks based competence assessment led formative assessment for measuring learning outcomes	Share of schools with formative assessment with practical competence assessment	Current practice is close to theory based unit tests	Formative assessment with module wise practical assessment system institutionalize within each institute			10%	25%	50%	90%	90%	90%	90%	90%	Subject teacher/Instructors at school level
21102	Establish practice of Instructors' evaluation by students	share of schools with practicing instructors	Does not exist	90%			10%	25%	50%	90%	90%	90%	90%	90%	Headteacher/Principal



CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
		evaluation by students													
21103-1	Institutionalize practical based assessment (final examination) system	Practical assessment component in all programs in final examination	Practical assessment system in pre-diploma programs	Practical assessment system institutionalized during final assessment in all programs (Technical stream, Pre/ Diploma)			x	x	x	x	x	x	x	x	CTEVT/ CEHRD/ P-TVEA/ LL by mobilizing subject specific accredited Assessors
21103-2		Team of assessors used for summative assessment to ensure practical competency	Does not exist	System to hire at least 2 assessors for assessing practical competency in each institute			x	x	x	x	x	x	x	x	CTEVT/ CEHRD/ P-TVEA/ LL by mobilizing subject specific accredited Assessors
<b>21200</b>	<b>Strengthening institutional capacity of assessment/ examination system (OCEs) by 2089.</b>														
21201-1	Institutionalize Office of Controller of Examination (OCEs) capacity to swiftly facilitate examination and ensuring timely certification (not more than two months)	Reformed CTEVT OCEs	OCEs exist but operational in traditional approach	CTEVT OCEs reformed to expedite results publication and certification		x	x	x	x	x	x	x	x	x	CTEVT, OCE
21201-2		OCEs is full house with the approved staff structure	Staff are deputed from other schools/ offices	100%		100%	100%	100%	100%	100%	100%	100%	100%	100%	CTEVT, OCE
21202	Restructure CTEVT OCEs examination/ assessment and certification system with purpose to	OCEs delegates its examination authority at province level	Although examinations are done by province levels, copies are checked at the federal level;	System specifying examinations are conducted by province CTEVT office		x	x	x	x	x	x	x	x	x	CTEVT, OCE

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	delegate the processes to CTEVT's province offices	(through revision in relevant Byelaw)		and results are shared through IT with OECs											
21203	Reduce the duration between final examination and certification	Number of months taken between examination and results publication	It takes almost 12 months	System to publish results in maximum of 2 months established		x	x	x	x	x	x	x	x	x	CTEVT, OCE
21204	Digitalize outcomes of both formative/internal assessment and final assessment for making quick and reliable	All assessment results are digitalized to ensure the real time sharing	Does not exist	Both formative and summative assessment are digitalized (real time data transfer to the Federal/Provincial Exam System)			x	x	x	x	x	x	x	x	CTEVT, OCE
<b>21300</b>	<b>Managing accredited skill test centers by 2089.</b>														
21301	Establish/ upgrade accredited skill test centers	No. of accredited skills test centers	61	120		70	80	90	100	110	120	120	120	120	CTEVT, NSTB

## 5.2.3 Results (outputs and outcomes) and Relevance of TVE services

### 5.2.3.1 SWOT analyses

**Strength.** The TVE system has made significant contribution, through outputs such as preparation of graduates of different duration (long-term and short term) and development of systems and tools, to facilitate the TVE operations. Similarly, it has emphasized on research products, skills standards, curricula and learning materials. These resources are utilized by various stakeholders in various ways. For instance, standards and curricula are used in short-term training; skills testing is used for ascertaining graduates competencies ; and TITI expertise plays an important role in preparing instructors and managers. Also, instructors' training of TVE has an international repute. Similarly, available evidence suggests that TVE graduates are engaged in employment market. Anecdotes suggest that they have, to some extent, replaced immigrant workers in the respective fields. Also, CTEVT, through various policy instruments, has made effort to enhance collaboration with BIAs.

**Weaknesses.** The TVET SAR, 2022 presents considerably low number of graduates and low employment rates annually, which allows BIAs to comment that "they are unable find TVE graduates for their enterprise/ industry". Only limited number of accredited skills tests centres exist and that too do not entirely meet the NVQS standards. Occasional as well as uncertain number of annual knowledge management events and products exist. Lack of authentic and automated LMIS established by/ through SSCs has been a perennial problem. Apart from quality issue, ceremonial representation of BIAs in various bodies under CTEVT - Assembly and Council - could partially explain crux of the relevance issue. In the age of ChatGPT and growing concerns for 'empowering learners at their own workplace', even a minimum efforts are not made in searching market relevance. Even if some efforts are made in this regard, they have been proven to be insufficient. Even the SSCs, mainly due to the issue with their formation process, have yet to assume their actual roles: a) establishing labour market information system (LMIS); b) policy formulation and implementation; and c) employment facilitation. This problem at macro level is found to have replicated at the school level where only one member was a BIA representative on the average of every 6.5 members of the SMC exists.

**Opportunity.** Possibility of increasing numbers of graduates and employment opportunities by establishing productive collaboration with SSCs to scale up apprenticeship programs, also for Diploma level, exists. By improving curricula, possibility of facilitating self-employment and enterprise development also exists. Further, application of NTQF could help ensure recognition and also prepare higher qualification level graduates. They could include Advance Diploma (Level 5: expert workers) and Bachelor's level (Level 6), and even beyond. Seen from this perspective, TVE holds the potentiality to become instrumental for replacing the foreigners with all levels of qualifications/ expertise.

Making departure from wage employment focused learning and inclusion of self-employment/ enterprise development courses could contribute in enhancing employment rates. BIAs continuously complain about lack of competent workforce. Hence, collaborative efforts - implementation, monitoring and assessment - could help prepare industry-ready graduates. It will be beneficial to both the BIAs and learners. Productive partnership with BIAs/ economic sectors, therefore, could ultimately help enhance relevance and recognition of graduates. BIAs are even ready to support government in preparing mobile applications to trace and connect the graduates with employers. Further, as the provinces and local levels are close to the BIAs/ economic sectors, effective coordination between these stakeholders could be achieved. List of occupations/ jobs with employment potential as identified by various studies is presented in Annex 21a to 21c. This list has relevance on revising TVE programs. Similarly, the MoEST data on No Objection Certificate (NoC) for period between Paush 2077 and Chaitra 2078 suggests that one-third (32%) the NoC recipients had it for pursuing TVET

relevant study in foreign countries (Annex 22). These findings also imply the need for both vertical and horizontal expansion of TVE programs in the country. This could not only retain workforce in the domestic employment market but it could also save millions of rupees syphoning out of the country. For instance, accordingly to the news published in the *Online Khabar* on 30 Kartik 2079, NRs. 18 million was mobilized for students' foreign study<sup>60</sup>. *The Kantipur* also reported similar news on 21 Nov 2022<sup>61</sup>.

**Threats.** Limited number of competent graduates from both the long- and short-term programs will continue to lose the employment potential in the both domestic and foreign employment market. Similarly, lack of employment even after completion of all kind of learning/ graduation will likely make all investments and efforts futile. Finally, lack of partnership with BIAs will continue to widen trust-deficit between the TVE system and business and industry/ economic sectors as these graduates will lack competency that the employers would be interested in.

### 5.2.3.2 Lessons Learned

As the TVE courses require extensive use of machine and equipment, and materials and resources for practical training, developing and refining TVE outputs becomes expensive and therefore, justifies sector investments. The TVE services does not end here as the graduates need to get employment of any kind – wage or self - and should present the positive changes in income after such employment. A BIA collaborated TVE program could lead to employment even before graduation. However, the TVET SAR 2022 shows that achievement in this regard is currently weak and varies significantly by TVE providers and qualification levels. Low employment rate among Technical Stream programs could be due to the fact that parents/ students are more interested in further education than in employment. However, as explained above, such factor cannot justify the investment made. Therefore, unless corrective measures are taken to enhance employment outcomes, TVE programs will not differ from the general education. According to the participants at planning workshops, the TVE system has risk of preparing "unemployed technical workforce and will not be different from general education". Changing this situation requires, along with other efforts, modification in curriculum aiming self-employment and enterprise development. Ensuring higher level of relevance also requires productive partnership with BIAs and economic sectors. Unless the stakeholders like BIAs have productive partnership with TVE system built on legislative instruments, the trust-deficit between the two is likely to continue or even grow wider. This doubt is supported by the current status of SSCs which have been proven to be less effective than they were expected. Some SSC leaders opine that the current SSC are CTEVT committees and they participate upon request from CTEVT engage on the attached agenda.

### 5.2.3.3 Reform agendas

The issues/ problems that need to be addressed through reform initiatives under outputs/ outcomes and relevance pillars are summarized in Table 5.4.

Table 5 4: Relevant reform agenda

Areas of issues	Reform agendas
Outputs	Increasing: <ul style="list-style-type: none"> <li>▪ Quality and relevancy ensured graduates number through long and short term programs.</li> <li>▪ Trained instructors/ staff, particularly technical training/ OSU.</li> <li>▪ Skills testing graduates' number or RPL opportunities.</li> </ul>

<sup>60</sup> <https://au.onlinekhabar.com/2022/11/1218620>

<sup>61</sup> <https://ekantipur.com/business/2022/11/21/166898045909639134.html>.

Areas of issues	Reform agendas
	<ul style="list-style-type: none"> <li>▪ The ILE resources – standards, curriculum and other instructional-learning materials (ILMs) by including enterprise development courses to contributing to ‘Make/ made in Nepal’ initiative.</li> </ul>
Outcomes/ relevance	<ul style="list-style-type: none"> <li>▪ Putting the NTQF aligned National Standards of Classification of Occupations (NSCO)/ Dictionary of Occupation list in place and operationalize it.</li> <li>▪ Making learning resources market relevant and also facilitate multi exit from and entry to education.</li> <li>▪ Developing of enterprise development programs and offer them targeting preparation of entrepreneurial workforce capable to contribute to ‘Make/made in Nepal’ initiative.</li> <li>▪ Getting close to a real-time updates on business and industry workforce needs.</li> <li>▪ Enhancing employment outcomes/ relevance of TVE graduates.</li> <li>▪ Enhancing BIAs participation at all TVE system structure particularly at institute level.</li> <li>▪ Increasing employment rate in all forms (salary/wage and self-employment, and enterprise development) with positive change in income.</li> <li>▪ Encouraging consumers to use Nepalese products.</li> </ul>

#### **5.2.3.4 Reform Objectives and strategies**

Reform objectives	Strategies
Enhance outputs of TVE services	<ul style="list-style-type: none"> <li>Continuing publication of TVE sector research reports by 2089.</li> <li>Developing NVQF based learning resources to facilitate ‘flexile learning’ and ‘Learning while earning’ opportunities by including enterprise development components to contribute to ‘Make in Nepal’ initiative by 2089.</li> <li>Increasing number of graduates by 2089.</li> <li>Enhancing utilization of TVE outputs (outcomes) and relevance by 2089.</li> <li>Increasing BIAs participants in TVE processes for relevance by 2082.</li> <li>Increasing number of SSCs for relevance by 2089.</li> </ul>

### 5.2.3.5 Reform plan for outputs, outcomes and relevance

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
30000	Enhance outputs/ outcomes and relevance of TVE services by 2089.														
30100	Developing NTQF (NVQF) based learning resources to facilitate 'flexible learning' and 'Learning while earning' opportunities by including enterprise development components to contribute to 'Make in Nepal' initiative by 2089.														
30101	Reform curricula for implementation of NTQF (NVQF) and also facilitating of multi-exit/entry provision for facilitating 'self-financed learning' and offering seamless academic and self/employment career path	All curricula based on NTQF	Does not exist	NTQF based curricula in implementation	x	x	x	x	x	x	x	x	x	x	CTEVT
30102	Reform standards and curricula by aligning with NTQF level descriptors	No. of NTQF aligned competence standards	2 national competence standards prepared aligning with NVQF targeting recognition for employment. But this practice for long-term qualifications/programs does not exist	At least 225			40	120	180	225					CTEVT (NTQAA), NSTB
30103		No. of NTQF level descriptors aligned short term course curricula by including	271 curricula (But not aligned with NTQF)	Of the 271 existing short-term curricula, update at least 150 curricula		30	80	130	150						CTEVT, NSTB

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
		enterprise development courses to contributing to 'Make/ made in Nepal' initiative.		aligning NVQF level descriptors											
30104		No. of new Livelihood training curriculum	Does not exist.	At least 100		30	60	100							CTEVT, NSTB
30105		Modular (affixing as short-term) courses of Pre-Diploma and Diploma with also including customized enterprise development components	Practice does not exist	At least 320 modular course as part of long term programs		50	100	160	220	270	320				CTEVT, NSTB
30106		New curricula development for Level 5 also including customized enterprise development components	Does not exist	At least 36		18	36								CTEVT
30107		New curricula development for Level 6 also including customized enterprise development components	Does not exist	At least 18			9	18							CTEVT

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
30108		Bridging inputs mechanism in place to allow movement between TVE and General education	Doesn't not exist	Bridging inputs mechanism in place to allow movement between TVE and General education and also for supporting weak students in operation			x	x	x	x	x	x	x	x	CTEVT/ universities
30109	By remaining within the space determined by NTQF level descriptors, make provision of occupational, health and safety and other soft skills provisions in the curricula	Provision of occupational, health and safety and other soft skills provisions in the curricula in place	Some provisions exist	NTQF level descriptors accommodated provision of occupational, health and safety and other soft skills provisions in the curricula	x	x	x	x	x	x	x	x	x	x	CTEVT
<b>30200</b>	<b>Increasing number of graduates</b>														
30201	Increase number of graduates in long term (pre-Diploma, Diploma and advance diploma) and short term programs	No. of students in long term programs	Technical stream:16505; Pre-Diploma:240840; Diploma:96227; Total:353572	At least 166277	25789	36997	47396	59013	94147	95659	111629	121766	149947	166277	CTEVT/ Ministries/ CEHRD/ P-TEVA/ LL
30202		No. of trainee's in short term programs	skills test number: as proxy indicator	At least 226464	79299	86877	95278	112398	125539	140456	157404	176675	201025	226464	CTEVT/ Ministries/ CEHRD/ P-TEVA/ LL



CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
<b>30300</b>	<b>Enhancing utilization of TVE outputs (outcomes) and relevance by 2089.</b>														
30301	Institutionalize NTQF level descriptor-based ILE resources (standards and curricula) implementation	Share of stakeholders (ministries, INGOs, NGOs at federal and other levels) using NTQF level descriptor-based ILE resources (standards and curricula) utilized the sector	Not applicable as NTQF level descriptors-based ILE resources so far does not exist; initiation in this regard has started	100%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	P-TVEA/ LL/ School
30302	Enhance graduates' employment rate	Share of employment rate	Technical stream: 29%; Pre-Diploma: 66%; Diploma: 60%; Overall 52%	At least 80%	54%	56%	58%	61%	63%	66%	69%	72%	76%	80%	BIAs/ CTEVT/ CEHRD/ P-TEVA/ LL
<b>30400</b>	<b>Increasing BIAs participants in TVE processes for enhancing relevance of TVE resources by 2082.</b>														
30401-1	Ensure all TVE bodies have at least 50% members (outside Chair) are BIA representatives	Share of TVE bodies (CTEVT Assembly, councils, NSTB, SSCs) with at least 50% BIAs' members	CTEVT Assembly; 17%	CTEVT Assembly; 50%		x	X								MoEST/ GoN
30401-2			CTEVT Council: 0	CTEVT Council: 50%		x	X								MoEST/ GoN
30401-3			SSCs: above 90%	SSCs: above 90%		x	X								MoEST/ GoN
30401-4		No. of TVE schools with Management Committees with more than 50% BIA members	34% schools have on average 15% BIA members in SMC	Publicly funded schools: 100% have SMCs (39% of total are privately		x	X								MoEST/ CTEVT/ CEHRD/ MoSDs/ MoEs/ Local levels

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
				funded schools)											
30402	Ensure all heads of relevant BIAs are by-default members of relevant TVE bodies (CTEVT Assembly, council etc.)	Share of TVE bodies (CTEVT Assembly, councils, NSTB, SSCs etc) with relevant BIA chairs/ Vice chairs as default members	This practice does not exist	All heads of BIAs are by default members of relevance TVE bodies (CTEVT Assembly, council etc.)		x	X								MoEST/ CTEVT/ CEHRD/ MoSDs/ MoEs/ Local levels
30403-1	Provide incentives for instance, Tax rebate or concessions on custom duty to ensure BIAs' productive engagement in TVE governance and operations	Legislative instruments to incentivize BIAs engagement in TVE in place	No such provision exists	Legislative instruments to incentivize BIAs engagement in TVE in operation			x	x	x	x	x	x	x	x	MoF/MoEST/ CTEVT/ CEHRD/ MoSDs/ MoEs/ Local levels
30403-2	Conduct further studies on system for incentivizing business and industry to encourage productive partnership	Further studies conducted for putting relevant Act (legislative instrument) in place with BIA incentive provision such as; tax rebate and redemption in custom duty	Not applicable	Further studies conducted for putting Relevant act in place with BIA incentive provision such as; tax rebate and redemption in custom duty			x	x							MoF, MoEST
<b>30500</b>	<b>Increasing number of Sector Skills Council (SSC) for relevance by 2089.</b>														
30501	Establish SSCs (or other	TVE Act provision for SSCs	Does not exist (current SSCs are formed by	TVE Act in place or CTEVT with		x	x								MoEST/ GoN

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	instruments for the role of SSC) through legislative instruments by defining their roles, responsibilities and incentives	operationalization	CTEVT executive decision)	provision for establishing SSCs											
30502	Form sector skill councils (SSCs) <sup>62</sup> with roles such as on LMIS, collaboration for standards and curriculum development, industry exchange, work-based learning and employment/ financial linkages facilitation	No. of SSCs	3 Sector Skills Committees (Construction, Hospitality and Automobile); they are not Sector Skills Councils established by law. Hence, they are unable to operation as independent institution	At least 20 (based on GDP contribution and employment) including the existing three.		5	10	15	20	20	20	20	20	20	MoEST/ GoN
<b>30600</b>	<b>Continuing publication of TVE sector research reports by 2089.</b>														
30601	Publish TVE sector report annually	No. of annual TVE sector annual report	Annual report used to be published until 2075 but now it has discontinued	1 annual	1	1	1	1	1	1	1	1	1	1	CTEVT
30602	Continue publication of TVE journals	No. of TVE journals published annually	2 (CTEVT and TITI)	2 annual	2	2	2	2	2	2	2	2	2	2	CTEVT

<sup>62</sup> Or with any other name and/or structure as agreed with BIAs. A Federation of Nepalese Chamber of Commerce (FNCCI) is presented in Annex 19.

## 5.2.4 Integration in TVE system

### 5.2.4.1 SWOT Analyses

**Strength.** Government of Nepal has already approved National Vocational Qualification Framework (NVQF) with eight qualification levels aiming at establishing TVE recognition as and equivalency with general education. It also indicates facilitating permeability between the TVE and general education. Through its annual plan and budget of 2079/80, the government has reemphasised its commitment to its implementation. Offering Bachelor's degree level in TVE is one signal of its commitment. Closely linked with NVQS is National Skills Testing Board (NSTB) offering its services for over 30 years. It has been serving people with various levels of skills in all sectors - formal, informal and non-formal - through assessment and certification of competencies. Recently, it has also started Recognition of Prior Learning (RPL) system of assessment and certification to support of competencies gained in the in/non-formal sector. Further, it holds expertise in assessing and certifying elementary and graduates of Level 1 to 4. Currently, it has been working on extending this service for Level 5. It has helped workers to get recognition of their competence and also move into higher skills levels. NSTB has 61 Accredited Skills Test Centres and 7464 skills test assessors trained for the skills assessment purpose. It has also prepared Master Assessors (35) and Model Assessors (38). These resources have been mobilized to ensure quality skills assessment and certification.

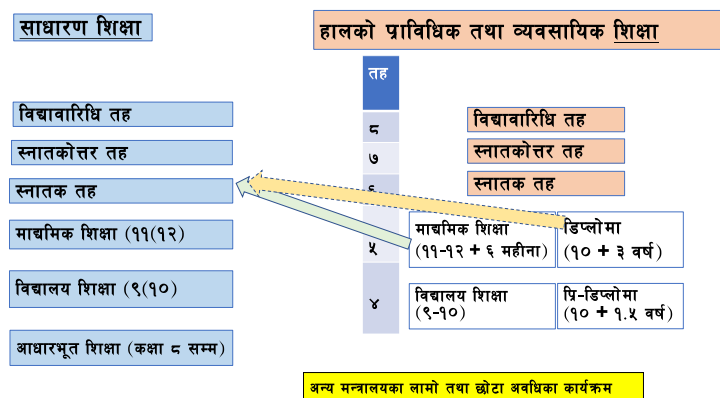
**Weakness.** The current TVE system suffers mainly from two constraints: i) limited employment to the TVE graduates; and ii) lack of further TVE educational pathways after completing Diploma or Grade 12 (Figure 5.1<sup>63</sup>). The Pre-Diploma graduate certificates do not carry any credit value requiring them invest another 3 years' study if they would like to pursue Diploma. This situation could have been changed by CTEVT. Unless, it happens, this condition has to be clearly conveyed to students and parents during their Pre-Diploma level enrolment process to help them make informed decision (Box 5.5).

**Box 5.5:** During the Gandaki Province consultation workshop during 20-21 August 2022, Mr. Omkar Gharti Magar, a student-Diploma in Hotel Management of Pokhara Technical School, Kaski said "if there is no recognition of TSLC/ Pre-Diploma program certificates why CTEVT offers such program?"

Further, lack of effective correlation between and among NVQS, and CTEVT and CEHRD programs, between CTEVT and CEHRD and that even among CTEVT Pre-Diploma, Diploma and RPL/ skills test achievements has obstructed the expected popularity of TVE. Also, in absence of properly structured Preparatory TVE in Grades 6 to 8, students are forced to make decision whether or not to enrol in Technical Stream (Grade 9) and Pre-Diploma/ Diploma after SEE graduation. Further, short term training has remained as a stand-alone qualification limiting graduates' opportunity for further education— horizontal and vertical progression.

Absence of credit accumulation and transfer system (CATS) has adversely affected learners' possibility for joining other disciplines and programs and even other universities to further their education while also engaging themselves in relevant employment. As the students are

Figure 5.1: Comparison of educational pathways between the current system and the proposed system.

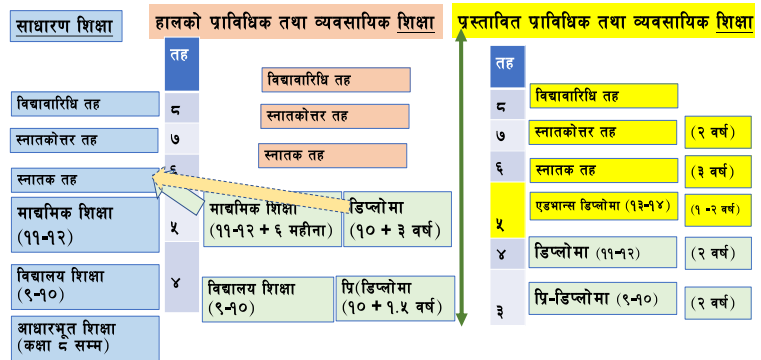


<sup>63</sup> Modified from Pradhan, H. 2019. *Struggle for Development and Operationalization of NVQ in Nepal. Unleashing TVET Potentials for Nepal's Development* (Chapter from Book in progress).

required to spend period to complete a qualification, it makes the current TVE system inflexible and detesting to the learners who are interested in supporting their own study. These gaps have further continued the state of disorganization of TVE sector in terms of its recognition, eventually adversely affecting students, parents and employers.

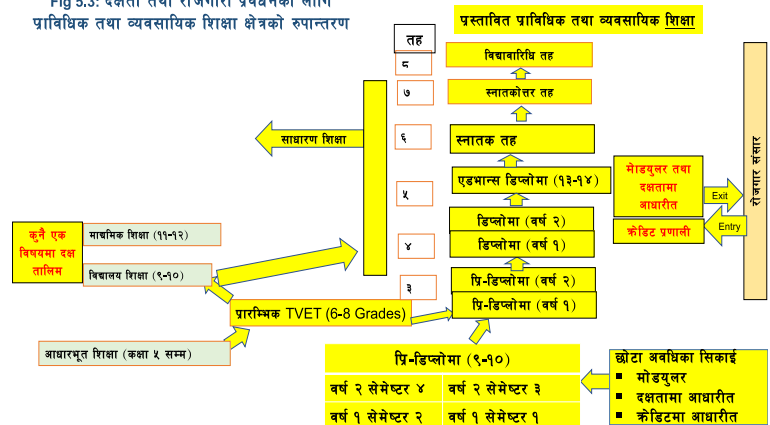
**Opportunity.** A full operationalization of NTQF would establish equivalency between TVE and general education, and therefore, could facilitate vertical and horizontal, and even diagonal progression and affiliation between them (Fig 5.2<sup>64</sup>). It could also establish equivalency between CEHRD and CTEVT qualifications or even remove the disarray between the CEHRD and CTEVT curriculum and certification. Such arrangement could help establish recognition of certificates for both employment and further education. As such, it would address the current recognition problem as well as expand students' accessibility to TVE. Properly designed NTQF

Fig 5.2: दक्षता तथा रोजगारी प्रवर्धनका लागि: प्राविधिक तथा व्यवसायिक शिक्षा क्षेत्रको रूपान्तरण



based courses could provide opportunity for modular, competency and credit-based curricula that could facilitate multi-entry and -exit opportunity. This could meaningfully make TVE an opportunity for students with weak economic context. This approach will also open paths for competencies learned through short-term training and in non/informal sectors (Fig 5.3<sup>65</sup>). Further, this approach could revise important training such as one-year training courses in land management training by Ministry of Land Management Cooperatives and Poverty Alleviation, and link with formal education and offer further educational pathways. This is how 'learn, earn and pay model' of TVE could be made spontaneously operational without putting much burden on government and parents. It also means widening access to, and vertical and horizontal expansion of TVE. The possible benefit of such arrangement is that even a short-term training graduate could further their education while also engaging in employment, self-employment or managing their own enterprise. Above all, its operationalization could connect all initiatives of the TVE system across the provinces and local levels through quality assurance system, particularly knowledge management, standards/ curriculum development, teacher accreditation/licensing, assessment and certification, and establishing equivalency.

Fig 5.3: दक्षता तथा रोजगारी प्रवर्धनका लागि प्राविधिक तथा व्यवसायिक शिक्षा क्षेत्रको रूपान्तरण



To materialize reforms proposed above would also require reform in the current qualifications. For instance, Pre-Diploma and Diploma could be restructured as 2-year programs and Advance Diploma (Level 5) could be added to. CTEVT could even move to higher education level following CTEVT Act, 2045 (Article 6.16, amended in 2064) to prepare higher level

<sup>64</sup> Pradhan, H. 2020. Modified from 'Roadmap on Development and Operationalization of NVQS in Nepal. Bhaktapur: NVQS Project CTEVT/ SDC'.

<sup>65</sup> Pradhan, H. and Pradhan, A. 2021. Modified from 'Conceptualizing Structural Reform for Nepal's TVET Sector. Journal of TVET. Vol. 1. Issue 15'.

technical workforce. Surprisingly CTEVT has not made initiatives on harnessing such massive mandate that could solve many problems existing in the TVE system<sup>66</sup>.

Figure 5.2 and 5.3 is further explained by Figure 5.4<sup>67</sup>, which shows how Pre-Diploma level qualification can be operated through semester system using modular, competency- and credit-based system. This figure also shows the Preparatory TVE in Grades 6 and 8. It also suggests inclusion of elementary TVE even in Grades 1 to 5.

Figure 5.4: Proposed TVE system structure and alignment with general education

Age	Education Levels	General Education	Governance	TVE	NVQ Level	Linking short courses/ prior learned competencies with long term programs
26	Tertiary Education	Doctoral Level	Federal and Provincial Level (Schools also be with Diploma and Pre-Diploma programs)	Doctoral Level	L-8	
25						
24						
23		Master Level		Master Level	L-7	
22						
21		Bachelor Level		Bachelor Level	L-6	
20						
19						
18	Post-Secondary Education			Advance Diploma	L-5	
17	Secondary Education	Grade 11 to 12	Local Level	Diploma	L-4	L-1 & 2 and RPL/ skills testing
16						
15		Grade-9 to 10		Pre-diploma	L-3	
14						
13	Basic Education	Grade-6 to 8		Preparatory TVE		
12						
11						
10		Grade-1 to 5		Elementary/Literacy TVE		
9						
8						
7						
6						
5	ECD (kinder Garten)					
4						

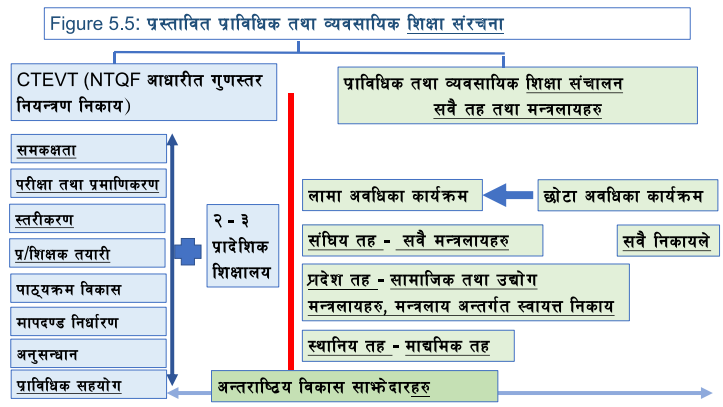
**Notes:**

1. Long term Courses will be modular, competency- and credit-based with multi-entry and -exit options
2. Duration of modular courses could be of 6 months including OJT and will fit into various semesters of Pre-Diploma (L3) and Diploma (L4) qualifications. It may however be subject to consideration of the curriculum development experts.

<sup>66</sup> CTEVT Act 2045 amendment 2075 Article 6.16.

<sup>67</sup> Modified from Pradhan, H. 2019. *Struggle for Development and Operationalization of NVQ in Nepal*. Unleashing TVET Potentials for Nepal's Development (Chapter from Book in progress).

Implementation of the above reform requires operationalization of NTQF. However, the current NVQF approved by government (Annex 15) needs to be revised to address and benefit the opportunities and possibilities explained in Figures 5.2; 5.3 and 5.4. Also, as presented in Annexes 23 and 24, its smooth operationalization requires a mechanism to establish much required coordination among stakeholders.



Implementation of this reform could better be facilitated by restructuring the TVE institutional arrangement (Fig 5.5). The TVE system structure should be divided between bodies ensuring quality and regulatory assurance and that ensuring the implementation (see further details in Governance Chapter). The overview of institutional mechanism for implementation of this proposal is further explained in Chapter 6.2 under implementation mechanism.

**Threats.** Continuation of current TVE system with graduates' recognition issue could further contribute to increase detest among students and parents eventually reducing the enrolment in TVE programs. Even the graduates would continue to encounter recognition issue from Public Service Commission and universities. This ultimately means continued investment in TVE without returns. This status quo will be against the emphasis laid by political parties through their past and latest (2079) election manifesto.

#### 5.2.4.2 Lesson Learned

It has nearly been a decade since the start of NVQS in Nepal. However, due to the discrepancy between its focus and country's needs, its operationalization has remained far from being optimal. For instance, as clearly explained by TVET SAR 2022 report, and also the statements of the participants at planning workshops, there is an acute need for enhancing quality, making qualifications offered relevant and establishing recognition and equivalency. The latter two problems have remained for a long in the past. However, the NVQS operationalization has not so far responded to these problems. This could be also because CTEVT itself has not fully recognized its mandate on preparing higher level TVE (CTEVT Act 2035). Instead, it is limited to offering B. Tech programs which do not address the demands for Level 5 graduates. As per the CTEVT Act 2035, it does not have to get a permission from any agency to offer such higher level programs. In other words, full operationalization of NTQF could potentially solve these problems and work in favor of students.

Operationalization of NTQF, among others, requires collaboration with university leadership, officials, and whole academia which is yet to be mainstream through CTEVT actions. Still large quarters of academia consider TVE as short-term training and altogether non-academic. This understanding grossly undermines the critical contribution CTEVT has made and has potential to do so to the education sector.

#### 5.2.4.3 Reform agenda

The issues/ problems that need to be addressed through reform initiatives related to integration are summarized in Table 5.5.

Table 5.5: Relevant reform agenda

Areas of issues	Reform agendas
Recognition	<p>Operationalizing NTQF to:</p> <ul style="list-style-type: none"> <li>• offer uniform standard and curricula across the country, particularly making a single curriculum for Technical Stream and CTEVT programs.</li> <li>• construct standards as basis for curricula development.</li> <li>• develop competence-based curricula.</li> <li>• make curricula modular and credit-based.</li> <li>• facilitate multi-entry/exit provisions.</li> <li>• facilitate further TVE educational opportunities.</li> <li>• ensure seamless recognition and equivalency of TVE qualifications.</li> </ul>
Learning pathways	<p>Facilitating:</p> <ul style="list-style-type: none"> <li>• horizontal movement allowing completion of a specific qualification by making short-term training as part of long-term qualifications.</li> <li>• horizontal and diagonal movement from and to TVE and general education.</li> </ul>
Perception	<ul style="list-style-type: none"> <li>• Changing the wrong perception that TVE is the second option to academically weak students and is inferior to general education.</li> </ul>

#### 5.2.4.4 Reform Strategy and Objectives

Reform objectives	Strategies
Ensure Integration and recognition of TVE qualifications (operationalization of NTQF)	Accelerating NTQS implementation process by 2085.
	Restructuring TVE qualifications by 2084.
	Ensuring recognition of TVE qualifications by 2089.
	Integrating competencies learned in in/non formal sector by 2089.
	Integrating cross-learning in different sectors and provinces by 2089.
	Accelerating workplace-based training / intern system in public as well as private sectors including households by 2089.



### 5.2.4.5 Reform plan for Integration

COD E	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
40000	Ensure integration and recognition of TVE qualifications (operationalization of NTQF)														
40100	Accelerating NVQS implementation process by 2085.														
40101	Revise CTEVT Act in light of clarifying NTQF implementation provision or promulgate new TVE Act and other relevant TVE legislative instruments for this purpose	Existing CTEVT Act/ CEHRD provision revised or new TVE Act introduced with NTQF implementation provision	Does not exist except for NVQF approved by cabinet but operationalization of NVQS remains. This NVQF needs to be reviewed in view of need for Level 5 as Advance Diploma level qualifications.	CTEVT Act revised and/ or new TVE Act with this provision in place		x									CTEVT, NSTB
40102	Ensure recognition of all TVE Qualification as equivalent to General education qualification	All TVE qualifications are seamlessly recognized as equivalent to general education qualification in that particular level	64% of Schools encountered recognition issue from Public Service Commission (PSC) and 52% reported this problem with University	All TVE qualifications recognized as equivalent to general education qualification in that particular level			x								MoEST/ GoN
40103	Revise the current NVQF to include technical education to term it as 'National TVE Qualification Framework (NTQF)'	Current NVQF renamed as National Technical and Vocational Education Qualification Framework (NTQF)	Currently it is called NVQF indicating only vocational part of TVE	The term NTQF in place (by including technical part of TVE)		x									MoEST/ GoN

COD E	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
40104	Revise the current NVQF Levels from L1 to L8 to clarify level 5 as advance Diploma	Current NVQF revised including L5 as Advance Diploma	Current NVQF has L5 as Diploma (which according to current education system is 12 years and 13 years in case of CTEVT)	NTQF with L5 as Advance Diploma		x									MoEST/GoN
40105-1	Introduce TVE programs for Advance Diploma and Bachelors qualification level	No. of TVE programs offered under Advance Diploma (Level 5) level qualifications	Does not exist but the budget speech 2079/080 add provision for TVE up to Bachelor level	At least 19 in Advance Diploma levels (Engineering, agriculture, health, and hospitality) have such opportunity			6	19							CTEVT
40105-2		No. of programs offered under Bachelors (Level 6) level qualifications	Does not exist but the budget speech 2079/080 add provision for TVE up to Bachelor level	At least 10 in Bachelor levels (Engineering, agriculture, health, and hospitality) have such opportunity					5	10					CTEVT
40106	Establish NTQS Steering Committee (NSC) (Annex 23) including membership from VC's of universities in the convenorship of CTEVT for ensuring recognition of	High level TVE Coordination Committee (HLTCC) in place	Does not exist	HLTCC operational for NTQS implementation facilitation	x										GoN/ MoEST/ CTEVT

COD E	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	TVE qualifications for further study and employment														
40107	Establish NTQS Management Committee (NMC) (Annex 24) including membership from Deans of universities in the convenorship of CTEVT in support of NSC (specified above)	NMC in place	Does not exist	NMC operational in support of NSC	x										CTEVT
40108	Prepare NTQS implementation manuals	A complete set of NTQS implementation manual in place	10 different manuals and guidelines are reported to be in place but they are mostly for NSTB levels than the qualifications envisaged by this plan for TVE reform	16 NTQS implementation manuals in place		12	14	16							CTEVT, NSTB

COD E	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
<b>40200</b>	<b>Restructuring TVE qualifications by 2084.</b>														
40201	Enhance the preparatory TVE at the Grades 6,7, and 8	Structural reform to introduce clear preparatory path from Grade 6 (allowing informed decision making to enroll Technical Stream at Grade 9 or Pre-Diploma or Diploma after Grade 10/ SEE completion)	Does not exist with formal structure (except for 'Occupational Course' at grade 6-8.	Clear preparatory TVE pathway established between Grade 6 and 8 allowing learners to have opportunity for making informed decision at Grades 9 or after SEE.		X									MoEST, CEHRD
40202	Manage bridging inputs system to facilitate movement from TVE to General Education and Vice versa at relevant NTQ Levels	Bridging system in place to facilitate movement from TVE to General Education and Vice versa at relevant NTQ Levels	Does not exist	Bridging system in place to facilitate movement from TVE to General Education and Vice versa at relevant NTQ Levels			X	X	X						MoEST/ CTEVT
<b>40300</b>	<b>Ensuring recognition of TVE qualifications by 2089.</b>														
40301	Convert existing Technical Stream as Secondary qualification (from 12.5 years. to 12	Technical Stream considered as diploma/ School education (NTQ Level-4)	12.5 yrs. Technical Stream is recognized as Secondary education	Technical Stream operational as School education			X								MoEST/ CEHRD

COD E	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
	years.' education)														
40302	Reduce duration of current 3 yrs. Diploma program into 2 yrs. Diploma program	All diploma level qualifications are of 2 years duration	Currently Diploma program are of 3 years.	Diploma level program operational as School education and limited to 2 years			X								MoEST/ CTEVT
40303	Convert existing Pre-diploma into Grade 9-10 qualification level (using modular and credit based)	Pre-diploma level qualification converted into Grades 9-10 qualification level	Pre-diploma qualification is considered as equivalent to Grade 10	Pre-diploma level qualification converted into Grade 9-10 level qualification			X								MoEST/ CTEVT
40304	Ensure credit value of erstwhile pre-diploma	Credit value of erstwhile pre-diploma ensured	Does not exist	Credit value of erstwhile pre-diploma ensured		X									CTEVT
40305 -1	Resolve recognition issue of TVE qualifications from Public Service Commission and Universities	Share of schools with student complaints on PSC recognition of TVE graduates qualifications	64%	0%			0%								GoN/ MoEST
40305 -2		Share of schools with student complaints on Universities' recognition of TVE graduates qualifications	52%	0%			0%								GoN/ MoEST
40306	Align existing Skills level 1 to 4 with NTQF	Disarray in recognition/ equivalency between	N/A	NTQF (NVQF) and NSTB skills levels aligned			X	X	X	X	X	X	X	X	CTEVT, NSTB

COD E	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
		NTQF and NSTB skills level removed													
<b>40400</b>	<b>Integrating competencies learned in in/non formal sector by 2089.</b>														
40401	Increase number of annual skills tests graduates	No. of annual skills test graduates	55000	452928	158599	173755	190556	224797	251078	280912	314807	353350	402050	452928	CTEVT, NSTB
40402	Increase number of Recognition of Prior Learning (RPL) graduates	No. of annual RPL graduates	N/A	45293	15860	17375	19056	22480	25108	28091	31481	35335	40205	45293	CTEVT, NSTB
40403	Align NTQF with relevant international and South Asia Regional Qualification Frameworks (SARQF) to facilitate workforce mobility across the SA borders	NTQF aligned with relevant international and South Asia Regional Qualification Frameworks	No such alignment exists and SARQF is in progress and likewise other international frameworks. Hence, difficulty for workforce mobility.	NTQF aligned with relevant international and South Asia Regional Qualification Frameworks		x	x	x	x	x	x	x	x	x	CTEVT
<b>40500</b>	<b>Integrating cross-learning from different sectors and provinces by 2089.</b>														
40501	Engage sectoral ministries during TVE resources development and knowledge management system and events	No. of ministries engaged in TVE Resources development through CTEVT (NTQAA) technical committees	No. of ministries engaged in TVE Resources development through NTQAA technical committees	All relevant ministries/ sectors engaged in TVE Resources development through NTQAA technical committees	x	x	x	x	x	x	x	x	x	x	CTEVT (NTQAA)/ sectoral ministries and appropriate economic and BIAs

COD E	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency	
					80	81	82	83	84	85	86	87	88	89		
<b>40600</b>	<b>Accelerating workplace-based training / intern system in public as well as private sectors including households by 2089.</b>															
40601	Make legislative provision (in TVE Act or revision of CTEVT Act) to enforce workplace based training / intern system in public sector	TVE/ CTEVT Act with enforcement for workplace based training / intern system in public sector	Does not exist	TVE/ CTEVT Act/ legislative instruments enforcing workplace based training / intern system in public sector in operation	x	x	x	x	x	x	x	x	x	x	x	CTEVT (NTQAA)/ all public sector agencies
40602	Make policy provision to facilitate workplace based training / intern system in private and household levels	TVE policy for workplace based training / intern system in private and household levels	Does not exist	Policy to facilitate workplace-based training / intern system in private and household levels operation	x	x	x	x	x	x	x	x	x	x	x	CTEVT (NTQAA)/ BIAs/ Households

## 5.2.5 Management of TVE System

This chapter prepares reform plan sections by focusing on analyses of human resources, financing, monitoring and evaluation (M&E) and knowledge management.

### 5.2.5.1 SWOT Analyses

**Strength.** With nearly a decade's experience in managing TVE schools/programs, CEHRD has capacity to manage schools of technical stream. Similarly, with over 30 years of experience, CTEVT has proven expertise in wide range of TVE aspects required to make TVE system operational and effective. Its expertise includes labour market research, standard/curriculum development/ revision, testing various TVE implementation models, teacher preparation and quality assurance, including assessment and certification. CTEVT schools, particularly the constituents, have highly qualified (academic and training) instructional staff with capacity to manage technical schools with proven relevance to address the need of the BIAs/ economic sectors. Similarly, CTEVT has also proven expertise in conducting TVE research, managing MIS (both TVE MIS and LMIS) and organizing knowledge exchange events such as subject specific workshops/ seminars and making various publications.

**Weakness.** Both CEHRD and CTEVT systems have insufficient human resource (HR) capacity to prepare workforce capable to address the current competency needed in the both domestic and world employment markets. As already explained, the instructors training is mainly limited to instructional skills development or professional development and that too mostly, if not exclusively, from schools/ institutes funded by public funds. Proper resourcing and mobilization of TITI could capacitate schools' staff – headteachers/ principals, instructors/ administrative staff and enable large portion of the reform from the school level itself. Relevance of simple management orientation training focusing on OJT could help headteachers who, during the TRSP process, claimed that OJT is best done within school compound itself. For many, conducting TVE graduates' tracers' studies need huge resources. These beliefs might not always be true. These simple examples pertinently explain how precarious is understanding on TVE management including at school level. Also, the notable issue is that the immense TITI potential is largely limited to Kathmandu, and therefore, has been unable to unleash its capacity to contribute to province and Local level TVE reform. The student support system responsible for counselling and providing support – for instance, arranging hostel facility, ensuring access to persons with disability, arranging gender and disability-friendly restrooms, facilitating employment and financial linkages - is limited mainly to sharing some information to students capable to voice their problems.

Monitoring is largely ritual. For TVE reform and NTQS operationalization, implementation of formative assessment is unconditional. However, current understanding of formative assessment is limited to regular theory-focused internal test which does not yield results expected from formative assessment.

Knowledge exchange for innovation, and cross-fertilization among stakeholders within and across provinces is important. However, knowledge exchange events are infrequent and often conducted as ritual. Even TVE journal publications are not regular. TVE research is poorly funded and often with inadequate focus on the need. This is one of the reasons for gap in information about the demand in the employment market – number of employee, and specific competency and levels. This is why schools have been offering same program / course under Pre-Diploma and Diploma qualifications for ever. Surprisingly this problem has now replicated in Technical stream programs as well. Further, TVE could offer green technology/ job relevant programs that could not only contribute to addressing the climate crises relevant issues but the graduates could also have possibility to sell their competency in the world employment market. Achieving it however requires research. Despite this massive potential for research innovation, the current research, mainly due to funding limitations, is confined only to a few



rudimentary research activities. Apart from increasing research funds, it also requires developing human resources both in CEHRD and CTEVT.

The management information system (MIS) is expected to include TVE MIS (TMIS), Labour Market Information System (LMIS) and Financial Management Information System (FMIS). However, except for some progress with TMIS, its management in rest of the areas is weak. For instance, schools hardly keep updated information on what is the demand in market and what their graduates are doing. The TVE system, particularly CEHRD and CTEVT, suffers from updated TMIS. Despite efforts for many years, LMIS's function is weak. Even the FMIS is not properly functional. Some kind of communication medium such as notice board exists in schools but standard communication strategy that focuses on effective composition of message, chooses media, determines timing and duration, and identifies target audience is yet to exist.

TVE is not only complex, it is also expensive. However, the budget trend shows a gloomy picture of TVE financing in that the sector shares merely 1% of budget allocated to education until 2059 and remained at 2% until 2069. In 2078, It TVE witnessed a slight improvement in budget allocation and reached 4%<sup>68</sup>. On the other hand, the private TVE schools do not get any financial support from government. The current meagre shares budget and its fluctuations have two implications: i) TVE sector is not getting share essential to meet the government's vision of increasing the TVE enrolment to 70%; and ii) TVE schools are inadequately funded. Allocation of NRs 4 million each year for a school and only NRs. 15,000 per student as OJT fee under CEHRD clearly explains the reason behind the inferior quality of technical stream schools. Likewise, the TECS schools are provided only NRs. 1.5 million annually which also suggests the reasons for quality issues with this model. No financial or non-financial mechanisms are in place to motivate schools/ institutes for achieving increasing enrolment.

**Opportunity.** The expertise the TVE system, particularly the CTEVT has, could be used for building the existing capacity on all fronts of TVE. Capacity building activities focused on preparing the competent head teachers/principals and instructors could help solve the large number issues at the school itself. In other words, this support can help begin reform from the school level. The TITI, through collaboration with provincial and Local level, could conveniently help schools harness their own capacity. Proper support for implementation of formative assessment can help instructors ensure learning outcomes among students. Similarly, the learning exchange meetings even at school level could help instructors and students from each other.

On the financing front, in the federal context, the provincial and local levels have also resources for TVE. This budget could be mobilized for enhancing TVE quality rather than wasting it into irrelevant training. Further, close collaboration between schools and business and industry to prepare the industry-ready graduates could be one way for reducing costs of TVE.

**Threats.** TVE is by and large considered responsible only for preparing TVE graduates. This approach opposes one of the fundamental principles of TVE i.e., TVE should responsive to demands. Although equity is another important principle, demand side analyses should be the start point. In that sense, TVE is nothing but an 'an economic system', where these market forces needs to work freely. However, only limited stakeholders have this understanding. Unless such understanding exists among responsible stakeholders, TVE will be a continuation of 'business-as-usual' practice. Finally, unless TVE system is guided by research, it will continue to repeat its past futile actions. This implies minimal relevance of TVE actions for the national development vision. Absence of incentive system motivating schools/ institutes

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<sup>68</sup> These data do not include the provinces' TVE budget. Likewise, local levels also have allocated budgets for training but these too are not included in these data.

for increasing enrolment rates, cycle completion and survival rates, and employment rates could only continue to worsen the current low enrolment rates.

### 5.2.5.2 Lessons Learned

Achievements so far made by CTEVT are due to its expertise with the existing human resources (HR). Among the other factors, contribution of investments made by SDC/ADB during the first ADB-funded project that started in 0994 is noteworthy. Although, TITI has been making efforts for developing HR capacity, most of this capacity developed during the said project phase is now either retired or become obsolete. The current HR capacity in terms of both quantity and their ability to understand and apply new knowledge gained by keeping abreast of the new developments is limited. This situation justifies need for making intensive effort for building staff capacity.

The usual low-funded research has not been able to change the big organizations like CTEVT, which is entitled to face complex and challenging responsibilities. Even after decades of its existence, it is not able to match its qualifications with the occupations in demand. Unless CTEVT can demonstrate capacity in this respect, the current 'practice' of preparing less relevant workforce will continue. In other words, it will continue to "practice" what it has been "practicing" for long in the past. CEHRD, on the other hand, even has not practiced doing such research activities.

### 5.2.5.3 Reform agendas

The issues/problems that need to be addressed through reform initiatives related to quality are summarized in Table 5.6.

Table 5. 6: Relevant reform agenda

Areas of issues	Reform agendas
Management	<ul style="list-style-type: none"> <li>▪ Enhancing school management capacity.</li> <li>▪ Enhancing understanding on TVE principles among stakeholders particularly, of school management and instructors</li> <li>▪ Cultivating formative assessment skills to ensure measurement of learning outcomes.</li> <li>▪ Building technical capacity to conduct research for innovation and carry out national-level research on TVE issues explained in this chapter.</li> </ul>
Knowledge management	<ul style="list-style-type: none"> <li>▪ Building TVE research management capacity.</li> <li>▪ Institutionalizing tracer study, impact study and labour market study practices</li> <li>▪ Identifying new occupations at various levels by aligning them with both NTQF levels and NSCO.</li> <li>▪ Making the planning and policies evidence-based.</li> <li>▪ Implanting better understanding on TVE among stakeholders.</li> </ul>
Financing	<ul style="list-style-type: none"> <li>▪ Increasing public funding for TVE sector to prepare quality graduates.</li> <li>▪ Facilitating collaboration with BIAs to avail of quality practical training/OJT opportunities to ensure preparation of the quality and industry-ready graduates.</li> <li>▪ Increasing funding for research for innovations to address industrial revaluation four (IR4), green technology/energy, and circular economy for transformational value-chain, particularly focusing on agriculture and other natural resources-based TVE programs.</li> </ul>

#### 5.2.5.4 Reform Objectives and strategies

Reform objectives	Strategies
Develop TVE Management System (HR development, school management Financing)	Enhancing institutional including HR capacity covering federal, provincial and local level TVE authorities and supporting cross learning and earning by 2089. Supporting learners through institutionalised Learners' Support System (LSS) (school management) by 2089. Strengthening HR capacity for school management by 2089. Ensuring required finance for quality delivery by 2089. Strengthening school capacity to establish School Fund by 2089. Facilitating BIAs for availing financial incentives to students during OJT by 2089.
Establish knowledge management system	Increasing knowledge exchange events (knowledge management) by 2089. Enhancing TVE research management capacity by 2089. Operationalizing Communication strategy by 2089. Enhancing school level facilities by 2084.

### 5.2.5.5 Reform plan for Management

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency	
					80	81	82	83	84	85	86	87	88	89		
<b>50000</b>	<b>Develop TVE Management System (HR development, school management, financing, and Knowledge Management)</b>															
<b>50100</b>	<b>Enhancing institutional including HR capacity covering federal, provincial and local level TVE authorities and supporting cross learning and earning by 2089.</b>															
50101	Prepare HRM Plan for federal level TVE system (CTEVT, CEHRD, CDC, NEB and others)	HRM plan for federal level TVE system (CEHRD and CTEVT and allied organizations in place	Plan does not exist (O&M survey of CTEVT existed)	HRM plan for federal level TVE system (CEHRD and CTEVT and allied organizations) in place		x										CEHRD, CTEVT, CDC, NEB and others)
50102	Operationalize institutional capacity development plan for federal, provincial and local level TVET institutions	Institutional capacity development plan operational for federal, provincial and local level TVET institutions	Does not exist	Institutional capacity development plan for federal, provincial and local level TVET institutions operationalized		x	x	x	x	x	x	x	x	x	x	MoEST, MoSDs/ MOEs and local levels
50103	Develop HR capacities of TVE personnel at federal levels (bureaucrats and academics, BIAs) following the HRM plan	HRM Plan based capacity development activities carried out	TVE personnel HR capacity development available. (4000+ from TITI and 200+ from aboard through CTEVT)	HR capacity development following HRM Plan		x	x	x	x	x	x	x	x	x	x	MoEST
50104	Provide incentive/ allowance head-teacher, coordinator, account personnel of TVE institute	Management staff of CEHRD schools incentive increased	Baseline: Headteacher =NPR. 500; Others does not exist	Head-teacher = NPR.2000; Coordinator = NPR.1500; Accounts Personnel = NPR.1500		x	x	x	x	x	x	x	x	x	x	CEHRD
<b>50200</b>	<b>Supporting learners through institutionalized Learners' Support System (LSS) (school management ) by 2089.</b>															
50201	Establish Learner's support system (career guidance and counselling and employment facilitation) in each school in place	Share of schools with LSS	50% CTEVT constituent schools have placement and counselling unit.	100%		60 %	80%	100 %	100 %	100%	100 %	100 %	100 %	100 %	100 %	Technical Schools

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
50202	Involve School executive committee (SEC) in decision making process.	Share of schools with SEC involvement in decision making process	SEC exists but ceremonial	100%		60%	80%	100%	100%	100%	100%	100%	100%	100%	Technical Schools
50203	Establish student support unit (SSU)	Share of schools with SSU established	Does not exist	100%		60%	80%	100%	100%	100%	100%	100%	100%	100%	Technical Schools
<b>50300</b>	<b>Strengthening HR capacity for school management by 2089.</b>														
50301	Prepare HRM plan for school/ institute level	Share of school with institute level HRM plan	Does not exist	All institute/school (100%) have HRM plan		20%	20%	20%	20%	20%	100%	100%	100%	100%	Technical Schools
50302-1	Provide School Management training to Head Teacher/Principal	Share of schools with Head teachers/ Principals with school management training in various aspects of TVE (Communication, Labor Market Study, OJT, Placement/ employment facilitation and Tracer Study)	CTEVT constituent schools' principal are trained.	All types of schools (100%) - Technical Stream, Constituents, Private, Partnership ad TECS		20%	40%	60%	80%	100%	100%	100%	100%	100%	CTEVT, TITI and Provincial ITC
50302-2		Share of schools with Program Coordinators with program management training	Baseline not available	All types of schools (100%) - Technical Stream, Constituents, Private, Partnership ad TECS		20%	40%	60%	80%	100%	100%	100%	100%	100%	CTEVT, TITI and Provincial ITC
50303-1	Maintain IT based tracer study system at school level annually	Share of schools with annual tracer studies	Web based tracer study system available and few schools have Tracer Study report.	100%		60%	80%	80%	100%	100%	100%	100%	100%	100%	technical schools

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
50303-2		Findings of tracer studies put in TMIS	Some practice exist but yet to be made systematic	100% (compiled from available tracer studies)		60%	80%	80%	100%	100%	100%	100%	100%	100%	technical Schools, provincial and local
<b>50400</b>	<b>Ensuring required finance for quality delivery by 2089.</b>														
50401	Provide sufficient budget to ensure quality instructional learning environment (ILE) at school level	Share of schools with necessary annual budget (estimated NRs. 186,000 per year for school with 3 programs) for assuring quality available	Technical Stream has 40 lakhs per annum for each school	Estimated NRs. 186,000 per year for school with 3 programs) for assuring quality available		X									MOF, MoEST, CTEVT CEHRD, Provincial and local government
50402	Introduce financial dis/incentive system for public schools attaining 100% enrolment and 90% graduation rate and 80% employment rate	Financial dis/incentive system for public schools attaining 100% enrolment and 90% graduation rate and 80% employment rate in place	Does not exist	Financial dis/incentive system for public schools attaining 100% enrolment and 90% graduation rate and 80% employment rate in place in operation	x	x	x	x	x	x	x	x	x	x	MoEST/ GoN/ Province and local Levels
<b>50500</b>	<b>Strengthening school capacity to establish School Fund by 2089.</b>														
50501	Establish School Fund for enhancing school income with also aiming to benefit students and instructors	Share of schools with approved school fund	CEHRD: Does not exist; CTEVT: Few schools practices	60%	20%	30%	40%	50%	60%	60%	60%	60%	60%	60%	Technical schools
50502	Establish Production/ Consultancy Unit structure in schools with market linkage (through outlets)	Production/ Consultancy Unit functional for market linkage	Only limited practice exists (52% schools have School Fund which can be linked with such unit)	100%			20%	20%	P5%	000%	000%	000%	000%	000%	Technical schools

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency	
					80	81	82	83	84	85	86	87	88	89		
<b>50600</b>	<b>Facilitating BIAs for availing financial incentives to students during OJT by 2089.</b>															
50601	Introduce partnership scheme with BIAs for financial incentives to the OJT learners	Share of schools with MoUs with BIAs availing financial incentives to OJT learners	NRs. 15,000 (CEHRD) and NRs. 3000 (CTEVT) availed for each OJT learners; No compulsions but some BIAs provide incentive to CTEVT programs	Partnership with BIAs in place to avail financial incentive during OJT (to replace government funding)							x	x	x	x	x	MOEST, MOI, CTEVT, BIAs
<b>50700</b>	<b>Enhancing school level facilities by 2084.</b>															
50701-1	Ensure toilets for both gender	Share of schools with toilet for females	78.10%	100%			100%									CTEVT, CHERD, PGs & LLs
50701-2		Share of schools with toilet for males	78%	100%			100%									CTEVT, CHERD, PGs & LLs
50701-3		Share of schools with toilet for People with Disability (PWD)	36.40%	100%			100%									CTEVT, CHERD, PGs & LLs
50702	Manage first aid facilities	Share of Schools with first aid	67.80%	100%			100%									CTEVT, CHERD, PGs & LLs
50703	Manage canteen facilities	Share of schools with canteen facilities	55.80%	100%			100%									CTEVT, CHERD, PGs & LLs
50704	Put student grievance handling unit	Share of schools student grievance handling unit	64.50%	100%			100%									CTEVT, CHERD, PGs & LLs
50705	Establish GESI Unit	Share of school with GESI Unit	Does not exist	100%			100%									CTEVT, CHERD, PGs & LLs

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
50706	Ensure school with head teacher with school management training	Share of schools with head teacher with school management training	50.70%	100%			100%								CTEVT, CHERD, PGs & LLs
50707	Allocate separate coordinator for each program	Share of schools with separate coordinator for each program	57.40%	100%			100%								CTEVT, CHERD, PGs & LLs
50708	Give preference to females while making new hire to encourage gender equity	Policy giving preference to female while making new hire to encourage gender equity	Does not exist	100%			100%								CTEVT, CHERD, PGs & LLs
50709	Give preference to PWDs while making new hire to encourage social inclusion	Policy giving preference to PWDs while making new hire to encourage social inclusion	Does not exist	100%			100%								CTEVT, CHERD, PGs & LLs
50710	Ensure active School Management Committee (SMC) in each school	Share of schools with active SMC	73%	100%			100%								CTEVT, CHERD, PGs & LLs
50711	Manage electricity in schools	Share of schools with electricity supply	76.70%	100%			100%								CTEVT, CHERD, PGs & LLs
50712	Organize Job fairs at local level annually	Share of local levels organizing annual job fairs	Does not exist (share of schools: 10.1%)	75%			15%	30%	75%						LLs/ SSCs/ BIAs and economic sectors
50713	Manage library in schools	Share of schools with library facilities	Does not exist	100%			20%	40%	100%						CTEVT, CHERD, PGs & LLs



CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
<b>50800</b>	<b>Enhancing TVE research capacity by 2089.</b>														
50801-1	Improve Nepal Standard Classification of Occupations (NSCO) aligning with NTQF level descriptors and occupations in the existing/upcoming industries/economic sectors	NSCO reflecting all occupations in the existing/upcoming industries/economic sectors available as per CBS's	NSCO exists but not aligned with industry occupations and their level	NTQF and NSCO aligned with industry occupations and their levels			x	x	x	x	x	x	x	x	MOEST, CTEVT/ NSTB
50801-2		NTQF aligned NSCO based comprehensive study identifying current industry/economic sector structure, placement and projections	Does not exist	Report with NTQF aligned NSCO based current structure, placement and projections available			x	x	x	x	x	x	x	x	MOEST, CTEVT/ NSTB
50802-1	Establish system, in collaboration with BIAs, more specifically, with SSCs for forecasting workforce demand as per NTQF aligned NSCO	Workforce forecasting agency under CTEVT established at least on annual basis	Does not exist	Workforce forecasting agency under CTEVT operational			x	x	x	x	x	x	x	x	MOEST, CTEVT/ NSTB
50802-2		Workforce demand published annually	First baseline study conducted	Data on Workforce demand available annually		x	x	x	x	x	x	x	x	x	MoEST, CTEVT, CHERD
50803	Partner with Central Bureau of Statistics (CBS) to incorporate NTQF based occupational-level data in National Labor Force Survey (NLFS)	CBS incorporates NTQF based occupational levels relevant indicators in the NLFS	Does not exist	CBS incorporates NTQF based occupational levels relevant indicators in the next NLFS					x						MoEST, NPC, CBS

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
50804	Institutionalize coordination among different levels of Governments on planning of specific research and during research design and sharing the findings	Coordination system with representation from Federal, provincial and local level TVE bodies available	This practice does not exist	Institutionalize coordination among different levels of Governments			x	x	x	x	x	x	x	x	MoEST, CTEVT, CHERD
50805-1	Strengthen current MIS to develop an integrated MIS (TVE MIS and LMIS) connecting all TVE providers and BIAs/ economic sectors to ensure interaction between demand side and supply side	Current fragmented MIS strengthened into an integrated MIS (TVE MIS and LMIS) connecting all TVE providers and BIAs/ economic sectors to ensure interaction between demand side and supply side	All relevant agencies (CTEVT, CEHRD, sectoral ministries, financial institutions, donors, business and industry/ economic sectors) have their own MIS	Integrated MIS (TVE MIS and LMIS) connecting demand side and supply sides is in operation	x	x	x	x	x	x	x	x	x	CTEVT, CEHRD, sectoral ministries, financial institutions, donors, business and industry/ economic sectors	
50805-2		Federal/Provincial/Local level/school level integrated TVE MIS, FMIS and EmMIS established and operationalize	CTEVT and CEHRD have TVE MIS	Federal/Provincial/Local level/school level integrated TVE MIS, FMIS and EmMIS established and operationalize	x	x	x	x	x	x	x	x	x	MoEST, CEHRD, CDC, NEB and others)	
50806	Maintain repository of all relevant TVET research documents in e-copy and/or hardcopy	Repository of all relevant TVET research reports prepared by all publicly funded research including international development partners in e-copy and/or hardcopy in place	Exists in various forms but in scattered manner	Repository of all relevant TVET research documents in e-copy and/or hardcopy available for all			x	x	x	x	x	x	x	CTEVT	

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
50806	Update/maintain the findings of all levels of studies in TVE knowledge management system (TMIS/EmMIS (LMIS)) for dissemination purpose	Knowledge management system (TMIS/EmMIS) updated by all stakeholders on real-time basis for wider use	CTEVT and CEHRD have some data related to TVE and employment but not updated/ coordinated at different level	TMIS/EmMIS updated/maintained through Knowledge management system in operation			x	x	x	x	x	x	x	x	MoEST, CTEVT, CHERD
50807	Develop NSCO based needs assessment survey as pre-requisite for offering qualifications in other sectors	No. of NSCO based needs assessment survey as pre-requisite for offering qualifications in other sectors as aviation, IT, banking, fashion design etc.	Does not exist	5 Nos. of NSCO based needs assessment survey prepared			2	5							CTEVT, NSTB
50808	Conduct impact studies at national level	No. of impact studies at national level annually	Impact study conducted	Impact study operational annually			1			1			1		MoEST, CTEVT, CHERD
50809	Conduct final evaluation (including financial analyses/ expenditure verification) of all international development partners funded projects implemented by public entities by independent experts	Share of donor funded projects evaluated by government	Practice does not exist	100%			30%	40%	50%	100%	100%	100%	100%	100%	MoEST/ CTEVT/ sectoral ministries
50810	Conduct studies relevant to green skills/ technology/ energy/ jobs with purpose to	No. of studies conducted focusing on green jobs relevant TVE	Does not exist	Studies identifying green jobs related TVE programs			x	x	x	x	x	x	x	x	MoEST, CTEVT, CHERD

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
	enhance their scope in instructional learning environment.	programs (long and short)													
50811	Continue publication of comprehensive TVE progress report	Comprehensive TVE progress report annual publication	Publish until 2075	Comprehensive TVE progress report published annually		1	1	1	1	1	1	1	1	1	MOEST,
<b>50900</b>	<b>Increasing knowledge exchange events by 2089.</b>														
50901	Conduct Federal level exchange meetings/seminars on TVE regularly	No. of knowledge exchange meetings at federal level each year	One on each year (Tentatively)	At least one annually at the Federal Level each year	1	1	1	1	1	1	1	1	1	1	MoEST, CTEVT, CHERD
50902-1	Conduct province and local level exchange meetings/seminars on TVE regularly	No. of Provinces with at least one knowledge exchange meetings at provincial levels each year	Does not exist in a structured way	At least one annually at each seven (7) province Level	7	7	7	7	7	7	7	7	7	7	MoEST, CTEVT, CHERD
50902-2		No. of Local levels with at least one knowledge exchange meetings at local levels	Does not exist in a structured way	All Local levels covered in every three (3) years.		213	213	213	213	213	213	213	213	213	MoEST, CTEVT, CHERD
50902-3		Nos. of schools with knowledge exchange meetings at school levels	Does not exist in a structured way	1416 (100% of the institutes)	1620	1630	1640	934	949	969	1057	1157	1283	1416	CTEVT, Technical Schools
50903	Organize competency/ skills competition at national, province, and local levels and school levels annually	No. of competency/ skills competition at national, province, and local levels and school levels	Does not exist	At least 1 at each level and school level		1	1	1	1	1	1	1	1	1	MoEST, CTEVT, CHERD/ Province/ LLs and schools

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
<b>51000</b>	<b>Operationalizing Communication strategy by 2089.</b>														
51001	Operationalize Communication strategy at federal, provincial and institute level	Communication strategy including the TVE awareness at federal, provincial, local and institute levels	Does not exist in a structured format	Communication strategy at federal, provincial, local and institute levels available and operational		x	x	x	x	x	x	x	x	x	CTEVT, CHERD

## 5.2.6 Governance and Coordination in TVE System

### 5.2.6.1 SWOT Analyses

**Strength.** CTEVT, with both regulatory and implementation authority, has also been mandated to manage higher level technical education. As such, the CTEVT Act is a powerful legislative provision.

**Weakness.** Although CTEVT is functional under a powerful Act, it needs a revisit in the federal governance context to mainly ensure its focus on quality assurance and relieve it from the overall implementation responsibility. However, in the federal context, a new TVET Act is necessary also to clarify the provincial and Local level TVE responsibilities. Absence of this provision has barred development of provincial and Local level TVE Acts, which in turn, has adverse impact on policy development process at all these three governance levels. Absence of such a legislative instrument, a fragmentation in TVE, is growing more than ever before. Even if Bagmati and Gandaki provinces have developed their own Acts, they resemble the current CTEVT Act, which is criticized for holding both the regulatory and implementation responsibilities. The current TVE Policy is nestled within National Education Policy 2076. Hence, it is known to only limited stakeholders, and is hardly referred to. As explained above, some of its provisions even conflict with TVE principles.

CTEVT holds both implementation and regulatory responsibilities. As such, CTEVT is overburdened with implementation responsibility of over 1000 Technical Schools. Current schools under Technical Stream offering qualifications (up to Grade 12) operate under local-level governance. However, the one-year OJT provision promulgated in the Education Act (Eighth amendment) makes it a 5-year program (Grades 9 and 10; 2 years after Grade 10/SEE and 1-year OJT). Although efforts are made to limited in six months' time, duration of the current Technical Stream exceeds duration for school education. Hence, the Technical Stream is not school education. Also, in view of the current NEB mandate on examination/certification up to Grade 12 conflicts, examination and certification of technical stream students by NEB is arguable.

At province level, no autonomous TVE institution exists under Ministry of Social Development (MoSD)<sup>69</sup> to manage TVE schools. On the other hand, MoSDs have limited staff to carry out this responsibility, let alone possessing necessary expertise to deal with complex issues associated with TVE. Therefore, this important limitation with MoSD/ MoE at province level needs to be addressed through immediate, mid-term and long-term capacity development plan. This situation largely holds true at local level as well, and therefore, calls for a continued productive partnership for technical backstopping between these governance bodies and CTEVT. However, such collaboration has not started yet.

**Opportunity.** Introduction of TVE Act based on the TVE principles to address the weaknesses, mentioned above, is the biggest opportunity. This gap can be addressed by also amending CTEVT Act focusing on issues such as:

- i. operationalization of NTQF,
- ii. facilitating productive collaboration between TVE system and schools and particularly operationalizing SSCs, and
- iii. operationalization of TVE Acts and TVE agencies at province and local levels.

Federalization of TVE schools could help facilitate linkages between TVE and BIAs/economic sectors, and help enhance quality and relevance of the courses offered. Further, both province and local levels have resources for education sectors which could be mobilized to develop TVE at both province and local levels. As such, planning of more programs/ courses relevant

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<sup>69</sup> Name of provincial ministry taking responsibility of TVE varies by provinces. Therefore, MoSD is used in this report to represent these ministries as appropriate.

to business and industry also means possibility of mobilizing financial resources to these levels.

**Threats.** Unless a federal TVE Act in the federal context is promulgated or the current CTEVT Act is amended accordingly, the sector fragmentation will continue to grow and chaotic situation will continue to persist. This fragmentation is even serious now due to : i) engagement of at least, two ministries at the province level; and ii) TVE implementation mandates to Local levels. In absence of proper technical backstopping from expert institutes like CTEVT, the gaps explained in various Chapters of this plan will continue to exist.

### 5.2.6.2 Lessons Learned

Federal TVE Act based on TVE principles proves to be a must for TVE reform at all levels. Unless cutting-age changes, such as credit- and competency-based and modular curricula, also for long-term courses to facilitate "multi-entry/exit" opportunities to benefit from seamless career progression and employment, is enforced through new TVE Act, bringing changes in the traditional approaches and mindset is not possible. Only such legislative promulgation and its implementation would help prepare right federal TVE policy and provincial TVE Acts and policies.

### 5.2.6.3 Reform agendas

The issues/problems that need to be addressed through reform initiatives related to quality are summarized in Table 5.7.

Table 5. 7: Relevant reform agenda

Areas of issues	Reform agendas
Governance	<ul style="list-style-type: none"> <li>• Getting TVE Acts and policies promulgated at all three governance levels or relevant amendment is made in the current CTEVT Act.</li> <li>• Reducing fragmentation of TVE among three levels and across stakeholders within each government level.</li> <li>• Managing TVE institutes/ schools at federal, provincial or local levels</li> </ul>
Coordination	Ensuring effective coordination mechanism in place to ensure coordination among various sector stakeholders

### 5.2.6.4 Reform Objectives and Strategies

Reform objectives	Strategies
Improve governance and Coordination, and Financing	Restructuring of current TVE system through governance instruments at federal and provincial levels by 2083
	Segregating regulatory and implementation responsibilities through new federal TVE Act by 2089
	Reforming TVE policies in the context of new federal and provincial TVE Acts by 2089
	Enhancing coordination among and within federal, provincial and local levels by 2089
	Enhancing TVE sector financing by 2089
	Putting technical backstopping system in place in collaboration with federal, provincial and local levels by 2089

### 5.2.6.5 Reform plan for TVE Governance, Coordination and Financing

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
<b>60000</b>	<b>Improve governance and Coordination, and Financing</b>														
<b>60100</b>	<b>Restructuring of current TVE system through Governance instruments at federal and provincial levels by 2081</b>														
60101-1	Formulate TVE principles guided TVE Act and Rule (in context of federalization)	TVE principles guided Federal TVE Act promulgated or CTEVT Act amended embracing the federal context	CTEVT Act yet to be aligned with Constitutional spirit or TVE Act in the federal context does not exist	TVE principles guided Federal TVE Act in place	x	x									MoEST/GoN
60101-2		TVE principles guided Provincial TVE Acts promulgated	Gandaki and Bagmati Provinces have TVE Act (but they need to be aligned with Federal TVE Act after its promulgation)	TVE principles guided Provincial TVE Acts in place	x	x									MoSD/PGs
60101-3		Make clear provisions about TVE in local level Education Acts	Does not exist related to new TVE Act	Rules operational	x	x									LL
60102-1	Develop CTEVT as National Quality and Regulatory Assurance Authority (NTQAA) with main responsibility on regulatory/ quality assurance (research, ILE resources development including chief master instructors' preparation, instructors' accreditation, assessments (academic and physical) and certification functions, and equivalency	CTEVT developed as apex federal quality assurance body with responsibilities on model/ COEs at province level	NVQS introduced but such a competent authority does not exist	Through new federal TVE Act, CTEVT developed as NTQAA with focus on regulatory/quality control functions	x	x									MoEST/GoN



CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency		
					80	81	82	83	84	85	86	87	88		89	
60102-2		All TVE final assessments/ examinations are brought under CTEVT (NTQAA)	CTEVT OCEs examines and certifies Pre/Diploma qualifications	All TVE final assessments/ examinations are brought under CTEVT (NTQAA)	x	x										MoEST/GoN
60102-3			National Examination Board (NEB) examines and certifies Technical stream beside its 3 years duration after Grade 10. However, NEB has mandate to examine +2 learners (Grade 12). Therefore, by virtue of 13-year (even 12.5 years) education under Technical Stream the current examination role of NEB is contradictory	All examinations and certifications of qualifications falling under purview of post-secondary education. Hence, this responsibility is established under CTEVT (NTQAA).	x	x										MoEST/GoN
60102-4		All TVE schools except model/CoEs schools are brought under Provincial TVEAs and local levels	Currently under CTEVT and CEHRD as applicable	All TVE schools except model/CoEs schools are brought under Provincial TVEAs and local levels	x	x										MoEST, CTEVT, PGs, LLs

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)									Responsible agency	
					80	81	82	83	84	85	86	87	88		89
60103	Establish autonomous Provincial TVE Authorities (TVEAs) at province level under Provincial MoSDs	No. of P-TVEAs with post-secondary TVE implementation responsibility	No autonomous TVEAs under MoSDs are established as yet	P-TVEA one in each province established as autonomous body at province level	7										MoEST, CTEVT, PGs, LLs
60104	Revise/ update existing relevant rules, regulations and bylaws in line with new Acts and/ or new context	All relevant rules, regulations and bylaws revised/ updated to make them contextual	Some practice exists	relevant rules, regulations and bylaws revised/ updated		x	x								MoEST, CTEVT, PGs, LLs
<b>60200</b>	<b>Segregating regulatory and implementation responsibilities through new federal TVE Act by 2089</b>														
60201	Assign all regulatory responsibility/ quality and regulatory assurance responsibility to CTEVT	CTEVT established as Apex TVE regulatory body	CTEVT has both regulatory and implementation roles	CTEVT is focused on regulatory and quality control responsibilities	x	x									GoN/MoEST
60202-1	Assign responsibility of COEs/Model Schools to CTEVT	No. of CoEs/ Model schools under CTEVT	3 CoEs are under development process	Only 2-3 CoEs/Model Schools in each province are under CTEVT	x	x									CTEVT
60202-2		No. of schools implemented under P-TVEA and local levels (LLs)	Currently, all CTEVT schools are managed by CTEVT Provincial Offices	All the CTEVT Schools other than CoEs/ model schools are operational under P-TVEA and LLs	1620	1630	1640	934	949	969	1057	1157	1283	1416	CTEVT
60202-3			Currently, all CEHRD schools are managed by LLs	All the CEHRD Schools are operational under LLs				x	x	x	x	x	x	x	CEHRD
<b>60300</b>	<b>Reforming TVE policies in the context of new federal, provincial and local level TVE Acts</b>														
60301	Introduce stand-alone and TVE principles guided TVE Policy	Stand-alone federal TVE Policy introduced	Current TVE Policy 2076 is part of National Education Policy.	Stand-alone TVE principles guided TVE Policy is in operation											CTEVT

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
60302	Facilitate preparation of stand-alone and TVE principles guided Provincial and Local TVE Policy	Stand-alone provincial and Local level TVE Policy introduced	Provincial TVE Policy does not exist except in Bagmati and Gandaki Province. Even the existing policies need review to ensure they follow TVE principles and aligned with federal governance structure	Stand-alone and TVE principles guided TVE Policy in operation at province and Local level	x	x	x	x	x	x	x	x	x	x	CTEVT
<b>60400</b>	<b>Enhancing coordination among and within federal, provincial and local levels</b>														
60401-1	Ensure coordination mechanism in the spirit of Federal and Provincial TVE Acts	Coordination mechanism encompassing federal, provincial governments in the spirit of Federal and Provincial TVE Acts	No coordination mechanism aligned with the spirit of Federal and Provincial TVE Acts exist	Coordination mechanism encompassing federal, provincial governments in the spirit of Federal and Provincial TVE Acts operational	x	x	x	x	x	x	x	x	x	x	CTEVT; CEHRD
60401-2		Coordination mechanism across ministries one each at federal and provincial governments in the spirit of Federal and Provincial TVE Acts	No such coordination mechanism aligned with the spirit of Federal and Provincial TVE Acts exist	Coordination mechanism (inter-ministerial coordination mechanism) one each at federal and provincial governments encompassing relevant ministries operational	x	x	x	x	x	x	x	x	x	x	CTEVT; CEHRD

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
60401-3		Coordination mechanism encompassing provincial and local governments in the spirit of Federal and Provincial TVE Acts exist	No such coordination mechanism aligned with the spirit of Federal and Provincial TVE Acts exist	Coordination mechanism encompassing provincial governments in the spirit of Federal and Provincial TVE Acts operational	x	x	x	x	x	x	x	x	x	x	Provincial TVE Authority
20300-3		Coordination mechanism among three levels TVE bodies and other inter/national development partners for coherence and synergy among interventions in place	Does not exist	Coordination mechanism among three levels TVE bodies and other inter/national development partners for coherence and synergy among interventions in place operational		x	x	x	x	x	x	x	x	x	MoEXT, MOSDs/MoEs/ Local levels and relevant national, and international development partners
<b>60500</b>	<b>Enhancing TVE financing</b>														
60501	Operationalize SWAp Approach of financing	All resources are mobilized in SWAp approach	Public funds through public system and donor funding on project based	All resources are mobilized in SWAp approach		x	x	x	x	x	x	x	x	x	GoN
60502	Affordable fee structure (Constituent, Partnership, TECS and Private)	Scientific fee structure in place	CTEVT: Assumptions based on distribution resources on HR, material and overhead	Scientific fee structure in operation		x	x	x	x	x	x	x	x	x	CTEVT
60503	Make TVE up to diploma level free of costs (Publicly funded programs)	No parents' contribution collected from parents of Technical Stream students	Various amounts of fees including parents' contribution in CTEVT and CEHRD system	TVE up to Diploma level is free of cost in all public funded programs			x	x	x	x	x	x	x	x	CEHRD

CODE	Objectives, strategies and interventions	Indicator	Baseline (2078)	Target (2089)	Timeline (short run: 2080-2081; medium: up to 2082-2084; long: up to 2089)										Responsible agency
					80	81	82	83	84	85	86	87	88	89	
			which varies by programs and qualification levels.												
60505	Facilitate soft loan to new entrepreneurs and self-employed graduates	Share of graduates (self-employed or new entrepreneurs) with access to soft loan	Does not exist	25% annual graduates	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	CTEVT and CEHRD
60506	Integration in Government Accounting and reporting system	Government Accounting and reporting system in place	CGAS system in place	Government Accounting and reporting system in operation	x	x	x	x	x	x	x	x	x	x	MoEST/GoN
60507	Introduce cost sharing system at three level of governments[2]	Share of funds borne by three government level	Baseline data does not exist	Cost sharing among three government levels in operation	x	x	x	x	x	x	x	x	x	x	MoEST/GoN, MoSD (relevant provincial ministry and LLs)
<b>60600</b>	<b>Putting technical backstopping system in place in collaboration with federal, provincial and local levels</b>														
60601	Establish technical backstopping mechanism through a Joint Team of Federal, provincial and local level TVE authorities	Technical backstopping mechanism through a Joint Team of Federal, provincial and local level TVE authorities established	Technical backstopping from federal to province and local level and from Province to Local Level does not exist due to federal structure of governance	Technical backstopping mechanism through a Team of Federal, provincial and local level TVE authorities operational		x	x	x	x	x	x	x	x	x	CTEVT and CEHRD

As continuation of TVE Reform Strategic Plan, financial resources required for its implementation and implementation plan are presented as PART III of this report.

## **PART III**

## CHAPTER VI TRSP Implementation Plan

### 6.1 Financial estimations

Based on the proposed interventions under various performance areas explained in Chapter 5.2, financial resources required to implement this reform plan has been estimated. For this purpose, two alternative growth scenarios that will drive the demand of workforce in the economy are presented below:

- **Scenario A:** In planned growth scenario, the government is expected to achieve the growth targets, as envisioned in the 15th Plan as well as projected in the Sustainable Development Goals (SDGs).
- **Scenario B:** In the business-as-usual growth scenario, country shall economically progress with the same growth as has been the case for the last 10 years. In other words, in this scenario, the country's economy will grow by an average 4.6% per annum for the next ten years.

Following sections of this chapter discuss the Scenario A with cost estimations are presented in Table 6.1. The resources estimated for Scenario B is detailed in Annex 11b to 11d.

#### 6.1.1 Methods of financial estimations

Methods of these estimations were as follows:

- a. First, intervention activities were determined under six objectives (pillars) of TRSP and related strategies under them (Chapter 5.2). Moreover, for each intervention, baseline and distribution targets across the reform period were also ascertained. Major interventions are explained in Annex 12 for assisting better read.
- b. In the second stage, the unit and associated prices based on the current standards and norms were determined for each of the specific activities under each strategy. When the current standards and norms for units or prices were not available or not applicable, informed assumptions, keeping the stakeholders' consultation inputs in perspective, were made.
- c. Third, the cost was calculated for 10-years reform period. The first two years (short-run) are considered as a preparatory phase. The next three years (medium-term) will see intensification of reform and full-fledged reform in the remaining five years (long-run) of the reform plan. All cost estimates are on constant (today's) prices.

#### 6.1.2 Total financial requirements and its distribution

As shown in Table 6.1, NRs 759.7 billion is estimated to require to carry out the 10-yearlong strategic reform plan. As per the estimations, the short-run, medium-run and long-run financial requirements are 7.3%, 32.5% and 60.1% respectively. As such, the share of financial resource requirements is largest for the long-run (BS 2086-89) followed by the medium-term (BS 2082-85).

Table 6.1: Estimated costs by TRSP Objectives and TRSP duration (in NRs. *arab*)

Code	Objectives, strategies, and interventions	Total		Short-run (2080-81)	Medium-run (2082-85)	Long-run (2086-89)
		Amount	%			
<b>10000</b>	Expand TVE programs ensuring access and equity, and for innovation	671.66	88.4%	46.85	208.56	416.26
	<i>Access</i>	561.95	74.0%	39.16	154.43	368.36
	<i>Equity</i>	67.85	8.9%	7.66	48.45	11.73
	<i>Expansion</i>	41.87	5.5%	0.02	5.68	36.17
<b>20000</b>	Improve Quality (instructors, standards and curriculum,	45.66	6.0%	3.40	27.02	15.23

Code	Objectives, strategies, and interventions	Total Amount	%	Short-run (2080-81)	Medium-run (2082-85)	Long-run (2086-89)
	instructors preparation, physical infrastructure and examination/assessment) and Efficiency of TVE services					
30000	Enhance outputs of TVE services	1.80	0.2%	0.12	0.95	0.72
40000	Ensure Integration and recognition of TVE qualifications (operationalization of NTQF)	13.17	1.7%	1.56	3.13	8.48
50000	Develop TVE Management System (HR development, school management, Knowledge Management, and financing)	27.39	3.6%	3.86	7.37	16.17
60000	Improve governance and Coordination, and Financing	0.04	0.0%	0.01	0.01	0.02
	<b>Grand Total</b>	759.73	100.0%	55.79	247.05	456.88

Distribution of estimations by objectives suggest that expanding TVE for better access, and equity, and innovation (the first TRSP objective) is the single largest costs (88.4%) of strategic reform initiatives. This objective absorbs the large share of cost because it focuses on many aspects of quality and regulatory assurance, including teacher/instructors hire and development, institutes' capacity enhancement, and lab and equipment. Such aspects are part of access and are considered minimum requirements. The plan on access is also influenced by political parties' election manifestoes (2079) which lay a higher level of emphasis on access leading to expansion. Regarding expansion, enhancing access has been a major priority and thus is expected to incur 74.0% of the total costs. To ensure equity and expansion of programs and institutes, prioritized areas are proposed to cost 8.9% and 5.5%, respectively.

The second objective is to enhance quality of TVE services (6%), which include improving instructors' capacity, reforming standards and curriculum, upgrading physical infrastructure, creating efficiency in examination and assessment, among others. However, the school operation cost (IOC) sharing 59% of the total cost allocated under the Access, Equity and Expansion objective also includes 22% share for quality relevant components<sup>70</sup>. In other words, 12.98% of the total estimates are for quality enhancement but it is within the Access, Equity and Expansion objective. Therefore, if this amount is added to the 6% allocated for quality objectives, the total allocation for quality related interventions becomes 18.98%.

The other reforms areas such as increasing TVE service outputs, ensuring integration and recognition of TVE qualifications and developing TVE management system and governance require low financial costs as these reforms need only policy interventions. Despite they require low costs, these reform areas are equally critical to achieve desired reform objectives. The explanations on financial estimates are detailed in Annex 13.

<sup>70</sup> 12.98% (22% of 59%) of total cost allocated in the Access, Equity and Expansion component are divided as below:

- a. Staff welfare and capacity development: 4%;
- b. Industry/field visit, student exhibition visit and student WEP/OJT/Block study: 1%;
- c. Practical test Material, Part time teaching, Soft skill instruction, OHS instruction, Student evaluation activities, recreational activities, Student workplace insurance and Student community work/learning activities: 4% and
- d. Shared cost of Physical Facilities: 13%.



### 6.1.3 Sources of Finance

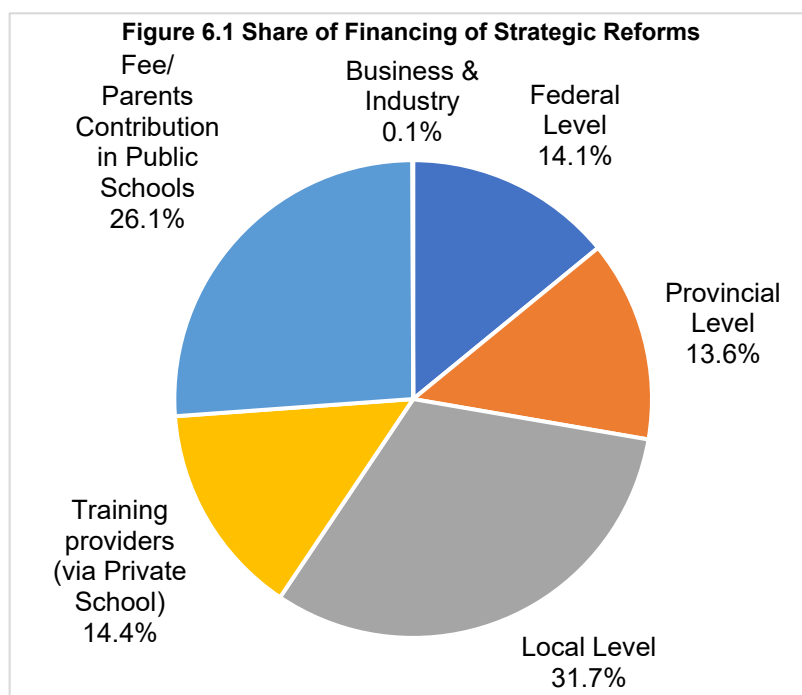
In terms of financial sources, nearly 60% of the costs is incurred by public sector, including federal, provincial, and local government entities (Table 6.2). Similarly, private sectors that comprise training providers, students and business and industrial sectors contribute the remaining 40%.

Table 6.2: Estimated financing sources for TRSP (in NRs. Arab)

Sector	Cost centre	Total	%	Short run (80-81)	Medium run (82-85)	Long run (86-89)
<b>Public</b>	Federal Level	107.07	14.1	4.87	37.74	64.46
	Province Level	103.50	13.6	10.71	36.37	56.43
	Local Level	240.83	31.7	20.70	86.08	134.05
	<b>Subtotal-Public</b>	<b>451.40</b>	<b>59.4</b>	<b>36.28</b>	<b>160.19</b>	<b>254.94</b>
<b>Private</b>	Training providers (via Private School)	109.69	14.4	7.79	30.75	71.15
	Fee/ Parents Contribution in Public Schools	198.29	26.1	11.71	56.01	130.56
	Business & Industry	0.35	0.0	0.01	0.10	0.23
	<b>Subtotal-Private</b>	<b>308.33</b>	<b>40.6</b>	<b>19.51</b>	<b>86.86</b>	<b>201.94</b>
<b>Grand Total</b>		<b>759.73</b>	<b>100.0</b>	<b>55.79</b>	<b>247.05</b>	<b>456.88</b>

(NRS. 1 arab = US \$ 7.7 million)

The public sector entities include federal, provincial, and local governments. They are expected to share 14.1%, 13.6% and 31.7% (own source revenue and fiscal transfer from federal and provincial governments), respectively of the total estimates (Figure 6.1). The remaining contribution is expected from out-of-pocket expenses that include training providers via private schools. Federal quality and regulatory assurance body (CTEVT) is expected to oversee all functions under quality assurance responsibility: research, preparing competency standards and curriculum, standards of processes and procedures, instructors preparation and licensing, program/institutional accreditation, technical backstopping (monitoring), assessments and certification, equivalency. This body is also expected to implement 2-3 centers of excellence/ model institutes/ schools in each province to serve as indicator of quality assurance for the other schools. These schools/ institutes could also offer higher level



qualifications targeting international students as well. The province government can play an important role in advocating demand-driven TVE programs by providing affiliations, establishing industry linkages and ensuring enhanced employment prospects for TVE graduates and providing reinforcement to local governments. They could implement programs above Diploma level. However, they could also partner with local level while implementing secondary level programs. The local level, similarly, could link up graduates with local economic sector and market. These allocations of responsibilities have influenced the distribution of share of financial resources.

Regarding private financing, out-of-pocket expenses by the students including that in the form of parents' contribution has significant share in strategic reform financing. In fact, the out-of-pocket expenditure via training providers/ private schools is estimated to contribute nearly 14.4%. It also includes 2.2% of total contribution by private training providers in form of technology, human resources development and equipment deployment etc. Significant role played by private sector investment in TVET sector was shown by study carried out by Pradhan et al 2019<sup>71</sup> similarly, the parents'/students' contribution in form of fees in public schools is estimated to be 26.1% of the total costs of proposed reform effort.

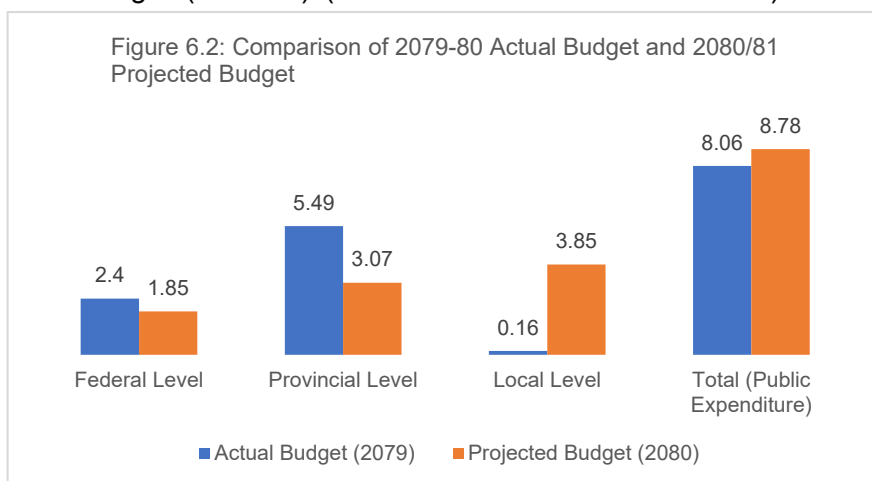
Businesses and industries too are assumed to contribute to the cost. They mainly contribute to governance reforms, for example, during the formation and sustain Sector Skill Councils (SSC). GoN may cover the annual operational cost per SSC for the initial years.

In the alternative growth scenario (Scenario B), the cost of reform initiatives is estimated as NRs. 533.39 Arab. The figures in Annex 11b suggest that on average NRs. 31.73 arab will be required annually. That suggests even the current estimated NRs. 20 arab spent in TVE from the public sources falls significantly short compared to what is required in the ongoing scenario. The details of breakdown of the costs across reform period as well as sources of financing is detailed in Annex 11.

#### 6.1.4 Comparison between 2079/80 (actual) and 2080/81 budget (estimated)

Figure 6.2 shows how the projected budget (2080/81) (calculated based on Scenario A)

deviates in comparison to the actual budget of current fiscal year (2079/80). For the first year of the reform period (i.e., BS 2080/81), the proposed financing structure suggests moderate increment in existing public expenditure (i.e., FY 2079/80) from NRs. 8.06 arab to NRs. 8.78 (an increment of 8.9%) (Figure 6.2). However, there are changes in cost-related responsibilities of three levels of government. For example, local government's



budget is projected to increase to NRs. 3.85 arab from existing NRs. 0.16 arab. This is due to handover of fact that major responsibilities of 9-12 TVE programs including CTEVT is being gradually handed over to local levels as per the constitutional mandate. In corollary, the share

<sup>71</sup> Pradhan, H., Neupane, M. S., and Devkota, P. 2019. Private Sector Investment in TVET Sector. Kathmandu: MoEST/ European Union/ British Council/ Dakshyata Project.

of federal and provincial budget in the TVE sector is likely to decrease by NRs. 0.55 and NRs. 2.42 arab, respectively.

## **6.2 Implementation Mechanism for implementation of the TRSP**

As provisioned in the Constitution and Local Governance Operation Act, CTEVT Act, the TVE responsibilities are allocated at three levels: federal, provincial and local levels. Accordingly, CTEVT needs to be developed as a national TVE Quality Assurance and regulatory Authority (NTQAA) with the overall quality assurance responsibility. The implementation responsibility will be entrusted mainly to province and local levels. The responsible agencies and their roles and responsibilities are described in the following sections and are summarized in Figure 6.3.

### **6.2.1 Federal Level**

Currently, CTEVT, due to its institutional and HR expertise in quality assurance aspects (research, standards and curriculum development, instructors/ teacher and staff preparation, accreditation, examination and certification, equivalency and technical backstopping), is best institution to assume the national TVE Quality Assurance role. Other federal stakeholders include sectoral ministries, National Planning Commission, Ministry of Finance and donors are major stakeholders at federal level. The Business and Industry Associations and their members, and relevant economic sectors (BIAs), universities and other national development partners/ NGOs are also federal level stakeholders who through their respective wings could also collaborate at province and local levels. International development partners including international NGOs as mandated by government are important sector stakeholders who are expected to align their support with interventions/ actions identified by the TRSP.

#### **6.2.1.1 CTEVT**

CTEVT as explained above will be developed to assume role of national quality and regulatory assurance authority by building on the systems and experiences it has gained over the last 30 years. CTEVT's responsibilities are as follows:

##### **a. Policy formulation for MoEST/ Government of Nepal**

- Support MoEST in development and revision of federal TVE Act, rules, regulations and policies as appropriate
- Develop and revise the existing bylaws/regulations to align them with this TRSP provisions
- Provide technical backstopping to P-TVEAs and Local levels to develop and revise TVE Act, rules, regulations and policies as appropriate. This input would also include technical support to the P-TVEAs and Local levels during actual implementation process.
- Implement and facilitate implementation of TVE Act, rules, regulations and policies as appropriate.

##### **b. Technical responsibilities**

- Conduct research and manage knowledge management system including MIS
- Develop standards and curriculum and facilitate in their implementation
- Develop instructors/teachers' standards
- Prepare instructors particularly Chief Master Instructors
- Prepare TVE staff as appropriate
- Provide license to instructors/ teachers under its jurisdiction
- Support provincial Teacher Service Commission to select competent teachers
- Accredite schools and programs
- Conduct examination and issue certificates which will also include steering the RPL process
- Issue equivalency

- Provide technical backstopping as required
- Conduct monitoring and evaluation of publicly funded international TVE initiatives (programs and projects)

### **c. Coordination**

It will have major role in ensuring coordination with relevant institutions/ stakeholders at all the three governance levels:

- Other ministries via MoEST (for ensuring quality and relevance, and technical backstopping)
- Universities/ academia for development of TVE resources and ensuring recognition and equivalency
- Provincial governments (for ensuring quality and relevance, and technical backstopping)
- Local governments (for ensuring quality and relevance, and technical backstopping).

Coordination mechanism is further explained in Annex 17.

### **d. Model/CoEs**

As part of quality assurance responsibility, CTEVT will also implement 2 to 3 institutes/ schools per province. This provision, as provisioned by the government programs and budget for the last two fiscal years, clarifies that most of the schools currently under CTEVT/ federal level will be handed over to provinces. These schools will be allowed flexibility to offer courses to respond to market demands.

#### **6.2.1.2 Centre for Education and Human Resources Development (CEHRD)**

Currently, CEHRD under MoEST, provides technical and financial support to Technical Stream schools managed by local levels. Given the capacity at the local levels, the CEHRD will continue to offer its services and mobilize Educational Development Coordination Unit (EDCU). However, for all the services related to quality assurance, it will collaborate with CTEVT. At province level, it coordinates with CTEVT province offices for relevant technical inputs.

#### **6.2.1.3 Other Ministries**

Over 12 ministries are engaged in long and short term TVE programs. Their functions are summarized below:

- a) As the TRSP envisages large number of long- and short-term programs, these ministries will continue to engage in implementation.
- b) The TRSP envisages that the CTEVT assumes the overall quality assurance roles. These ministries will carry out the implementation process using the systems developed by CTEVT. They will be responsible for monitoring of and providing necessary support to the programs they are responsible for.
- c) They will also conduct market assessment to ensure employment and income outcomes.

#### **6.2.1.4 Ministry of Finance**

Ministry of Finance will fund all the programs using the already practiced constitutional provisions.

#### **6.2.1.5 National Planning Commission**

National Planning Commission will facilitate and support necessary research and human resources projections but aligning with national TVE qualification framework (NTQF).

### **6.2.1.6 Business and Industry Associations (BIAs)**

BIAs have two major roles as leaders and members of:

- a. TVE governance institutions (CTEVT Assembly, CTEVT Council, and institutes/ school management committees)
- b. Sector Skills Councils (SSCs)

The details of governance institutions have been explained in Chapter 5.2.7. However, SSCs, through its provincial and local level branches, are expected to assume but not limited to the following roles<sup>72</sup>:

- a. Establish LMIS and share it with TVE system
- b. Provide technical expertise to develop occupational skills/ competency standards and curriculum, and relevant learning resources
- c. Conduct needs assessments and learners/participants selection for education and training programs
- d. Facilitate expert workers exchange events with schools/institutes
- e. Facilitate work-based learning of various models
- f. Support during assessment/ examinations including NSTB skills testing events
- g. Facilitate employment, and market and financial linkage and
- h. Support research and innovation.

SSCs however are not education and training providers. They will be legislatively registered body and will be funded by government in the initial phase. Later, once the value of SSCs' contribution is realized, the government support will be replaced by employers' contributions, but an agreed level of funding will be sourced from government. The number of SSCs will be determined by their GDP and employment contribution to the specific economic sector.

### **6.2.1.7 International development partners**

International development partners including international non-governmental organizations have been making important contribution to the development of TVE sector. Therefore, the TRSP envisages that all public international financial support will be channelled through federal treasury (SWAp). However, in case of inability to contribute the financial resources to the government treasury, due to international mandates, such partners will align their programs/actions with the TRSP objectives, strategies and interventions. Such partners will extend their support through CTEVT, P-TVEAs and local levels as appropriate.

## **6.2.2 Province Level**

Ministry of Social Development (MoSD) and Ministry of Education (MoE), whose name may further vary at provinces, will be the major body to implement TVE at the province level. In order to assure the link between the TVE and employment world/economic sectors, Provincial TVE Authority (P-TVEA) will be established as an autonomous institution in each province. It will have following roles and responsibilities:

- a. Develop provincial policy aligned with federal TVE Act and policies
- b. Organise/ manage province-level Research and knowledge management including MIS. Coordinate and share the process and results with CTEVT helping to maintain national repository of research and new knowledge, and also share with stakeholders across the nation
- c. Mobilise the federally developed standards and curricula to:
  - Implement TVE institutes/ schools with short- and long-term programs
    - i. Affiliation and permission for schools' operation
    - ii. Providing funding
    - iii. Monitoring and evaluation

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<sup>72</sup> Policy Guiding Document, 2021. Public Private Partnership in TVET 2021. MoEST/ EU/ BC- Dakchyata Project.

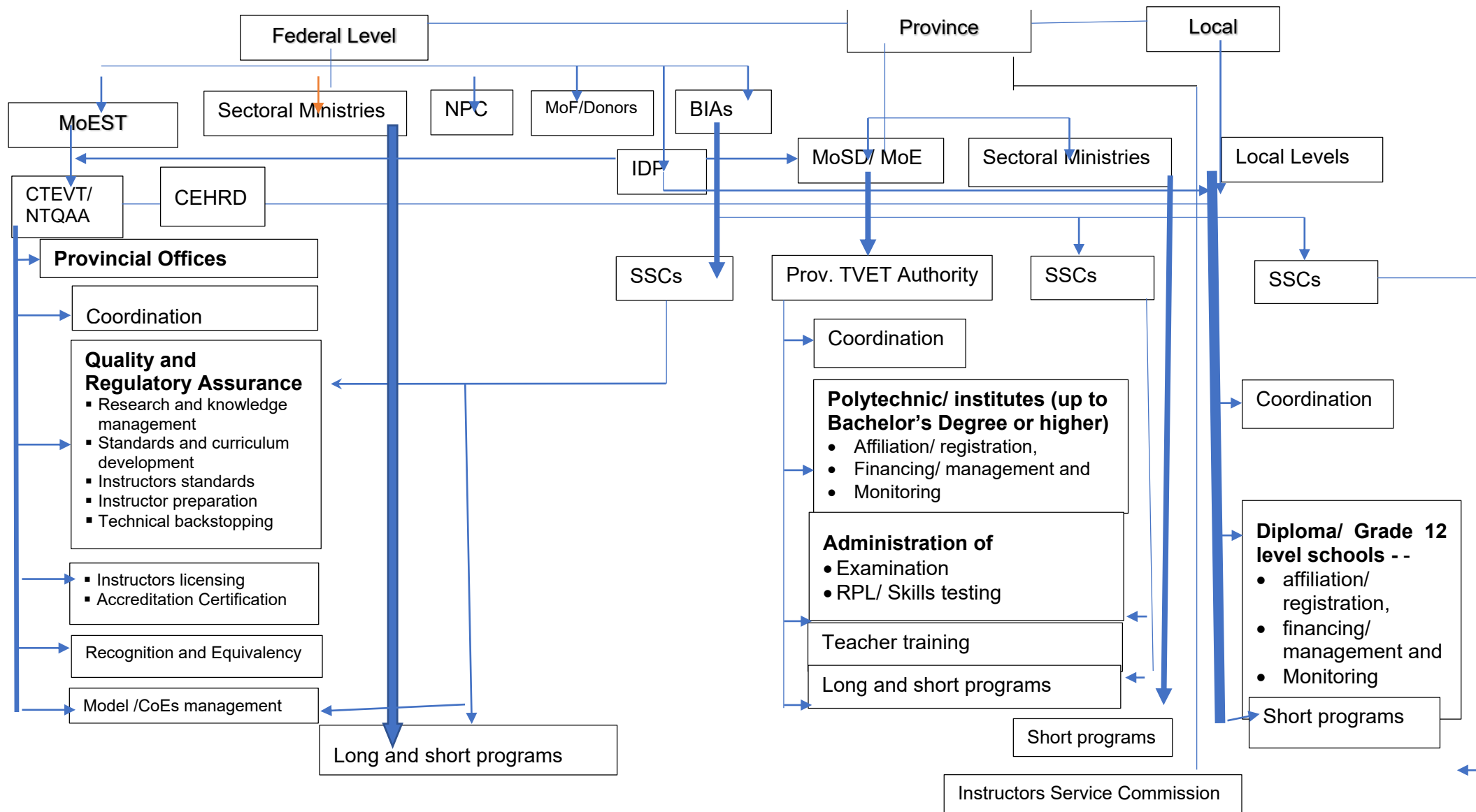
- Help P-TVEAs and local levels to include local competencies relevant to the specific local needs in the standards and curricula.
- With support from Provincial Teachers/Instructors Service Commission, select and recommend teachers/ instructors for the schools in the province
- Teachers/ instructors preparation
  - i. Establish a provincial Instructors Training Institute (P-ITIs) in each province under P-TVEAs
  - ii. In collaboration with TITI/ Chief Master Trainers at the federal level, provide teacher/ instructors training to the teachers/ staff in the province including those from Local levels and private sector/NGOs.
- Support CTEVT provincial offices in conducting assessment/ examinations for both short- and long-term programs
- d. Coordinate with:
  - All stakeholders in the province including CTEVT and relevant provincial offices.
  - BIAs to facilitate: i) on-the-job-training (OJT); ii) employment linkage and iii) financial linkage and others as appropriate.
- e. Collaborate with private sector schools/ institutes and non-governmental organizations in implementation of TVE programs.

### **6.2.3 Local levels**

As mandated by the Constitution and Local Government Operation Act, the local levels will have following roles and responsibilities:

- a. Organise/ manage local level research and knowledge management including MIS
- b. Arrange affiliation/ permission of technical schools,
- c. Organize, promote and facilitate linkage between academia (TVE) and community
- d. Promote and preserve traditional skills and facilitate grow entrepreneurs for gainful employment at local level.
- e. Finance/ manage/ implement of technical schools and recruit teachers/ instructors recommend by Provincial Teachers/Instructors Service Commission
- f. Monitor and evaluate schools/ institutes under their jurisdiction.

**Figure 6.3: Institutional mechanism for TRSP implementation**



### 6.3 Implementation Milestones

This section includes:

- Major intervention milestones
- Monitoring and evaluation plan; and
- Risks and assumptions.

#### 6.3.1 Major implementation actions

This section presents indicative milestone for TRSP implementation with estimated timeline and institution responsible for delivering the specific milestones (Table 2.4).

Table 6.3: TRSP Implementation milestones (2079 - 2089)

SN	Action	Timeline	Responsibility	Remarks
0	Formation of National TVE Coordination Committee (NTCC)	Falgun 2079	MoEST	Formation and Terms of references are presented in Annex 17.
2	Formation of Provincial TVE Coordination Committee (PTCC)	Falgun 2079	MoSD/ Local levels	Formation and Terms of references are presented in Annex 17.
4	Formation of Provincial Technical Committee (PTC)	2079	MoSD	PTCC to form PTC and its Terms of Reference
4	Formation of Local level TVE Coordination Committee (LTCC)	2079	MoSD/ Local levels	Formation and Terms of references are presented in Annex 17.
5	Formation of Local Level Technical Committee (LTCC)	2079	MoSD	LTCC to form PTC and its Terms of Reference
2	Formation of High Level NTQF Steering /Coordination Committee (NSC) ) (Annex 23)	Chaitra 2079	MoEST	<ul style="list-style-type: none"> <li>For monitoring and evaluation of NVQS implementation progress at the federal and province level</li> <li>Membership from universities' VCs and Public Service Commission.</li> </ul>
P	Formation of NTQF Management Committee (NMC) (Annex 24)	Chaitra 2079		<ul style="list-style-type: none"> <li>For management and monitoring and evaluation of NTQF implementation progress at the federal and province level</li> <li>Membership from University Deans and current high-level office bearers and Public Service Commission.</li> </ul>
8	Relevant federal TVE Act promulgation or amendment of CTEVT Act	2080	MoEST/ Government	
9	Formulation of new provincial TVE Acts	2080	MoEST/ Government	
00	Formulation of new TVE Policies at all levels	2080	Provinces	

#### 6.3.2 Monitoring and Evaluation Plan

Tentative timeline for Monitoring and evaluation of the TRSP implementation is presented in Table 2.3.



Table 6. 4: Monitoring and Evaluation plan

SN	Action	Responsibility	Level	Methods
0	Bi-annual review			
0.0	Six monthly review	NTCC	Federal	internal sharing
0.2		PTCC	Provincial	internal sharing
2	Annual review	NTCC	Federal	External experts
4	4 year-end evaluation (2082)	NTCC		External experts
3	5 year-end evaluation (2083)	NTCC		External experts
5	10 year end evaluation (2089)	NTCC		External experts

#### 6.4 Key Performance Indicators for assessing progress

Analyses, importance and urgency of needs analysed in Part II (Chapter V) serves as basis for designing following Key Performance Indicators, considered relevant for government and stakeholders (Table 6.5). The performance areas, relevant indicators and baseline are drawn from Annex 7.1 of the TVET Sector Assessment Report (TVET SAR 2079) and are presented in Annex 1 of this plan. The targets are drawn from the target set in Chapter 5.2 of this reform plan.

Table 6.5: Key performance indicators for assessing progress

SN	Performance area	Key Performance Indicators		
		Key Performance Indicators	Baseline (2078)	Targets (2089 or before)
1	Access and equity	Local levels with TVE institutes	635 Local Levels (LLs)	709 LLs
		Long term program enrolment capacity	107411	203904
		Short course enrolment capacity	Baseline does not exist	503253
		<b>Enrollment rate</b>	51% (54871 of 107411)	100% (203904)
		Full board Scholarship to students from Local levels without TVE institutes	80 (in 118 LLs)	440 (in 44 LLs)
		<b>Girls participation ratio</b>	0.43:1	1:1
		Share of social inclusion	45%	45%
		Share of schools with GESI Coordinator	Exists in some schools	100%
		Cost for GESI specific tools per students	Does not exist	NPR. 1000
		Merit scholarships in each school and in each program	1 in each program	2 in each program
		Classified scholarships in each school and in each program	3 in programs with 40 enrolment and 4 in programs with 48 enrolments	8 in each program (48 students in each program)
		Full board scholarships for <i>bipanna</i> , females, <i>loponmukh aadibashi</i> , <i>janjati</i> (indigenous nationality), Dalit, people from remote areas, People with disabilities (PWD), conflict affected	560	1120
		PWD-friendly infrastructures (ramp, toilet, class room etc)	Toilet:36.4%	100%
		Share of schools for PWD	0.13%	2%

SN	Performance area	Key Performance Indicators		
		Key Performance Indicators	Baseline (2078)	Targets (2089 or before)
2	Expansion	Expansion of Vertical Qualifications and Horizontal programs	Does not exist after Diploma (Vertical expansion)	Advance Diploma (Level-5) Bachelors' level (Level 6)
			Programs are mainly in Engineering, Health and Agriculture sectors (Horizontal expansion)	Other sectors such as railways, tunnel, aviation engineering, banking, insurance, fashion design etc.
3	Quality	Accrediation of schools/ programs	Does not exist	50%
		Instructors number per program	CEHRD= 5.9	7-instructor per program (could vary with NTQF based curriculum design)
			Pre-Diploma= 2.88 Diploma= 2.04	
		Reduce share of temporary/ service contract (%)	CEHRD= 24.2%	25%
			Pre-Diploma= 89.2% Diploma= 88.3%	
		Development/ revision of standards and curricula as per NTQF level descptors	0 (2078); initial work in progress with NSTB	100%
		Instructional skills training	CEHRD= 0% (20P8) CTEVT = 20% (20P8)	90%
		Occupational Skills Upgradation (OSU) training	CEHRD= 0% (20P8) CTEVT = 0.2% (20P8)	50%
		% of schools with >75% workable machines and equipment in the school labs for practical training	CEHRD= 20% ( 20P8)	<b>&gt;90%</b>
			Pre-Diploma= 50% (20P8) Diploma= 20% (20P8)	
		Application of formative assessment	Not exactly as formative assessment method	000%
Duration of results publication after final examination	2 months	2 months		
Duration of skills testing/ RPL results publication	3 months	0 month		
4	Efficiency	Cycle completion rate (for students who complete specific qualification of study continuously, semester 1 to 4)	Pre-Diploma= 48% (20P8) Diploma= 52% (20P8)	>90%
		Survival rate (within additional 3 years' time) (for students who	CEHRD= 5P.9%	>90%

SN	Performance area	Key Performance Indicators			
		Key Performance Indicators	Baseline (2078)	Targets (2089 or before)	
		complete specific qualification of study continuously, semester 1 to 4)			
		Promotion rate to Grade 12 (diploma level)	20% (20P8)	>90%	
5	Outcome, output and relevance	No. of long-term program graduates	Technical stream: 16505; Pre-Diploma: 240840; Diploma: 96227; Total: 353572 till 2078	166277 (in 2089)	
		No. of short courses program graduates	Skills test number as proxy indicator= 37924 (in 2077)	226464 (in 2089)	
		NTQF based competency standards	No baseline data available	At least 225	
		NTQF based curricula (modular competency and credit based)	271 curricula (NVQ aligned curricula does not exist)	At least 150	
		Employment rate	CEHRD= 29% (20P8) Pre-Diploma= 20% (20P8) Diploma= 22% (20P8)	>80%	
		Sector Skills Councils established by law	0 (20P8) (currently 3 Sector Skill Committee in place but they are not legally registered)	>20	
		Share of BIAs in CTVEB bodies	CTEVT Assembly =	0P%	>50%
			CTEVT Council =	0	>50%
			NSTB =	50%	>50%
			School management Committee =	00%	>50%
		Share of schools with BIAs in School Management Committee (SMC)	CEHRD =	48%	000%
			CTEVT =	42%	
Share of BIAs in SMC	CEHRD =	04%	<50%		
	CTEVT =	08%			
6	Integration	Application of NTQF level descriptors based curricula	CTEVT= 0% CEHRD= 0%	000%	
		Implementation of new education qualification structure	Pre-diploma = 1.5 yrs. Diploma = 3 yrs. Technical Stream = 2.5 yrs. after Grade 10	Pre-diploma = 2 yrs. Diploma = 2 yrs.	
			Advance Diploma does not exist	Advance Diploma = 1 yr (subject to NTQF based curricula).	
			Bachelor's degree and beyond does not exist	At least, Bachelor's level	

SN	Performance area	Key Performance Indicators		
		Key Performance Indicators	Baseline (2078)	Targets (2089 or before)
				qualification = 3 years.
			Curricula are not credit, modular and competency based which requires student to complete all the course duration in one go. It has made the TVE a rigid system making uninteresting for financially weak and time poor.	All curricula are credit, modular and competency based to allow multi entry and multi exist. TVE programs are made flexible.
			All short courses are standalone (not credited)	Short courses are made part of long-term qualification.
7	School Management	Share of schools with headteacher/ principal who attended schools' management training	15.2%	75%
		Share of schools with Student Career Counselling Unit (CCU)	CTEVT= 30% CEHRD= 43%	000%
		Share of schools with graduate support for employment	CTEVT= 32% CEHRD= 32%	000%
		Share of schools with graduate support for self - employment/ enterprise development	CTEVT= 3P% CEHRD= 50%	000%
		Share of schools with tracer study system	CTEVT= 42% CEHRD= 20%	000%
		Share of schools with Production Unit	CTEVT= 0P% CEHRD= 05%	000%
		Annual budget allocated to school per year per student	Annual budget varies with schools' model	Estimated NPR. 186,000 per year per school with 3 programs per student
8	Goverance and coordination, and finance	Federal TVE Act <b>promulgated</b> or CTEVT Act ammended	Does not exist but CTEVT Act 2045 (Amended in 2075)	2080
		CTEVT restructured as National Quality Assurance <b>and regulatory</b> Authority	CTEVT assumes both quality assurance and implementation responsibilities	CTEVT assumes only quality assurance responsibility with 2-3 CoEs/ models schools per province
		Provincial TVE Acts (incuding the revisions of Bagmati and Gandaki provincial TVET Acts)	Bagmati and Gandaki have TVE Acts but the rest do not have	2080

SN	Performance area	Key Performance Indicators		
		Key Performance Indicators	Baseline (2078)	Targets (2089 or before)
		Key Performance Indicators	Baseline (2078)	Targets (2089 or before)
		New Federal and Provincial TVE policy	Federal TVE Policy as part of Education Policy 2019	2080
			Bagmati and Gandaki have TVE Policy but the rest do not have it	
		Coordination mechanism among and within federal, provincial and local levels	Does not exist	Coordination mechanism operation among and within federal, provincial and local levels
		SWAp approach of financing in TVE	Does not exist	All resources are mobilised in SWAp approach
9	Knowledge management	NTQF and NSCO aligned studies	Does not exist	2080
		BIAs/SSCs/ economic sectors led Employment market baseline and projections	Does not exist	2081
		BIAs/SSCs/ economic sectors led realtime operational LMIS in place	Does not exist	2081
		<b>Federal level research, innovation</b> , technical issues focused seminars	Some practice	1 annually
		TMIS/LMIS/FMIS operation	Some level of standalone in each component exist	Integrated MIS (TMIS/LMIS/FMIS) in operation

## 6.5 Risks and mitigation measures

Various risks associated with political, financial, and managerial context are envisaged. Therefore, assumptions are made to address the issues (Table 6.6)

Table 6.6: Risks and assumptions

SN	Risks	Assumptions
1	Individuals' right of skilling as provision in constitution will remain overlooked	Following the constitutional provisions and by remaining within TVE principles, skills/ competence development will continue as citizens' rights.
2	TVE Act capable to facilitate implementation of this reform plan will continue to remain uncertain.	<ul style="list-style-type: none"> <li>Federal TVE Act based on TVE principles and best international practices will facilitate specific TVE Policy and similar instruments at province and local level will be built.</li> <li>It will ensure Government/MoEST leadership, BIAs/ economic sectors' ownership and all inter/national development partners' productive partnership.</li> </ul>
		<ul style="list-style-type: none"> <li>In case federal TVE Act is not promulgated, CTEVT Act 2035 will be ammended in line with the federal context</li> <li>In case of delay in achieving the objectives, some of the reform provisions will continue under the current CTEVT</li> </ul>

SN	Risks	Assumptions
		<p>Act will continue. For instance, curricula reform and implementation, and assessment and certification following government-approved NVQF (revised into NTQF) is possible. It could be done by establishing Coordination Mechanism as explained in Chapter 6.3.2. Similarly, school level reform is possible by training of school management and instructors.</p>
3	<p>Current TVE system structure will continue to exist without changes</p>	<p>The CTEVT system will be restructured to function as National Quality Assurance and regulatory Authority to make on regulatory and implementation responsibility crystal clear.</p> <ul style="list-style-type: none"> <li>• Only one quality assurance authority (CTEVT) will be responsible for all the quality assurance related actions</li> <li>• NTQS (NVQS), under CTEVT will serve as the basis of reform in all these TVE performance areas.</li> </ul> <p>All the current TVE bodies will continue the implementation responsibility in coordination with CTEVT. Implementation roles will be aligned with Constitutional provisions and best international practices.</p> <p>Building capacity to understand TVE based on TVE principles is costly. Therefore, during the CTEVT restructuring process, proper caution will be maintained at the highest level to avoid losing the current expertise developed over 3 decades of experiences.</p> <p>CTEVT will remain semi-autonomous body to allow free interaction between TVE system and economy (BIAs and other sectors of economy)</p> <p>Provincial TVE Authority as well will be autonomous body allowing it to freely interact with economy (BIAs and other sectors of economy)</p> <p>Coordination among different levels of government will be established for Technical Backstopping from the relevant competent body (CTEVT as federal QAA and P-TVEAs as the provincial TVE body)</p>
4	<p>Lack of HR capacity to understand and manage TVE system following TVE principles and keeping abreast of developments in international arena continues at MoEST/ CTEVT/CEHRD/CDC/ NEB</p>	<ul style="list-style-type: none"> <li>• HR management plan encompassing all organizations (TVE relevant ministries, TVE Assemblies, Councils, Boards, Authorities) - at all levels (federal, province and local levels) - will be prepared and systematically implemented to ensure their own capacity development</li> <li>• While creating structures for implementation of this TRSP, the existing HR expertise within these institutions will be retained and their capacity will be continued to build.</li> <li>• Similar to the measures mentioned above, it is important to ensure that required staff at province and local level are in place and long-term institutional/ HR capacity development plan is developed and operationalised. However, in order to keep updates about international developments, it is equally important to build capacity of the current TVE personnel at the federal level including them in the relevant ministries.</li> </ul>

SN	Risks	Assumptions
5	Business and industry do not take ownership of the TVE programs	<p>Government through the TVE Act or amended CTEVT Act and following TVE Principles establishes:</p> <ul style="list-style-type: none"> <li>i) At least 50% members of all TVE bodies: TVE Assemblies, Councils, Boards, Authorities, at all levels (federal, province and local levels) will have members from Business and Industry/ economic sectors</li> <li>ii) There will be at least 20 Occupational Skills Sector Councils. However, this number will correspond the findings of sector studies proposed in the TRSP</li> <li>iii) As far as possible, most of these bodies will be represented by Chairs and Vice Chairs of the related economic/ occupational sectors.</li> </ul> <p>The legislative instruments will incentivize BIAs/ economic sectors to ensure their effective participation in the TVE actions.</p> <p>Government introduces policy to encourage 'Make/ made in Nepal' initiative.</p> <p>Government policy will ensure measures to buy Nepalese products, at least, by public institutions.</p>
6	Lack of funding will hamper implementation of this plan	<p>Government in partnership with Business and Industry and inter/national development partners will ensure required budget.</p> <p>Partnership of BIAs/ economic sectors will be highly emphasized to avoid investment in physical resources that could be replaced by such participation.</p> <p>As far as possible, international support will be sought in grants form. Enough measures will be in place to ensure its prudent mobilisation.</p>
		Current and future programs under international development assistance that cannot be channelled through SWAp approach will also share, prioritize and implement the actions/ interventions identified by the TRSP.
7	TRSP will be implemented without flexibility for change	Reform strategic plans are not static and won't remain unchanged. Once new innovations or new information is available relevant to the sector and this plan, the TRSP objective, strategies and specific action/ intervention could be modified in response to such developments.
8	The economy will follow the traditional growth trajectory	<ul style="list-style-type: none"> <li>• Government will be able to put in place its targeted growth on which the graduate number is projected for this plan.</li> <li>• Government will ensure the TVE sector reform through various interventions under each objective and strategies of this TRSP to make TVE truly a "<b>Garikhane Sikshya</b>".</li> </ul>

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**Annex 1: TVET Sector Analyses Report (TVET SAR 2022): Indicators and Achievements<sup>1</sup>**
**Performance area: 3.2 Access and equity**

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Total
Programs	6	32	26	58	64
Program duration (Years)	4 (+1 yr OJT)	3	1.5	1.5-3	
Minimum entry criteria	Grade 9	SEE	SEE	SEE	
No. of schools/Institutes	485	558	548	1,106	1,591
Province No.1	95	58	74	112	207
Madhesh	83	78	65	124	207
Bagmati	81	183	138	282	363
Gandaki	50	60	66	109	159
Lumbini	98	111	107	185	283
Karnali	30	76	79	129	159
Sudurpaschim	48	85	112	165	213
Total programs in offer	485	1,102	956	2,058	2,543
Province No.1	95	126	139	265	360
Madhesh	83	147	109	256	339
Bagmati	81	319	197	516	597
Gandaki	50	84	96	180	230
Lumbini	98	195	165	360	458
Karnali	30	103	109	212	242
Sudurpaschim	48	128	141	269	317
Enrolment capacity	23,280	46,024	38,107	84,131	107,411
Province No.1	4,448	5,336	5,560	10,896	15,344
Madhesh	3,350	6,234	4,344	10,578	13,928
Bagmati	3,986	13,044	7,905	20,949	24,935
Gandaki	2,715	3,550	3,810	7,360	10,075
Lumbini	5,315	8,188	6,488	14,676	19,991
Karnali	1,155	4,348	4,360	8,708	9,863
Sudurpaschim	2,311	5,324	5,640	10,964	13,275
Enrolment capacity by Program					
CEHRD. Technical stream	23,280				23,280
Pre-Diploma			38,107		38,107
Diploma		46,024			46,024
Actual enrolment	16,148	28,357	10,366	38,723	54,871

<sup>1</sup> TVET Sector Analysis Report (TVET SAR), 2022.

<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Total</b>
Actual enrolment (%)	29	52	19	71	51
Province No.1	2,946	3,532	1,170	4,702	7,648
Madhesh	2,606	4,056	1,294	5,350	7,956
Bagmati	2,581	8,546	1,700	10,246	12,827
Gandaki	1,551	2,201	976	3,177	4,728
Lumbini	3,480	4,993	2,019	7,012	10,492
Karnali	888	2,098	962	3,060	3,948
Sudurpaschim	2,096	2,931	2,245	5,176	7,272
<b>No. of LLs with access to schools</b>	<b>426</b>	<b>-</b>	<b>-</b>	<b>386</b>	<b>637</b>
LLs with access to schools (%)	57			51	85
Province No.1	87			46	106
Madhesh	71			51	100
Bagmati	68			66	105
Gandaki	42			49	72
Lumbini	81			52	100
Karnali	30			58	71
Sudurpaschim	47			64	83
<b>LLs with access to schools (%)</b>					<b>85</b>
Province No.1					76
Madhesh					74
Bagmati					88
Gandaki					84
Lumbini					91
Karnali					90
Sudurpaschim					94
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
Sectorwise No. of Program	485	1,102	956	2,058	2,543
Agriculture	220	266	364	630	850
Engineering	264	403	333	736	1,000
Forestry		47	-	47	47
Health		371	235	606	606
Hospitality		13	7	20	20
Others	1	2	17	19	20
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
Sectorwise Enrollment Capacity (2078)	23,280	46,024	38,107	84,131	107,411
Agriculture	10,571	10,640	14,560	25,200	35,771
Engineering	12,661	19,242	13,227	32,469	45,130

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Forestry	-	1,880	-	1,880	1,880
Health	-	13,662	9,400	23,062	23,062
Hospitality	-	520	250	770	770
Others	48	80	670	750	798
<b>Indicators</b>					
Sectorwise Actual Enrollment (2078)	16,148	28,357	10,366	38,723	54,871
Agriculture	6,918	5,776	4,859	10,635	17,553
Engineering	9,200	11,870	5,235	17,105	26,305
Forestry	-	1,098	-	1,098	1,098
Health	-	9,374	-	9,374	9,374
Hospitality	-	236	79	315	315
Others	30	3	193	196	226

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Sectorwise Actual Enrollment by school type (2078)					
CEHRD (%)	69				
Private (%)				38	
TECS (%)				43	
Partnership (%)				57	
Constituent (%)				77	

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Enrollment Capacity	23,280	46,024	38,107	84,131	107,411
Actual Enrollment	16,148	28,357	10,366	38,723	54,871
Actual enrollment as % of capacity (2078)	69	62	27	46	51
Actual enrollment in school as % of capacity (2078)	70	62	49	56	52
<b>School type</b>					
	CEHRD	Diploma	Pre-Diploma	CTEVT	%
<b>Under CTEVT</b>					
Constituent schools				63	6
Technical Education in Community Schools (TECS)				572	52
Partnership				42	4
Private				429	39
<b>Total under CTEVT</b>				<b>1,106</b>	<b>70</b>
Technical Stream in Community Schools (TS)	485				30
All total academic programs				1,591	100
Short term providers				1,355	

School type	CEHRD	Diploma	Pre-Diploma	CTEVT	%
Other ministries					Yet to be collected
Provincial governments					Yet to be collected
<b>Share of current students</b>					
Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
<b>Student number in surveyed schools (2078)</b>	<b>16,262</b>	<b>28,357</b>	<b>10,366</b>	<b>38,723</b>	<b>54,985</b>
% of Girls	41.0	43.6	45.4	42.6	43.1
% of Dalits	12.1	10.1	12.2	12.2	11.1
% of Janajatis	31.7	30.9	31.1	31.4	31.2
% of Madhesis	15.4	16.9	13.5	14.7	15.8

<b>Scholarships - Quota and actual recipients</b>					
Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Scholarship quota (2078)	<b>Free education</b>	<b>4,696</b>	<b>3,798</b>	<b>8,494</b>	
Number of scholarship recipients	As above	3,406	955	4,361	
Scholarship recipients		72.5	25.1	51.3	

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
General education Gross enrolment rate (G9-10)					97.94
TVET Gross enrolment rate (G9-10)	2.71	-	-	-	
General education Net enrolment rate (G9-10)					71.46
TVET Net enrolment rate (G9-10)	1.71	-	-	-	
General education Gross enrolment rate (G11-12)					59.10
TVET Gross enrolment rate (G11-12)					3.57
General education Net enrolment rate (G11-12)					31.50
TVET Net enrolment rate (G11-12)	-	-	-	-	2.16

<b>Performance area: 3.3 Expansion</b>					
Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
<b>Total schools</b>	<b>485</b>			<b>1,106</b>	<b>1,591</b>
Additional Schools(Program) from last year				6(16)	
% of Growth in Schools (2078 compared to 2077)	Zero			0.55	0.38

<b>Performance area: 3.4 Quality</b>			
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>
Schools accreditation	Zero	Zero	Zero
Program accreditation	Zero	Zero	Zero

<b>TVET Models</b>			
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>
School and OJT	x		x
School only	x	x	
Apprenticeship			x
Schools with some kind of workplace exposure		x	

<b>Teacher management</b>			
<b>Indicator</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>
<b>Instructor number</b>			
Average Instructors (without parttime and private)	3.90	5.40	2.40
Average Asst-Instructors (without parttime and private)	2.00	0.60	0.50
Full time instructors	5.90	6.13	2.88
Part time instructors		4.52	1.07
% of part time instructors		45	36
Approved instructors number	7	10	3
% of Deficit instructors	15%	39%	4%
% of Deficit instructors constituent schools		104%	
% of instructors higher than approved			1
% of part time instructors higher than approved		5%	6%
Gender Parity Index in Teachers	0.12	0.73	0.27
<b>Contract type</b>			
Permanent	4	0.71	0.31
Temporary/ service contract	7 (63.6%)	5.42 (88.4%)	2.57 (89.2%)
<b>Instructors' qualification</b>			
% of Instructors with masters' degree	23.20	61.20	15.60
% of Instructors with Bachelors' degree	66.40	22.60	72.70
% of Asst-Instructors with Bachelors' degree	27.30	32.10	8.20
<b>Instructors' training</b>			

<b>Indicator</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>		
% of Instructors with TPD/OSU Training	6.00	1.20	4.30	-	-
% of Instructors with Industry Based/instructional Training	6.00	5.00	28.10	-	-
% of Asst-Instructors with TPD/OSU Training	7.80	1.90	19.20	-	-
% of Asst-Instructors with Industry Based/instructional Training	7.80	28.30	79.50	-	-
<b>Instructors turnover</b>					
Instructors	18.0	22.4	6.8	-	-
Assistant instructors	12.7	5.0	2.8		
<b>Curriculum revision</b>					
% of curriculum revised after 2073 BS	100%	57%	18%	-	-
% of curriculum revised before 2073 BS		43%	82%		
<b>Standards revision</b>					
% of standards revised after 2073 BS				29%	-
% of standards revised before 2073 BS				71%	-

<b>Machine and equipment</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>		
% of Schools with >75% workable machines	61.00	61.00	58.00	-	-
% of Schools with 50-75% workable machines	23.00	13.00	17.00	-	-
% of Schools with <=50% workable machines	16.00	25.00	26.00	-	-

**Performance area: 3.5 Efficiency**

<b>Promotion rate</b>	<b>CEHRD</b>
Promotion Rate to Grade 10	85
Promotion Rate to Grade 11	78
Promotion Rate to Grade 12	61

<b>Cycle Completion and Survival Rate</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
Cycle Completion Rate (%)		52 (2072 intake)	38 (2076 intake)		
Agriculture		44	48		
Engineering		21	26		
Forestry		75			
Health		66	41		
Hospitality		57	54		
Others			19		
Survival Rate (%)		59 (2072 intake)			
Agriculture		69			
Engineering		39			
Forestry		85			
Health		66			
Hospitality		70			
Others					
Survival Rate to Grade 12	57.9 (Year)	-	-	-	

<b>Repetition Rate</b>	<b>CEHRD</b>				
Repetition Rate (First year in CTEVT and first grade in CEHRD)	0.50	-	-	-	-
Repetition Rate (Second year in CTEVT and second grade in CEHRD)	0.30	-	-	-	-
Repetition Rate (Third year in CTEVT and third grade in CEHRD)	0.20	-	-	-	-
Repetition Rate (Fourth grade in CEHRD)	-	-	-	-	-

<b>Drop out rate</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
Dropout Rate (First year in CTEVT and Grade 9 in CEHRD)	-	-	-	-	-
Dropout Rate (Second year in CTEVT and Grade 10 in CEHRD)	14.50	-	0.10	-	-
Dropout Rate (Third year in CTEVT and Grade 11 in CEHRD)	21.70	-	0.80	-	-
Dropout Rate (Grade 12 in CEHRD)	38.80	-	-	-	-

<b>Performance area: 3.6 Outputs</b>					
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
Graduate till 2077.078	16,505	96,227	240,840	#####	353,572
% Long term program graduation Rate			43.1(074/75)		
<b>Instructors' training (upto 2077.78)</b>					
Instructional training graduate				35,264	
Female %				36.6	
Male %				66.4	
Instructors' training (instructional skills)				61.0	
Instructors' training (OSU) %				1.6	
<b>curriculum</b>					
curriculum long term program	11	49	33	82	93
curriculum short term program (CTEVT only)				271	271
<b>Skills standards</b>				<b>304</b>	
Level 4				6 (2%)	
Level 3				41(13%)	
Level 2				92 (30%)	
Level 1				155 (51%)	
Elementry				10 (3%)	
<b>Skills test graduates</b>					
Skills test graduates	-	-	-	#####	387,695
%Skills test graduation rate (2076.77)				73	
<b>Skills test centers</b>					
Accredited skills test centers				61 (8%)	
Unaccredited Skill test centers				700 (92%)	
<b>Skills test human resources</b>				<b>304</b>	
Master assessors				35	
Skill test assessor				7,464	
Model assessors				38	
Assessors with refresher training				510	
<b>Knowledge products (2076)</b>					
Comprehensive TVET annual report					1
TVET development journal				1	
Journal of training and development				1	
Annual report				1	



Performance area: 3.8 Outcomes					
Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Employment rate (2078)	29	66	61		49
Source of employment					
Public					22
Self employed					11
Private/ NGO					55
Foreign employmnet					11

Performance area: 3.7 Relevance					
Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Sector Skills Committees (Agriculture, construction and hospitality)					3
Legal provision for BIAs representation in CTNET bodies					
Assembly				17%	
Council				Zero	
NSTB Board				50%	
School Management Committee				11%	
Share of schools with BI/A in SMC	38.1	-	-	32.0	34.1
Average members in SMC	7.9	-	-	5.7	6.5
Average Business and Industry members in SMC	1 (13%)	-	-	1 (18%)	1.0
Share of schools with support from Business and Industry Associations (BIAs) in OJT/ internship	54.8	-	-	45.8	48.9
Share of schools with BIAs in OJT/ internship/ employment facilitation committee	23.4	-	-	22.8	23.0
Share of schools with BIAs in school operations	21.3	-	-	23.6	22.8
Share of schools with Bis in examination operations	3.0	-	-	19.5	13.8
Share of schools with annual labor market research	10.7	-	-	14.9	13.4

<b>Performance area: 3.9 Integration</b>					
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
<b>Further education (2078)</b>					
Share of Grade 10 graduates continuing grade 11 in general stream	24.8	-	-	-	-
Share of Grade 10 graduates continuing grade 11 in TVET stream	49.4	-	-	-	-
Share of Grade 12 graduates continuing education in general stream	20.4	-	-	-	-
Share of Grade 12 graduates continuing technical education	37.1	-	-	-	-
Share of CTEVT graduates continuing education in general education	-	14.7	14.6	-	-
Share of CTEVT graduates continuing education in technical education	-	22.3	12.0	-	-
Disarray in courses (courses not aligned with each other)	Yes	Yes	Yes	Yes	
<b>Public Service Commission Recognition</b>					
Share of schools with issues on Public service commission recognition	42.1	27.3	36.1	-	34.6
<b>University recognition</b>					
Share of institutes with no issues on recognition from domestic universities (without recognition)	55.3	33.5	60.5	-	47.9
Share of institutes with no issues on recognition from foreign universities (without recognition)	73.2	59.5	76.2	-	68.4

<b>Performance area: 3.10 Management</b>					
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
<b>Physical infrastructure</b>					
Average Number of Buildings for TVET	1.8	-	-	1.6	1.6
Average number of classrooms for TVET	6.3	-	-	6.5	6.4
Share of schools with science lab	86.8	-	-	66.1	73.3
Share of schools with computer lab	85.8	-	-	67.2	73.7
Share of schools with computer lab for TVET	75.6	-	-	59.6	65.2

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Share of schools with internet facility	88.8	-	-	69.6	76.3
Share of schools with electricity facility	89.3	-	-	69.5	76.7
Average hours of electricity supply (hours)	15.9	-	-	15.5	15.6
Share of schools with disability friendly infrastructure for entrance (Ramp)	45.2	-	-	24.7	31.8
Share of schools with toilets for SWD	53.3	-	-	27.4	36.4
Share of schools with sign language interpreter for deaf	5.1	-	-	3.3	3.9
Share of schools with toilets for boys	93.4	-	-	69.9	78.1
Share of schools with girls'-friendly toilets	83.2	-	-	62.9	70.0
Share of schools with drinking water supply system (tap/ tanker)	75.6	-	-	48.8	58.1
Share of schools with water facility in toilets	78.4	-	-	81.9	70.0
Share of schools with 100x50 meters playground	70.1	-	-	54.8	60.1
Share of schools with garden	57.9	-	-	52.0	54.1
Share of schools with compound wall	68.0	-	-	42.3	51.2
<b>Hostel and others</b>					
Share of schools with girls' hostel	16.2	-	-	16.5	16.4
Share of schools with boys' hostel	25.4	-	-	16.0	19.3
Share of schools with hostel for students with disability (SWD)	12.7	-	-	11.8	11.7
<b>School management</b>					
Share of schools with active schools management committee	85.3	-	-	66.4	73.0
Share of schools with females in SMC	84.3	-	-	63.7	70.8
Average female members in SMC	2.3	-	-	1.6	1.9
Share of schools with separate head teacher	5.1	-	-	20.6	15.2
Share of schools with separate program coordinator	62.9	-	-	54.5	57.4
Share of schools with Principal/ head teacher with school management training	56.3	-	-	47.7	50.7
Share of schools with female headteacher/ principal	23.4	20.3	6.4		
Share of schools with staff job description	67.5	-	-	59.1	62.0

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
<b>Student support</b>					
Share of schools with Student Career Counseling Unit (CCU)	34.0	-	-	41.2	38.7
Share of schools with additional support for academically weak students	74.6	-	-	59.1	64.5
Share of school Complaint handling system	75.6	-	-	58.5	64.5
<b>Employment facilitation</b>					
Share of schools organizing skills competition	35.0	-	-	31.2	32.5
Share of schools organizing employment market	6.6	-	-	11.9	10.1
Share of schools with graduate support for employment	42.6	-	-	41.7	42.0
Share of schools with graduate support for self -employment	49.7	-	-	46.6	47.7
Share of schools with Business Incubation Center	11.2	-	-	11.9	11.7
Share of schools with tracer study system	20.3	-	-	32.2	28.1
<b>Communication</b>					
Share of school with citizen charter	28.9	-	-	41.7	37.3
Share of school with Information Box	79.7	-	-	65.6	70.5
<b>School income</b>					
Share of schools with production unit	14.7	-	-	16.5	15.9
Share of schools with sales outlets	6.6	-	-	7.6	7.2
Share of schools with School Fund	58.4	-	-	51.2	53.7
Share of schools with Repair and maintenance Fund	34.5	-	-	40.1	38.2
<b>MIS</b>					
Share of schools with TVET MIS	22.3	-	-	24.4	23.7
Share of schools with Financial MIS	23.4	-	-	30.4	27.9
<b>Audit</b>					
Share of schools with social audit	38.1	-	-	32.0	34.1
Share of schools with financial audit	86.8	-	-	65.6	73.0
<b>Others</b>					
Share of schools with cafeteria	65.5	-	-	50.4	55.7
Share of schools with First Aid facility	76.6	-	-	63.1	67.8

<b>Performance area: 3.11 Coordination</b>					
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
Share of schools with coordination with federal level	70.6	-	-	57.2	61.8
Share of schools with coordination with provincial level	59.4	-	-	10.6	27.6
Share of schools with coordination with local level	87.3	-	-	63.4	71.1
Share of schools with coordination with business and industry	41.1	-	-	37.1	38.5

<b>Performance area: 3.12 Governance</b>					
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
CTEVT Act 2045				Exists	
Bagmati Province TVET Act					Exists
Gandaki Province TVET Act					Exists
National Education Policy 2076 (TVET)					Exists

<b>Performance area: 3.13 Finance</b>					
<b>Indicators</b>	<b>CEHRD</b>	<b>Diploma</b>	<b>Pre-Diploma</b>	<b>CTEVT</b>	<b>Nepal</b>
<b>Budget</b>					
% Education budget share of National Budget					11.0
% TVET budget share of Education Budget (2078)					4.0
% CTEVT budget share of TVET Budget (2078)					50.0
% CEHRD budget share of TVET Budget (2078)					20.0
One time contribuion (per school annually)	4,000,000				
OJT expenses (per student after 3rd year completion - one time)	15,000				
Share of foreign assistant (2078)	3%			18%	

<b>Program fee - CTEVT</b>			
Discounted		68,846	7,627
Full fee (CTEVT)		177,179	22,100
Sponsored		308,109	
Technical educaiton in community schools (TECS)		200,000	70,000
Private schools		352,800	110,000

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
<b>Student/ parents actual contribution (2078)</b>					
Parents' contribution (not the fee)	66,404				
Average student fee		197,262	57,264		
<b>Audit practices</b>					
Share of schools with social audit	38.8			32.0	34.1
Share of schools with financial audit	86.6			65.5	73.0

**Performance area: 3.14  
Monitoring and evaluation**

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Share of schools with federal level M&E	45.2	-	-	50.9	48.9
Share of schools with provincial level M&E	43.1	-	-	59.6	53.9
Share of schools with local level M&E	85.3	-	-	56.1	66.3
Share of schools with BI's technical M&E	23.4	-	-	20.6	21.6

**Performance area: 3.15  
Knowledge management**

Indicators	CEHRD	Diploma	Pre-Diploma	CTEVT	Nepal
Share of schools with communication mechanism	49.2	-	-	45.5	46.8
Share of schools with learning exchange meetings	46.7	-	-	41.5	43.3

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## Annex 2: TVET sector, Strengths, Weaknesses, Opportunities and Threats (SWOT)<sup>2</sup>

Strengths	Weaknesses
<p><b>Access:</b> Distribution of schools by province and local levels is evidence of Government commitment on enhancing access to, and inclusion and equity in TVET. Free Technical stream and various scholarship provisions under CTEVT programs are other examples this commitment.</p>	<p><b>Access</b> Access is nearly met but instructional learning environment (ILE) as explained by 'Efficiency indicators' is weak. It undermines the efforts put on expansion so far.</p>
	<p>The sector is mainly focused on engineering, agriculture and health programs. Very few opportunities are explored in other sectors in view of both access and expansion.</p>
<p><b>Expansion:</b> Government vision to open one CTEVT approved school in each local level is very strong indication of government commitment.</p>	<p><b>Expansion:</b> Tendency is to establish schools by mapping with purpose to fill in the gap. The right approach is to follow TVET principles that pleads for demand-based service delivery with business and industry/economic sectors linkage. However, this requirement appears to have overlooked in the recent times.</p>
<p><b>Quality:</b> CTEVT has a proven system and output for quality assurance which include standards and curriculum development methods, skills testing system, instructors' training and assessment/examination system. Some of its schools are state-of-art in terms of the physical infrastructure such as land, machine and equipment and other physical infrastructure with highly experienced instructors and good teaching learning environment. These strengths are reflected in their quality outputs. These schools have recognition and reputation in the business and industry community.</p>	<p><b>Quality:</b></p> <ul style="list-style-type: none"> <li>• Application part of quality is weak in the whole sector. This study has evidence that schools suffer due to lack of revision in standards and curriculum, limited or no textbooks and instructional-learning-materials (ILM), insufficient number of instructors and their worrisome turnover, limited instructional and occupational skills upgrading, and limited workplace-based training opportunity, and insufficient number of workable machine and equipment.</li> <li>• Many schools/instructors have limited idea on how the partnership with Business and industry and its associations (BIAs) can enhance quality of delivery.</li> </ul>
<p><b>Efficiency:</b> CTEVT promotion rate is good as it has low drop out and almost no repetition rate.</p>	<p><b>Efficiency:</b> Promotion, and survival rates are weak in Technical stream. Pre/Diploma suffers from weak Cycle completion and survival rates.</p>
<p><b>Outputs:</b> TVET system has prepared large number Pre/Diploma and intermediate level graduates as well as skills testing graduates up to level four. It has also quite good number of standards and curriculum. The country has also provided large number of short-term training opportunities.</p>	<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Although the graduates' number is high, the expert workers from other countries occupying the high skills jobs in the country.</li> <li>• No work in preparation of Advance Diploma level graduates who probably will be in NVQ level 5 is done yet. This is not even properly visualized.</li> </ul>

<sup>2</sup> TVET Sector Analysis Report (TVET SAR), 2022.

	<ul style="list-style-type: none"> <li>• Most of the short-term training are stand-alone and can even be argued to be suffering from low quality.</li> <li>• In absence of data, their number is measured through skills test data as its proxy indicators.</li> </ul>
<p><b>Outcomes/ relevance:</b> The TVET sector outputs such as standards and curriculum have facilitated both long- and short-term education and training across the country. It has also trained instructors who, in turn, work to prepare graduates. It has a proven Skills Testing System which has been catered through various un/ accredited assessment centers. CTEVT has culture of partnering with business and industry that enhance opportunity for on-the-job-training (OJT) and employment.</p>	<p><b>Outcomes/relevance:</b> This study has found employment rate of Pre/Diploma somewhat satisfactory but not that of Technical stream. These employment rates, particularly with Technical stream, only undermine the efforts and investments made for the sector.</p>
<p><b>Finance:</b> International development partners have been supporting the sector, oftentimes through grant support. The sector has also benefited from technical expertise inputs from such sources.</p>	<p><b>Finance:</b> Government allocation for the sector has remained around 4% of education budget which, given country's vision to increase enrolment up to 70%, is very low. Also, as seen in the past, international support, except for support for infrastructure, human resources and system development, has mostly gone into short-term training whose returns are difficult to realize. Rather over supply of such training without considering employment outcome has recently been widely criticized and therefore, undermine the precious resources the government and international development partners have put into.</p>
<p>Private sector investment in TVET is substantial and have tendency to grow.</p>	<p>Private sector has yet to get both financial and non-financial incentives to encourage their productive engagement in TVET also in areas such as participation in school management, monitoring and evaluation and availing OJT and employment placement support. This is essential for encouraging further investment that could reduce public sector burden. Instead, there is trust deficit between the public and private sector.</p> <p>Notwithstanding the level efforts they have to make to prepare satisfactory outputs, private sector schools' fee is considered high than public sector. Oftentimes it becomes issue.</p>
<p><b>Governance:</b> As mentioned above, Nepal has strong statutory provision (CTVET Act 2045) in place.</p>	<p><b>Governance:</b></p> <ul style="list-style-type: none"> <li>• No federal TVET Act is in place as yet. It has affected the legislative process at provincial level. This gap has made the provincial level work almost defunct.</li> <li>• As shown by membership in the CTEVT Assembly, its Council and School Management Committees, representation of Business and Industry is weak and mostly only ceremonial. Even the three Sector Skills Councils are not statutorily established and operate under the</li> </ul>



	<p>wishes of CTEVT, not as demanded by employment market.</p> <ul style="list-style-type: none"> <li>This is the reason why their participation has remained ceremonial and also, unable to reflect their needs in the TVET system and eventually prepare the workforce competent enough for business and industry itself.</li> </ul>
Opportunities	Threat
<p><b>Quality elements:</b> Massive scope exists for utilizing CTEVT's expertise and experience in standards and curriculum development, skills testing/ RPL, instructors' training necessary for enhancing the sector performance.</p> <p>Nepal could, through strengthening TITI, expand its services in other countries, which could also be excellent source of foreign exchange and also enormous learning opportunity for domestic TVET professionals.</p>	<p>Understanding that TVET is second option and/ or it is for weak students undermines the potential of TVET. This could be one reason for continued reduction in student enrolment number particularly in the recent times.</p> <p>Understanding that TVET only provides training in technical subject has shadowed other many vocational subjects which could also provide better learning opportunity, which in turn, could facilitate employment for students/ learners.</p>
<p><b>Outputs and outcomes:</b> Through NVQS driven reform, the sector could produce high number of graduates at various levels. It also includes short term training graduates prepared from the credit-based modular courses interwoven with long-term curricula. It could support economically weak students as such curricula could open multiple exit and entry points to and from the world of work.</p>	<p>Due to business and industries reluctance to involve in TVET, graduates' employment opportunity has been shrinking.</p>
<p><b>Operationalization of NVQS:</b> CTEVT and NSTB have substantial experience in curriculum development and implementation. What remains is developing new curriculum following measures to address the weaknesses explained above. This can be done through rapid implementation of reform oriented NVQS.</p>	<p>The reluctance of educationists and policy makers to operationalize the NVQS has been the biggest threat for sector development.</p>
<p><b>Integration:</b> Nepal requires expert workers, managers and researchers in TVET. Preparation of this workforce is possible through vertical expansion of TVET opportunities, which in turn, will require speedy operationalization of NVQS as explained above. This could also address issues related to recognition and limited or no further educational pathways for graduates.</p>	<p>In absence of integration, students might drop out from education system and even pursue foreign migration which mean syphoning off of resources. This also mean both physical and brain drain.</p>
<p><b>Coordination/ synergy:</b> Through enactment of federal TVET Act, and putting policy and reform plan in place, there is a big opportunity to reform the sector. Provinces and local levels who have now resources, could support implementation of statutory provisions and implementation of plans.</p>	<p><b>Coordination/ synergy:</b></p> <ul style="list-style-type: none"> <li>In absence of umbrella TVET Act, the sector appears to be even more fragmented. This as problem continues at the federal level and has emerged at provincial level as well. All provinces apparently have intention to develop their own Act, policies and plans.</li> </ul>

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- Moreover, in absence of good coordination and technical support, implementation of both long- and short-term training programs at the local level are reportedly less market responsive. This fact has been also proved by data from this study.
  - In summary, unless corrective/ supportive measures are in place, the sector fragmentation may drop to the worst level.
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## **Annex 3: Lessons learned <sup>3</sup>**

### **3.1 Abundant expansion**

Data in the chapters on access and expansion suggest that opening new schools and expanding access are insufficient to make the TVET outputs market responsive. Such measures are only suitable for making investments while already knowing that these investments will not bring expected results. Therefore, other strategies such as mergers or expanding scholarships to study in already existing schools/ programs will be helpful in enhancing access and inclusion than establishing new schools.

### **3.2 Market relevance**

All the Technical stream and Pre/Diploma courses appear to have been approved either by CEHRD or CTEVT and were based on needs of the time/ presumably market when these schools were established or decided to start the programs. Since then, these courses have been offered by public or private agencies alike notwithstanding the demands for related graduates. Unless they are approved to start new courses, once they are permitted to operate, even private sector schools keep on offering the same course. This is perhaps one of the reasons for low efficiency and outcomes and suggests inefficiency in the sector is more due to policy decisions than management level deficiency.

### **3.3 Workplace-based training (WBT) provision in the curriculum**

WBT models such as on-the-job training (OJT) are not new in the sector. Therefore, in Pre-Diploma curricula and Technical stream, though not initially, is now provisioned. In Diploma, though not specifically under the OJT nomenclature, various modes of WBT models are provisioned. But the question is whether these models are implemented as provisioned in the curricula and if done so, how purposefully and seriously they are done. Yet, during many exchanges with school headteacher/ principals, they explained their difficulty that often, employers do not cooperate, and others, they do not have resources to support students during OJT. Even NRs. 15,000 per student allocated for Technical stream was insufficient for a one-year long OJT, which needs to be availed after completing of Grade 12. Unless statutory provisions enforce at least the public sector agencies to allow such opportunity, this problem may remain. Also, the end-of-course OJT in TVET steam has not been practical as OJT needs to move by semester/ or at least by year allowing students to finetune their skills learned while they were still in school. Similarly, unclear OJT provisions in the Diploma curriculum have been reason for them to be ineffective as implementation of this provision has remained at the discretion of school management or related instructors.

### **3.4 Formative assessment**

Various indicators under the efficiency chapter have shown a serious need to put a quality instructional learning environment (ILE) in place. One way of achieving this is by enhancing students' learning outcomes, which is possible through lean but effective formative assessment focused on regular measurement of learners' learning outcomes.

### **3.5 Incentives for instructors**

Schools appear to have a focus, at the most, on practical training limited to learning purposes. However, TVET schools must target services by establishing market linkage. Proven

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<sup>3</sup> TVET Sector Analysis Report (TVET SAR), 2022.

evidences suggest that income from such arrangements could avail financial incentives to both students and instructors.

### **3.6 TVET outcomes**

Unless graduates of various TVET programs are able to secure employment, the investment made in them cannot be justified. Therefore, schools/ parents/ students must be oriented to these outcomes from the beginning of the program. Unless, it is done so, TVET programs, as have generally been in the past, will not be different from general education.

### **3.7 Support for CEHRD**

The government has been investing a huge amount of resources in the Technical stream, but its efficiency is questionable. Therefore, an intensive focus is required to improve its performance through reform in curricula, teacher training and improvement in machine and equipment. Unless a concerted effort in place, problems in the Technical stream will remain. It is difficult to understand the factor that bars mobilizing its proven competences in research, curriculum development, instructor's development, for instance for reforming CEHRD TVET efforts.

### **3.8 Quality assurance body**

CTEVT with over three decades of experience, which, albeit with some limitations, has enriched it with expertise in research, standards and curriculum development, skills testing, and instructor's development and assessment. With implementation of NVQS for several years now has understanding in how TVET system can be reformed. Therefore, CTEVT, as also provisioned in the governments' budget speech 2077/78, could be developed as a quality assurance body. Albeit need for overall curriculum reform, apparently, there is no reason why Technical stream schools should not follow the CTEVT curriculum or use the instructors' training resources it has. Therefore, unless effective collaboration exists between these two institutions, putting effort to improve these elements at the Technical stream will only 'reinvent the wheels.'

### **3.9 Operationalizing NVQS**

TVET is wrongly conceived as a second option or a strategy to keep weak students in education so that they can engage in employment. However, as shown by this study, the TVET graduates have tendency to pursue further education. As informed by workshop participants when parents and students realize a narrow academic path after current TVET qualification levels, they leave their studies as early as Grade 10 and return to general education in Grade 11. Similarly, lack of recognition and further educational opportunity have affected enrollment in Pre-Diploma and Diploma programs. Therefore, it has been urgent to operationalize NVQS to facilitate a seamless academic path while also enhancing employment opportunity. There are no reason why technically competent people have to be certified and recognized by people who do not understand these critical elements of education<sup>4</sup>.

### **3.10 Expansion of apprenticeship program**

Butwal Training Institute has been offering TVET programs through apprenticeship model of implementation for many years now. CTEVT has also started this model in Pre-Diploma level. So far there have been very encouraging outcomes and also and so have been the responses

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<sup>4</sup> Pradhan, H. 2019. *Struggle for Development and Operationalization of NVQS in Nepal. Progress and Pitfalls in Nepal TVET (Chapter from Book in progress).*

of Business and Industries. Therefore, this implementation model needs to be considered in Technical stream and Diploma programs as well.

### **3.11 Unlearning the lessons learned**

As explained earlier, government and international development partners have poured in the resources for learners' competency development and for long. During these years, plethora of policy and system failures have been researched, documented and widely realized. Still, with purpose to reform the sector, no comprehensive plan connecting the dots has been put in place as yet.

#### Annex 4: List of people consulted

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34	Pratikshya Pandey	Logistic Supporter	CPPD	9869098857	pandeypratikshya99@gmail.com
35	Khagendra Prasad Adhikari	Vice Chairperson	CTEVT	9851073052	khagenadhi@gmail.com

#### 4.4 Centre for Education and Human Resource Development

मिति: २०७९ ०४ ०५ गते (July 21, 2022)

S.N.	Name	Designation	Organization	Phone number	Email
1	Choodamani Paudel	DG	CEHRD	9851115904	paudelcm@gmail.com
2	Hari Prasad Lamsal	Joint Secretary	MoEST	9851115902	
3	Kamal Prasad Pokhrel	Joint Secretary	MoEST	9849362062	pokhrelk@gmail.com
4	Kul Bahadur Phadera	Under Secretary	MoEST	9841503511	kbphadera@gmail.com
5	Dilli Ram Luintel	DDG	CEHRD	9851255638	drkanyam@gmail.com
6	Keshab Prasad Dahal	Administrative Chief	TSC	9851111472	keshabprasad.dahal@gmail.com
7	Madhav Prasad Dahal	Director	CEHRD	9841364756	dahalmp66@gmail.com
8	Sudarshan Marahatta	Under Secretary	TSC	9841396718	marahattas123@yahoo.com
9	Renuka Pandey	Under Secretary	TSC	9841420031	renukapandey06@gmail.com
10	Sangita Regmi	Under Secretary	TSC	9841297631	regmi-5@hotmail.com
11	Suresh Kumar Joshi	Director	CEHRD	9831355515	jpshi511@yahoo.com
12	Arjun Dhakal	Director	CEHRD	9846278754	arjundhakal52@yahoo.com
13	Ramchandra Sharma	Director	CEHRD	9849628615	timilsinaramchandra@gmail.com
14	Chandra Prasad Sharma	Section Officer	CEHRD	9851065926	chandrasharama913@gmail.com
15	Ishwor Prasad Sharma	Under Secretary	MoEST	9851731280	ishwarkaphle@gmail.com
16	Binod Gelal	Under Secretary	CEHRD	9851227984	gelalbinodgelal@yahoo.com
17	Ramesh Prasad Mainali	Unit Chief	EDCU	9840780316	mainalyrpe@gmail.com
18	Mahendra Bahadur Chhetri	Chief Education Deputy	Lalitpur Metropolitan City	9843643322	mahendrakshetri@yahoo.com
19	Nanda Lal Paudel	Unit Chief	EDCU, Kathmandu	9851201285	nandapaudel@yahoo.com
20	Ram Prasad Subedi	Education Officer	KMC	9841329059	rpsubedi191@gmail.com
21	Krishna Prasad Sharma	Controller	NEB	9841373803	nebkrishna@gmail.com
22	Kewali Ram Adhikari	Under Secretary	EVENT-II	9842050673	k2023adhikari@gmail.com
23	Tej Prasad Prasai	Under Secretary	MoEST	9841743414	tejprakashprasai20@gmail.com
24	Binod Bhattarai	Assistant Director	University Grant Commission	9851187601	b.bhattarai@ugenepal.edu.np

S.N.	Name	Designation	Organization	Phone number	Email
25	Dhana Giri	Samabini	Madyapur Education	9847838230	dhanag367@gmail.com
26	Jaya Prasad Acharya	Under Secretary	MoEST	9841429703	acharyajayaprasad@gmail.com
27	Rudra Prasad Adhikari	DDG	CEHRD	9849930143	rudrap@hotmail.com
28	Shree Prasad Bhattarai	DDG	CEHRD	9841506161	shreepdb101@gmail.com
29	Divya Dawadi	Director	CEHRD	9862702429	divyadawadi@gmail.com
30	Ganesh Prasad Dhakal	Unit Chief	EDCU, Lalitpur	9851190284	dhakalg2002@yahoo.com
31	Subhash Dhakal	IT Director	MoEST	9851092929	subhash.dhakal@nepal.gov.np
32	Nilkantha Dhakal	Director	CEHRD	9856052484	nkdhakal@yahoo.com
33	Girman Thapa	Director	CEHRD	9841390654	thapagirman@yahoo.com
34	Bhuvaneswar Dhungana	Director	CTEVT	9856038235	bhuvaneshor@gmail.com
35	Deepak Babu Aryal	Deputy Director	CTEVT/Planning Division	9841238310	dbaryal2000@gmail.com
36	Chandra Kanta Bhusal	PD	EVENT Project-II	9851353741	ckbhusal033@gmail.com
37	Shiva Ram Shrestha	Finance Officer	CTEVT	9851101416	shivaramshrestha@gmail.com
38	Shalik Ram Bhusal	Director	CDC	9860922325	shalikargha@gmail.com
39	Tilak Ram Paudel	OA	CEHRD	9860721688	
40	Dipak Bhandari	Section Officer	MoEST	9857064058	dpkbhandari39@gmail.com
41	John Mountford	Team Leader	Dakchyata		-
42	Rajendra Shrestha	DTL	Dakchyata	9851201973	rajendrashresthabritishcouncil.org.np
43	Kul Bahadur Phadera	US	MoEST		kbphadera@gmail.com
44	Dr Hari Pradhan	Team Leader	British Council		drharipradhan@gmail.com
45	Roshan Ghimire	Project Manager	CPPD		rosh.ghimire@gmail.com
46	Rajendra Prasad Adhikari		CPPD	9851038784	adhikari_rajendra@outlook.com
47	Bishal Chalise	Economist	CPPD	9851272555	bishalkcchalise@gmail.com
48	Sita Paudel	GESI expert	CPPD		sitapaudel@gmail.com
49	Chuman Babu Shrestha	Planning expert	CPPD		chumanbabus@gmail.com
50	Nijendra Pratap Shrestha	Documentation Officer	CPPD		shresthanijendra@gmail.com

**4.5 Inter Ministries Workshop**

मिति: २०७९०४२५ गते, बुधबार (August 10, 2022)

S.N.	Name	Designation	Organization	Phone number	Email
1	Ram Krishna Subedi	Secretary	MoEST		
2	Kamal Prasad Pokhrel	Joint Secretary	MoEST		
3	Deepak Sharma	Joint Secretary	MoEST		
4	Hari Prasad Lamsal	Joint Secretary	MoEST	9851115902	lamsalhp@hotmail.com
5	Bhagawan Aryal	Joint Secretary	MoEST	9851122833	
6	Kul Bahadur Phadera	Under Secretary	MoEST	9845369402	
7	Mukesh Kumar Kesari	Director	Department of Immigration	9851181213	Mukesh525@gmail.com
8	Nagendra Prasad Dahal	Section Officer	MoEST	9851240538	dahalnagendraprasad@gmail.com
9	Dipak Bhandari	Section Officer	MoEST	9857064058	dpkbhandari39@gmail.com
10	Rekha Pandey	Under Secretary	Ministry of Communication and Information Technology	9841712791	Linakc.ramkod@gmail.com
11	Uttam Babu Bhattarai	Director	Nepal Mountain Academy	9851032688	uttamjee@gmail.com
12	Manju Kumari Pokharel	Section Officer	Ministry of Law, Justice and Parliamentary affairs	9851139453	Manjuk.pokharel@g,ail.com
13	Prakash Thapa	Under Secretary	Ministry of Forests and Environment	9849010358	Prakash.thapa013@gmail.com
14	Mahendra Kumar Sapkota	Under Secretary	Ministry of Federal Affairs and General Administration	9841219987	mksapkota7@gmail.com
15	Dr. Krishna Bahadur Ghimire	Under Secretary	Ministry of youth and sports	9843632477	
16					ghimire.krishna@gmail.com
17	Laxmi Kumar Khadka	Under Secretary	MoEST	9851089362	Khadka011@gmail.com

S.N.	Name	Designation	Organization	Phone number	Email
18	Debaka Dhakal	Section Officer	MoEST	9851156054	dwdhakal@gmail.com
19	Suman Salika		Ministry of Urban Development	9841923660	sumansalike@gmail.com
20	Dipak Babu Aryal	Deputy-Director	CTEVT	9851038310	dbaryal2000@gmail.com
21	Bishnu Kumari Adhikari	Section Officer	Ministry of foreign affairs	9841981231	Adhikary.bishnu@gmail.com
22	Suresh Kumar Joshi	Director	CEHRD	9841355515	Joshi511@yahoo.com
23	Kewaliram Adhikari	Under Secretary	EVENT-II	9842050673	K2023adhikari@gmail.com
24	Basu Dev Osti	Under Secretary	National Planning Commission	9841549952	basuosti@gmail.com
25	Dr. Hari Pradhan	Team Leader	British Council		
26	Rajendra Prasad Adhikari		CPPD	9851038784	
27	Chuman Babu Shrestha	TVET planning Expert	CPPD	9841217590	chumanbabus@gmal.com
28	Sita Paudel	GESI Expert	CPPD	9851187688	
29	Roshan Ghimire	Project Manager	CPPD	9851204309	rosh.ghimire@gmail.com
30	Nijendra Pratap Shrestha	Documentation Officer	CPPD	9851172305	
31	Suzana Kansakar	Project Support	CPPD	9841993433	Suzi.ya@gmail.com
32	Pratikshya Pandey	Logistic Support	CPPD	9869098857	Pandeypratikshya99@gmail.com
33	Parbat Gadaili	Reporter	Rojgar Media Pvt. Ltd.	9840985801	parbatboo@gmail.com

**4.6 Workshop with Business and Industry**

मिति: २०७९०४२६ गते, बिहीवार (August 11, 2022)

S.N.	Name	Designation	Organization	Phone number	Email
1	Ram Krishna Subedi	Secretary	MoEST		
2	Kamal Prasad Pokhrel	Joint Secretary	MoEST		
3	Deepak Sharma	Joint Secretary	MoEST		
4	Hari Prasad Lamsal	Joint Secretary	MoEST	9851115902	lamsalhp@hotmail.com
5	Bhagawan Aryal	Joint Secretary	MoEST	9851122833	
6	Kul Bahadur Phadera	Under Secretary	MoEST	9845369402	
7	Mukesh Kumar Kesari	Director	Department of Immigration	9851181213	Mukesh525@gmail.com
8	Nagendra Prasad Dahal	Section Officer	MoEST	9851240538	dahalnagendraprasad@gmail.com
9	Dipak Bhandari	Section Officer	MoEST	9857064058	dpkbhandari39@gmail.com
10	Rekha Pandey	Under Secretary	Ministry of Communication and Information Technology	9841712791	Linakc.ramkod@gmail.com
11	Uttam Babu Bhattarai	Director	Nepal Mountain Academy	9851032688	uttamjee@gmail.com
12	Manju Kumari Pokharel	Section Officer	Ministry of Law, Justice and Parliamentary affairs	9851139453	Manjuk.pokharel@g,ail.com
13	Prakash Thapa	Under Secretary	Ministry of Forests and Environment	9849010358	Prakash.thapa013@gmail.com
14	Mahendra Kumar Sapkota	Under Secretary	Ministry of Federal Affairs and General Administration	9841219987	mksapkota7@gmail.com
15	Dr. Krishna Bahadur Ghimire	Under Secretary	Ministry of youth and sports	9843632477	
16					ghimire.krishna@gmail.com
17	Laxmi Kumar Khadka	Under Secretary	MoEST	9851089362	Khadka011@gmail.com



S.N.	Name	Designation	Organization	Phone number	Email
18	Debaka Dhakal	Section Officer	MoEST	9851156054	dwdhakal@gmail.com
19	Suman Salika		Ministry of Urban Development	9841923660	sumansalike@gmail.com
20	Dipak Babu Aryal	Deputy-Director	CTEVT	9851038310	dbaryal2000@gmail.com
21	Bishnu Kumari Adhikari	Section Officer	Ministry of foreign affairs	9841981231	Adhikary.bishnu@gmail.com
22	Suresh Kumar Joshi	Director	CEHRD	9841355515	Joshi511@yahoo.com
23	Kewaliram Adhikari	Under Secretary	EVENT-II	9842050673	K2023adhikari@gmail.com
24	Basu Dev Osti	Under Secretary	National Planning Commission	9841549952	basuosti@gmail.com
25	Dr. Hari Pradhan	Team Leader	British Council		
26	Rajendra Prasad Adhikari	Governance expert	CPPD	9851038784	
27	Chuman Babu Shrestha	TVET planning Expert	CPPD	9841217590	chumanbabus@gmal.com
28	Sita Paudel	GESI Expert	CPPD	9851187688	
29	Roshan Ghimire	Project Manager	CPPD	9851204309	rosh.ghimire@gmail.com
30	Nijendra Pratap Shrestha	Documentation Officer	CPPD	9851172305	
31	Suzana Kansakar	Project Support	CPPD	9841993433	Suzi.ya@gmail.com
32	Pratikshya Pandey	Logistic Support	CPPD	9869098857	Pandeypratikshya99@gmail.com
33	Parbat Gadaili	Reporter	Rojgar Media Pvt. Ltd.	9840985801	parbatboo@gmail.com
34	Amira Chaudhary	Support Staff	MoEST		
35	Dhana K.C	Non-Gazet	MoEST		
36	Padma Dhakal	office Assisat	MoEST		

**4.7 List of Workshop Participants in Province 1 मिति: २०७९ ०४ २९ र ३० गते (August 14-15, 20 22)**

SN	Name	Designation	Organization
1	Ho. Rajan Rai	Minister	Ministry of Social Development, Province 1
2	Ho. Bishnu Tumbahamphe	State Minister	Ministry of Social Development, Province 1
3	Dirgha Raj Mainali	Secretary	Ministry of Social Development, Province 1
4	Ho. Sarita Thapa	Province Assembly	Ministry of Social Development, Province 1
5	Ho. Ram Chandra Limbu	Province Assembly	Ministry of Social Development, Province 1
6	Ho. Laxman Tiwari	Province Assembly	Ministry of Social Development, Province 1
7	Ho. Niran Rai	Province Assembly	Ministry of Social Development, Province 1
8	Ram Chandra Limbu	Province Assembly	Ministry of Social Development, Province 1
9	Bhupendra Kumar Lawati	Mayor	Letang Municipality, Morang
10	Regina Bhattarai Prasai	Deputy Mayor	Damak Municipality
11	Ramesh K Shah	Section Officer	Dharan Sub Metro Politian
12	Krishna Prasad Pokhrel	Under Secretary	Ministry of Social Development
13	Navraj Koirala	Director	Council for Technical Education and Vocational Training, Itahari
14	Yogeshwor Bhattarai	Unit Chief	Education Development and Coordination Unit, Taplejung
15	Lal Bahadur Bista	Technical Coordinator	Education Development and Coordination Unit, Sankhuwasabha
16	Semanta Gautam	Unit Chief	Education Development and Coordination Unit, Taplejung, Khotang
17	Tanka Prasad Gautam	Unit Chief	Education Development and Coordination Unit, Taplejung, Morang
18	Raj Kumar B.K.	Unit Chief	Education Development and Coordination Unit, Taplejung, Jhapa
19	Netra Prasad Gajurel	Unit Chief	Education Development and Coordination Unit, Taplejung, Okhaldhunga
20	Rajendra Budhathoki	Director	Education Directorate Development, Dhankuta
21	Parshuram Rai	Deputy Director	Council for Technical Education and Vocational Training, Itahari
22	Deepak Khanal	Principal	Ratna Kumar Bantawa Polytechnic Institute, Ilam
23	Manju Ghimire	Principal	Okhaldhunga School of Health Science, Okhaldhunga
24	Dam Kumar Kunwar	Principal	Bhanu Secondary School, Jhapa
25	Amrit Bahadur Karkee	Principal	Sharadha Secondary School, Sankhuwasabha
26	Gagan Shrestha	Principal	Shree Secondary School, Udayapur

SN	Name	Designation	Organization
27	Medini Ghimire	Principal	Mahendra Secondary School, Sankhuwasabha
28	Sitaram Rai	Principal	Diktel Technical, Khotang
29	Tek Narayan Shah	Principal	Shree Janata Secondary School, Morang
30	Rekraj Pokhrel	Principal	Shree Saraswoti Secondary School, Illam
31	Dhan Kumar Chongbang	Principal	Shree Narayani Secondary School, Taplejung
32	Bishal Kumar Roy	Civil Engineer Teacher	Birat Bahira Secondary School
33	Suresh Malla Thakuri	Civil Engineering Coordinator	Mahendrodya Secondary School, Khotang
34	Mitra Prasad Ghimire	Parents	Janata Secondary School, Morang
35	Ganesh Dahal	Coordinator	Sailaja Acarhya Memorial Polytechnic Institute, Itahari
36	Diwas Khadka	Students	Janata Secondary School, Morang
37	Rabindra Kumar Pandit	Section Officer	Rangeli Municipality, Morang
38	Krishna Raj Rai	Under Secretary	Letang Municipality, Morang
39	Chandra Upadhaya	Assistant Professor	Mahendra Morang Campus
40	Suraj Raj Ghimire	Training Chief	Education Training Center, Sunsari
41	Prabin Khadka	Section Officer	Damak Municipality, Jhapa
42	Bijaya Hari Sharma	Director General	Confederation of Nepalese Industries
43	Durga Prasad Khatiwada	Under Secretary	Biratnagar Metropolitan
44	Gopal Prasad Dahal	Section Officer	Ministry of Social Development, Province 1
45	Lila Ballav Ghimire	President	Federation of Nepali Journalist, Province 1
46	Prem Kumar Thaha	House Wife	Returning Migrant
47	Sita Karki	House Wife	Returning Migrant
48	Chandra Bahadur Basnet	Parents	Returning Migrant
49	Dev Narayan Chaudhary	Program Officer	Sami/ Helvetas Nepal
50	Shrawan Dhimi	District Chair Person	Migrant Right Network Community
51	Sanjib Kumar Rai	Province Manager	ENSSURE/Helvetas
52	Krishna Shah	Board member	Nepal Tourism Board

**4.8 List of Workshop Participants in Bagmati Province** मिति: २०७९ ०४ ०९ र १४ गते (July 29-30, 2022)

SN	Name	Designation	Organization
1	Ho. Kumari Moktan	Minister	Ministry of Social Development Bagmati
2	Ho. Saraswoti Bati	Parliament Member	Parliament Member, Bagmati
3	Ho. Goma Bhurtel	Parliament Member	Parliament Member, Bagmati
4	Ho. Maina Achami	Parliament Member	Parliament Member, Bagmati
5	Ho. Keshav Prasad Pokhrel	Parliament Member	Parliament Member, Bagmati
6	Ho. Dawa Dorje Lama	Parliament Member	Parliament Member, Bagmati
7	Ho. Prakash Shrestha	Province Member	Province Assembly, Bagmati
8	Ho. Bijaya Shrestha K.C	Province Member	Province Assembly, Bagmati
9	Ho. Krishna Hari Khadka	Secretary	Province Assembly, Bagmati
10	Bhimsen Khatri	Province Member	Province Assembly, Bagmati
11	Ashok Byanju Shrestha	Mayor	Dhulikhel Municipality
12	Sarita Bhattarai	Deputy Mayor	Surya Binayak Municipality
13	Hari Prasad Lamsal	Joint Secretary	Ministry of Education, Science and Technology
14	Bijaya Raj Subedi	Under secretary	Ministry of Education, Science and Technology
15	Dipak Bhandari	Section Officer	Ministry of Education, Science and Technology
16	Shree Krishna Nepal	Secretary	Ministry of Social Development Bagmati
17	Kamal Prasad Pokhrel	Joint Secretary	Ministry of Education, Science and Technology
18	Bishwo Babu Pudasaini	Province secretary	Ministry of industry Commerce and Supply
19	Krishna Prasad Dangal	Principal	Shree Mahendrodaya M.V Sindhupalanchowk
20	Sushil Adhikari	Principal	Technical Training and Research Institute, Lalitpur
21	Er. Umesh Aryal	Principal	Thaha Polytechnic Institute, Makawanpur
22	Nirmal Kumar Ghimire	Unit Chief	Education Development and Coordination Unit, Sindhuli
23	Ganesh Prasad Dhakal	Unit Chief	Education Development and Coordination Unit, Lalitpur
24	Rudra Hari Bhandari	Director	Ministry of Social Development, Bagmati
25	Nanda Lal Paudel	Unit Chief	Education Development and Coordination Unit, Kathmandu
26	Sheshkanta Paudel	Section Officer	Lalitpur Metropolitan City

SN	Name	Designation	Organization
27	Khubiram Adhikari	Training Chief	Education Training Center, Kavre
28	Tej Bikram Thapa	Coordinator	Sindhuli Community Technical Institute
29	Ajit Kumar Gupta	Assistant Director	Federation of Nepalese Chamber of Commerce and Industry
30	Dinanath Gautam	Unit Chief	Education Development and Coordination Unit, Makawanpur
31	Bhumilal Sharma Subedi	Unit Chief	Education Development and Coordination Unit, Chitwan
32	Krishna Prasad Subedi	Unit Chief	Education Development and Coordination Unit, Sindhupalanchowk
33	Tailendra Acharya	Province Director	Council for Technical Education and Vocational Training, Bagmati
34	Madhav Prasad Dahal	Principal	Shree Bhutandevi Secondary School, Hetauda
35	Harihar Pokhrel	Under Secretary	Ministry of labor Employment and Transportation, Hetauda
36	Bidur Kafle	Technical Officer	Council for Technical Education and Vocational Training, Bagmati
37	Dilliman Shrestha	Vice Principal	Adarsha Shaul Secondary School, Lalitpur
38	Tathya Dhamal	Student	Adarsha Shaul Secondary School, Lalitpur
39	Anthony Shakya	Parents-President	Adarsha Shaul Secondary School, Lalitpur
40	Tarapati Kharel	Section Officer	Kathmandu Metropolitan
41	Ratna Bahadur Katuwal	Under Secretary	Surya Binayak Municipality
42	Purna Bahadur Darji	Director	Education Development Directorate, Makawanpur
43	Shreejana Arya	Secretary	Federation of Nepali Journalist
44	Shankar Babu Shrestha	Unit Chief	Education Development and Coordination Unit, Dolakha
45	Khem Kaji Baral	Assistant Principal	Kapilakot Secondary School, Sindhuli
46	Saroj Kumar Pandey	Principal	Tilingtar Secondary School
47	Bishnu Bhattarai	Campus Chief	Manmohan Memorial institute of Health Science, Kathmandu
48	Sanjib Kumar Joshi	Parents	Mahendra Rastriya Secondary School, Kathmandu
49	Shikshya Joshi	Student	Mahendra Rastriya M.V, Kathmandu
50	Dev Raj Gurung	Principal	Mahendra Rastriya M.V, Kathmandu
51	Bhoj Kumar Thakuri	Section Officer	Dhulikhel Municipality
52	Ram Prasad Subedi	Section Officer	Kathmandu Metropolitan
53	Buddhi Raj Subedi	Principal	Nepal Secondary School, Chitwan

SN	Name	Designation	Organization
54	Sarita Regmi	Principal	Narayani Polytechnic Institute, Chitwan
55	Ashok K.C	Leader	Himalaya Media
56	Purna Dev Paneru	Section Officer	Education Development Directorate, Makawanpur
57	Maya Sherpa	Principal	Bigu Polytechnic Institute, Dolakha
58	Shubhadra Paudel	IT Teacher	Nepal Secondary School, Chitwan
59	Ugin Dangol	Student	Adarsha Shaul Secondary School, Lalitpur
60	Suman Bhatta	Driver	Education Development and Coordination Unit, Kathmandu
61	Ek Raj Karki	Driver	Education Development and Coordination Unit, Dolakha
62	Anil Mishra	Driver	Education Development and Coordination Unit, Sindhuli
63	Madhav Thapa	Driver	Education Development and Coordination Unit, Lalitpur
64	Bijaya Paudel	Driver	Ministry of labor Employment and Transportation, Hetauda
65	Dilli Prasad Nepal	Driver	Education Development and Coordination Unit, Sindhupalanchowk
66	Rajesh Gurung	Driver	Education Development and Coordination Unit, Chitwan
67	Pramit Lama	Driver	MoSD, Hetauda
68	Nakula Gurung	Driver	Narayani Polytechnic Institute, Chitwan
69	Pasang	Driver	MoSD, Hetauda
70	Kale Tamang	Driver	ETC, Kavre
71	Pradeep Timsina	Driver	Province Assembly
72	Sonam Singh	Driver	Province Assembly
73	Santa Lama	Driver	Province Assembly
74	Raju Karki	Driver	Province Assembly
75	Tara Thapa	Personal Assistant	Province Assembly
76	Shikhar Nagha Ghulal	Driver	Ministry of Social Development, Hetauda
77	Dhamuraj Pandey	Driver	Education Development and Coordination Unit, Makawanpur
78	Suman Luitel	Driver	Council for Technical Education and Vocational Training, Bagmati
79	Bikash Nagarkoti	Employee	Ministry of Labor
80	Surya Lal Suwal	Driver	Dhulikhel Municipality

**4.9 List of Workshop Participants in Gandaki Province मिति: २०७९ ०४ २९ र ३० गते (August 14-15, 2022)**

SN	Name	Designation	Organization
1	Mekha Lal Shrestha	Minister	Ministry of Social Development
2	Khem Bikram Shahi	Chairperson	State Affair Committee, Provincial Assembly, Gandaki Province
3	Devendra Lamichane	Secretary	MoECSTSD
4	Indira Darai	Deputy Mayor	Byas Municipality
5	Nabaraj Ojha	Chairperson	Rupa Municipality
6	Uddhim Raj Paudel	Unit Chief	Education Development and Coordination Unit, Mustang
7	Narayan Prasad Subedi	Unit Chief	Education Development and Coordination Unit, Kaski
8	Krishna Chandra Pokhrel	Unit Chief	Education Development and Coordination Unit, Nawalpur
9	Hem Prasad Acharya		Pokhara Metropolitan City
10	Ram Prasad Acharya	Officer, 10th	Ministry of Tourism Industry and Commerce, Gandaki
11	Moti Lal Sharma	Officer, 10th	Gandaki Technical Education and Vocational Training Academy
12	Ambika Prasad Acharya	Director	Education Directorate Development
13	Bishnu Prasad Bhattarai	Unit Chief	Education Development and Coordination Unit, Gorkha
14	Laxman Timsina	Director	Gandaki Polytechnic Institute
15	Rajiv Kumar Thakur	Vice-Principal	Pokhara Technical School
16	Omkar Gharti Magar	Student	Pokhara Technical School
17	Sadikshya Acharya	Student	Pokhara Technical School
18	Sandesh K.C	Guardian	Pokhara Technical School
19	Rabindra Ghimire	Acting Secretary (CO, 8th)	Province Assembly Secretariat, Gandaki Province
20	Rita Thapa Magar	Head of Department	Pokhara Technical Health Multipurpose Institute, Pokhara
21	Khadananda Baral	Member of School Management Committee	Sukraraj Secondary School, Pokhara-
22	Naranath Baral	Principal	Sukraraj Secondary School, Pokhara-
23	Rishi Raj Bastola	Section Officer	Ministry of Education, Culture, Science and Technology

SN	Name	Designation	Organization
24	Kusma Raj Upadhyaya	Under Secretary, Unit Chief	Education Development and Coordination Unit, Baglung
25	Shiva Raj Pathak	Instructor	Dhaulagiri Polytechnic Institute, Balewa, Baglung
26	Bal Ram Bhugai	Education Officer	Annapurna Rural Municipality
27	Ram Chandra Adhikari	Principal	Janahit Secondary School, Jomsom, Mustang
28	Bhumaheshwar Ranjitkar	Deputy Director	CTEVT Gandaki Province, Kaski
29	Eka Bahadur Gurung	Principal	Satyawati Secondary School, Byas
30	Nepal Hari Ranabhat	Training Chief	Education Training Center, Gandaki, Tanahun
31	Kishor Bastola	Technical Assistant (Education)	Byas Municipality
32	Dr. Som Nath Sapkota	Executive Director	Gandaki Technical Education and Vocational Training Academy
33	Pramod Bhakta Acharya	Director, CTEVT province	Council for Technical Education and Vocational Training
34	Jharana Baral	Student	Shree Sukraraj Secondary School
35	Archana Baral	Student	Shree Sukraraj Secondary School
36	Dr. Santwana Sherchan	Agriculture Instructor	Dhaulagiri Technical School, Mustang
37	Bishnu Prasad Paudel	Section Officer	Gandaki Province Assembly Secretariat
38	Toyanath Lamsal	Under Secretary	Ministry of Education, Culture, Science and Technology, Gandaki
39	Rasina Gurung	Student	Pokhara Technical Health Multiple Institute
40	Ayush Lamichhane	Student	Pokhara Technical Health Multiple Institute
41	Ram Nath Lamsal	Principal	Kaligandaki Polytechnic Institute, Tanahun
42	Bishnu Prasad Paudel	Vice-Principal	Gorkha Polytechnic Institute
43	Kshitij Gurung	Course Coordinator	Gorkha Polytechnic Institute
44	Sagar Neupane	Technical Co-coordinator	Janata Secondary School
45	Resam Bahadur Shris	Head Teacher	Dhaulagiri Deaf Secondary School
46	Mina Chhetri	Parent	Pokhara Technical Health Multiple Institute
47	Basanta Raj Paudel	Unit chief	Education Development and Coordination Unit, Tanahun



<b>SN</b>	<b>Name</b>	<b>Designation</b>	<b>Organization</b>
48	Sandip Paudel	Section Officer (7th level)	Rupa Rural Municipality
49	Kul Bahadur Phadera	Under Secretary	Ministry of Education, Science and Technology
50	Hari Pradhan	Team Leader	British Council
51	Chuman Babu Shrestha	Planning expert	Centre for Public Policy Dialogue
52	Sita Paudel	Gender and Social Inclusion Expert	Centre for Public Policy Dialogue
53	Roshan Ghimire	Program coordinator	Centre for Public Policy Dialogue
54	Nijendra Pratap Shrestha	Documentation Officer	Centre for Public Policy Dialogue
55	Suzana Kansakar	Logistics support	Centre for Public Policy Dialogue
56	Nripa Devkota	Program support	Centre for Public Policy Dialogue

**4.10 List of Workshop Participants in Karnali Province मिति: २०७९०५०९२ १० गते (August 25-26, 2022)**

SN	Name	Designation	Organization
1	Devi Oli	Chairperson	Ministry of Social Development – Province Assembly
2	Krishna Prasad Kapri	Secretary	Ministry of Social Development, Karnali Province
3	Nilkantha Khanal	Deputy-Mayor	Birendranagar Municipality
1	Babita Regmi	Technical Assistant	Education Development Co-ordination Unit, Mugu
2	Binod Acharya	Under-Secretary	Ministry of Social Development, Surkhet
3	Dharmajit Shahi	Under-Secretary	Human Resource Development Centre
4	Dipa Hamal	Under-Secretary	Education Directorate Direction, Karnali Province, Surkhet
5	Prem Prasad Baskota	Training Focal Person (T.O)	Council for Technical Education and Vocational Training, Karnali Province
6	Kaviraj Khatri	Member	Federation of Nepalese Chambers of Commerce & Industry, Karnali
7	Tulshi Prasad Acharya	Officer	Ministry of Industry, Tourism, Forest and Environment
8	Niruta Koirala	Student	Shree Nera Ma. Vi
9	Surendra Rawat	Student	Yogi Naraharinath Study and Research Academy
10	Ashok Thapa	Guardian	Yogi Naraharinath Study and Research Academy
11	Suryanath Yogi	Campus Chief	Yogi Naraharinath Study and Research Academy
12	Dammar Kumari Rokaya	Section Officer	Barahatal Rural Municipality
13	Bhoj Prasad Lamsal	Unit Chief	Education Development and Co-ordination Unit, Surkhet
14	Dhirendra Prasad Sharma	Under Secretary	Birendranagar Municipality
15	Ganesh Kumar Neupane	Principal	Nepal Rastriya Secondary School, Surkhet
16	Prem Kumar Ramdam	Member	Nepal Rastriya Secondary School, Surkhet
17	Prem Bahadur Oli	Engineer	Ministry of Water Resource & Energy Development, Karnali Province, Surkhet
18	Padam Bahadur B.K.	Education Officer	Gurbakot Municipality, Surkhet
19	Gajendra Kumar G.C.	Education Officer	Bheriganga Municipality, Surkhet
20	Jeetendra Kumar Mahat	Vice Principal	Shree Janata Secondary School, Jumla
21	Jay Bahadur Bohara	Teacher	Shree Bhairab Secondary School, Narakot Sinja, Jumla
22	Rajendra Sharma	Chairman	Panchakoshi Technical School, Dailekh
23	Keshav Bahadur Bhandari	Principal	Vijaya Secondary School, Dullu, Dailekh

SN	Name	Designation	Organization
24	Madhav Bikram G.C	Principal	Tribhuvan Jan Secondary School, Luhaping, Salyan
26	Shiva Regmi	Principal	Sharada Secondary School Sankhamool, Salyan
27	Subarna Kumar Khadka	Section Officer	Human Resource Development Center
28	Lok Prasad Paudel	Section Officer	Education Directorate Direction, Surkhet
29	Ram Prasad Upadhyaya	Section Officer	Ministry of Social Development
30	Suwas Chandra Acharya	Under Secretary	Provincial Examination Management Office, Surkhet
31	Ramesh Khadka	Officer	Ministry of Land Management, Agriculture and Cooperatives, Karnali
32	Dhim Raj Jolmi Magar	Chairman	Ward Office-5, Barahaltal
33	Jaya Kumari Devkota	Head Teacher	Shree Panchadewal Secondary School, Kalikot
34	Nirmala Kumari Devkota	Care Taker (Jaya Kumari Devkota)	
35	Smiriti Pokhrel	Student	Shiva Secondary School, Latikoili
36	Tek Bahadur Nepali	Student	Shiva Secondary School, Latikoili
36	Bijaya Thapa	Student	Jana Model Secondary School
37	Brish Shahi	Health Division Chief	Ministry of Social Development, Surkhet

#### 4.11 List of Workshop Participants in Sudurpashchim Province

मिति: २०७९/०४/०९ र १० गते (July 25-26, 2022)

SN	Name	Designation	Organization
1	Govinda Raj Bohara	Minister	Ministry of Social Development, Dhangadhi
2	Tek Bahadur Roka	State Minister	Ministry of Social Development, Dhangadhi
3	Kunti Joshi	Provincial Assembly	Provincial Assembly, Dhangadhi
4	Gelbu Singh Bohara	Provincial Assembly	Provincial Assembly, Dhangadhi
5	Deepak Lamichane	Secretary	Ministry of Social Development, Dhangadhi
6	Nanda Bahadur Saud	Provincial Assembly	Provincial Assembly, Dhangadhi
7	Dibyeshwori Shah	Provincial Assembly	Provincial Assembly, Dhangadhi
8	Narendra Bahadur Pal	Provincial Assembly	Provincial Assembly, Dhangadhi
9	Kanya Kala Kumari Rana	Dhangadhi Sub Metropolitan	Deputy-Mayor, Dhangadhi
10	Guliya Kumari Chaudhary	Ghodaghodi Municipality	Deputy-Mayor, Ghodaghodi
11	Birendra Bhatta	Godawari Municipality	Mayor, Godawari
12	Ram Lal Tharan	Tikapur Municipality	Deputy- Mayor, Tikapur
13	Suresh Kumar Joshi	Kathmandu	Center for Education and Human Resource Development
14	Lokendra Prasad Bhatta	Section Officer	Ministry of Social Development, Dhangadhi
15	Bhim Prasad Paneru	Officer- Education Training Centre	Education Training Centre, Dipayal
16	Dev Bahadur Bogati	Province Secretary	Far-west Province, Dhangadhi
17	Jaya Raj Pant	Unit Chief	Education Development and Coordination Unit, Darchula
18	Narendra Bahadur Khati	Under Secretary	Dhangadhi
19	Bishnu Raj Awasthi	Technical Assistant	Godawari Municipality, Dhangadhi
20	Dev Singh Dhama	Deputy Director	Council for Technical Education and Vocational Training, Dhangadhi
21	Janak Bahadur Rokaya	Technical Assistant	Education Development and Coordination Unit, Bajhang
22	Deepa Joshi	Technical Officer	Council for Technical Education and Vocational Training, Dhangadhi
23	Narendra Prasad Awasthi	Unit Chief	Education Development and Coordination Unit, Baitadi
24	Laxman Giri	Unit Chief	Education Development and Coordination Unit, Achham
25	Krishna Bahadur Bohara	Section Officer	Education Directorate Development, Dipayal
26	Prem Prasad Subedi	Principal	Pahalmansingh Higher Secondary School

SN	Name	Designation	Organization
27	Prem Raj Pandey	Instructor	Bhimdatta Polytechnic Institute, Baitadi
28	Sabin Bhandari	Instructor	Shree Latinath Higher Secondary, Darchula
29	Pratap Singh Dhama	Section Officer	Education Development and Coordination Unit, Dhangadhi
30	Chet Bahadur Kathyat	Instructor	Shree Jalapa Devi Secondary School, Achham
31	Ganesh Bahadur Singh	Director	Education Directorate Development, Dipayal
32	Umesh Raj Regmi	Section Officer	Ghodaghodi Municipality
33	Hari Joshi	Secretary	Federation of Nepali Journalists
34	Surendra Singh Karki	Admin Officer	Dhangadhi Sub- Metropolitan
35	Ram Bahadur B.K.	Instructor	Dhangadhi Polytechnic Institute, Dhangadhi
36	Hemraj Joshi	Instructor	Dhangadhi Polytechnic Institute, Dhangadhi
37	Er. Bhupesh Upadhyaya	Instructor	Dhangadhi Polytechnic Institute, Dhangadhi
38	Bharat Bahadur Rawal	Assistant Technology	Shree Mangala Nepal Rastriya, Achham
39	Dipesh Sunar	Office Assistant	Ministry of Social Development, Dhangadhi
40	Bina Kumari Paudel	Technical Assistant	Tikapur Municipality, Dhangadhi
41	Bijaya Raj Ojha	Law officer	MOEFIT, Dhangadhi
42	Sher Bahadur Chaudhary	Principal	Shree Pahalmansingh Higher Secondary School, Dhangadhi
43	Dipak Bahadur Bohara	Teacher	Bhairav Secondary School, Bajhang
44	Rajendra Bahadur Singh	Principal	Shree Durga Bhawani Secondary School, Bajhang
45	Hari Prasad Joshi	Principal	Jana Bikash Secondary School, Darchula
46	Gagan Ayodi	Press	Sudurkhabar.com, Dhangadhi
47	Ramesh Datt Bag	Principal	Shree Manilek Secondary School, Baitadi
48	Deepak Bishwokarma	Student	Dhangadhi Polytechnic Institute, Dhangadhi
49	Dipesh Joshi	Student	Dhangadhi Polytechnic Institute, Dhangadhi
50	Pradeep Neupane	Student	Dhangadhi Polytechnic Institute, Dhangadhi
51	Deependra Joshi	Student	Dhangadhi Polytechnic Institute, Dhangadhi
52	Mrigyendra Singh	Student	Dhangadhi Polytechnic Institute, Dhangadhi
53	Yasodha Bithari	Student	Dhangadhi Polytechnic Institute, Dhangadhi

SN	Name	Designation	Organization
54	Bhim Chaudhary	Bureau Chief	Janata T.V, Dhangadhi
55	Anil Kumar Chaudhary	Student	Pahalmansingh H.S School, Dhangadhi
56	Rohit Chaudhary	Student	Pahalmansingh H.S School, Dhangadhi
57	Janaki Parki	Parents	Dhangadhi Polytechnic Institute, Dhangadhi
58	Balaram Chaudhary	Student	Pahalmansingh H.S School, Dhangadhi
59	Suman Chaudhary	Student	Dhangadhi Polytechnic Institute, Dhangadhi
60	Ram Bahadur K.C	Instructor	Dhangadhi Polytechnic Institute, Dhangadhi
61	Krishna Bahadur Parki	Student	Dhangadhi Polytechnic Institute, Dhangadhi
62	Deepak Bhandari	Section Officer	Ministry of Education, Science and Technology
63	Rajendra Raika	Personal Assistant	Ministry of Social Development
64	Bhim Bahadur Bogati	Driver	Education Development and Coordination Unit, Achham
65	Gagan Singh Dhami	Driver	Education Development and Coordination Unit, Darchula
66	Rajib Chaudhary	Driver	Ministry of Social Development
67	Prem Bahadur Diyal	Driver	Education Directorate Development, Dipayal
68	Jeevan Chaudhary	Driver	Tikapur Municipality, Dhangadhi
69	Dil Bahadur Ayer	Driver	Godawari Municipality, Dhangadhi
70	Shyam Lal Chaudhary	Personal Security Officer	Ministry of Social Development, Dhangadhi
71	Prakash Bohara	Personal Security Officer	Ministry of Social Development, Dhangadhi
72	Basanta Janak Saud	Personal Security Officer	Ministry of Social Development, Dhangadhi
73	Shiv Raj Bohara	Personal Assistant	Ministry of Social Development, Dhangadhi
74	Tek Raj Pangleya	Personal Assistant	Ministry of Social Development, Dhangadhi
75	Bhawani Singh Mandal	Personal Security Officer	Ministry of Social Development, Dhangadhi
76	Suresh Baniya	Personal Assistant	Dhangadhi Sub Metro Politian, Dhangadhi
77	Janak Saud	Personal Security Officer	Ministry of Social Development

## Annex 5: Slides for consultation with Business and Industry stakeholders



### प्रस्तुतिको उद्देश्य:

- प्राविधिक तथा व्यावसायिक शिक्षा क्षेत्र विश्लेषण अध्ययन (TVET Sector Analyses) को केहि तथ्यांक तथा यस आधार अध्ययनले उब्जाएका प्रश्नहरु: तथा
- प्राविधिक तथा व्यावसायिक शिक्षा क्षेत्र सुधार योजना (TRSP) का लागि प्रस्तावित केही उपायहरु



### प्राविधिक तथा व्यावसायिक शिक्षा क्षेत्रमा केही उल्लेखनिय उपलब्धीहरु

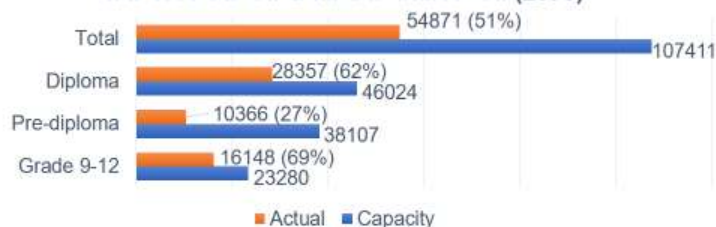
- नेपाल सरकारको उद्देश्य तथा जोड
- प्राविधिक तथा व्यावसायिक शिक्षाका संस्थागत संरचना
  - ❖ संघिय मन्त्रालयहरु: शिक्षा, श्रम, उद्योग, पर्यटन, कृषि, महीला
  - ❖ प्रदेश मन्त्रालयहरु: शिक्षा, उद्योग, पर्यटन, कृषि संग सम्वन्धित
  - ❖ स्थानिय तह
- **For TVET learners/trainees/graduates:**
  - **Business and industry/ economic sectors the Biggest Training School in Nepal**
  - **Business and Industry/ economic sectors important source for OJT opportunities**
  - **Business and industry/ economic sectors, probably the biggest employer (wage, self/ entrepreneur)**

### शिक्षालय र विद्यालय विस्तार (2073-2078)

	853	1084	1361	1526	1585	1591
CEHRD	569	650	877	1042	1100	1106
CTEVT	284	434	484	484	485	485

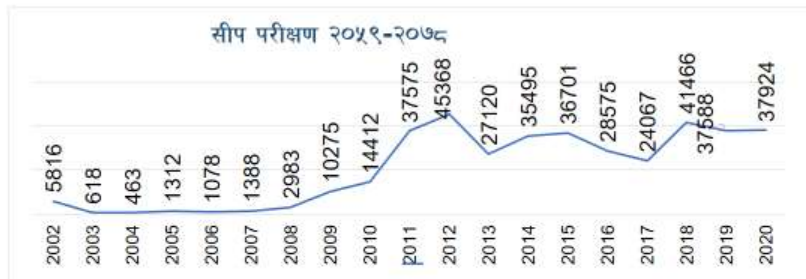
— CTEVT Total — CEHRD — All total

### लामो कार्यक्रममा भर्ना क्षमता तथा वास्तविक भर्ना (2078)



छोटा अवधिका प्रदायक:

- शिक्षा मन्त्रालय, सिटिईमिडि: १३५५
- अन्य मन्त्रालय



तर मुख्यतः

- **Graduates are not industry-ready**
- छोटा अवधिका तालिम तह १ केन्द्रित एकल (Stand alone training) कार्यक्रम
- तथा ठूला ऋण तर प्रतिफल प्रति गुनासो

वार्षिक अनमानित २० अर्ब भन्दा बढी लगानिको परिणामरु



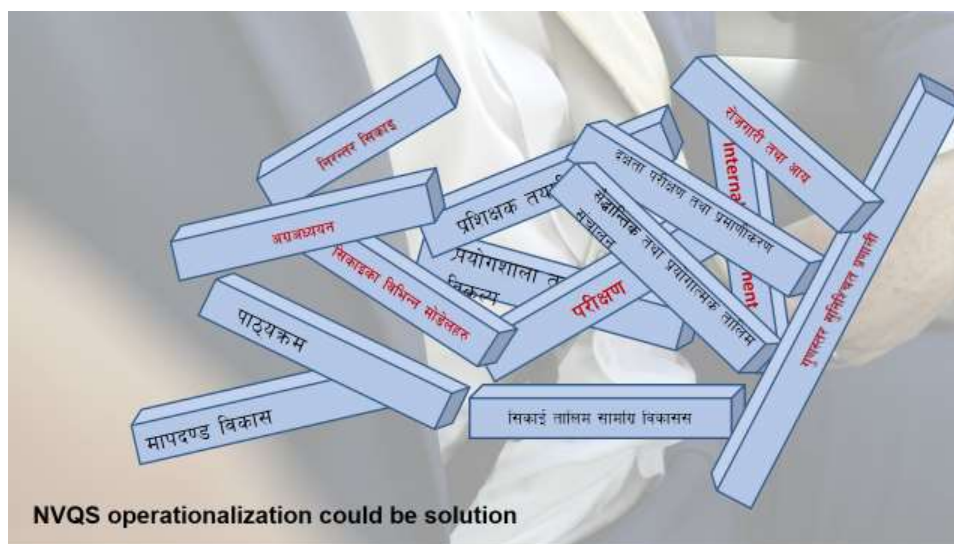
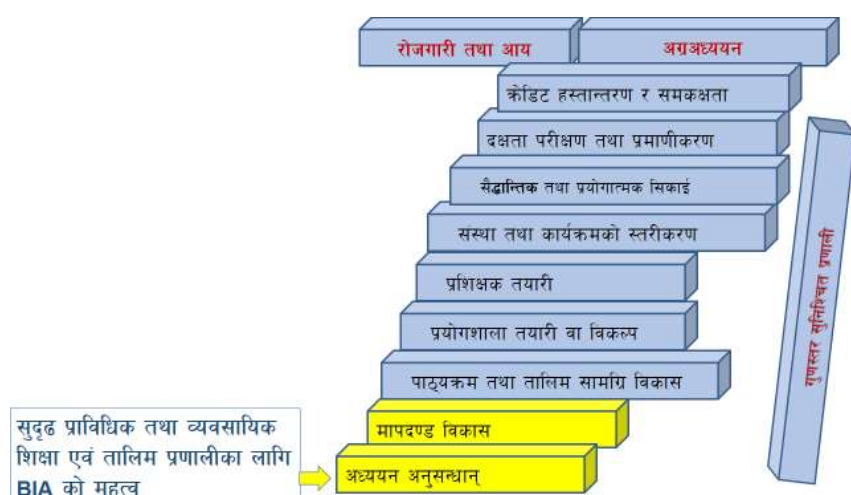
आत्मसन्तुष्ट प्राविधिक तथा व्यवसायिक शिक्षा प्रणाली



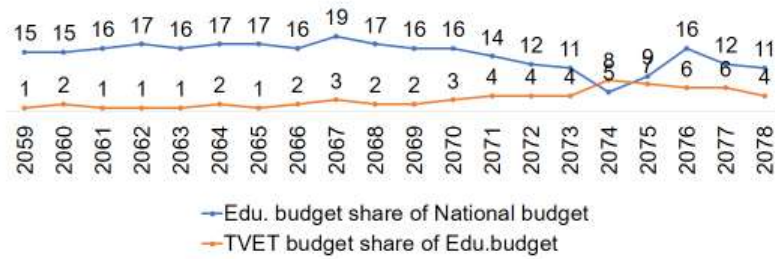


### उद्योग व्यवसायको समुचित संलग्नता

संरचना	हालको सदस्य संख्या	उद्योग व्यवसायका प्रतिशत
सिटीईमिडि सभा	23	4 (17%)
सिटीईमिडि परिषद	9	0 (0%)
राष्ट्रिय सीप परीक्षण समिति	16	8 (50%)
विषय क्षेत्र सीप समिति		>90%
शिक्षालय व्यवस्थापन समिति	9	1 to 2 (11%)
शिक्षा तथा मानव श्रोत विकास केन्द्र	?	



## सम्पूर्ण शिक्षा क्षेत्रको तुलनामा TVET क्षेत्रको वजेट



यस आधार अध्ययनले उब्जाएका प्रश्नहरू:

- प्राविधिक शिक्षा प्रणालीका योग्यता र उद्योग व्यवसायमा आवश्यक जनशक्तिको दक्षता तथा संख्या विच सामंजस्य मिलाउन के गर्न पर्ला ? साथै भरपर्दो जनशक्ति प्रक्षेपण कसरी गर्न सकिएला ?
- उद्योग व्यवसायमा आवश्यक जनशक्तिको दक्षता तथा संख्या (**Labor market information – LMIS**) लाई प्राविधिक शिक्षा प्रणालीसंग जोड्न के गर्न पर्ला ?
- प्राविधिक शिक्षा प्रणालीका मापदण्ड तथा पाठ्यक्रम तयार गर्ने क्रममा उद्योग व्यवसायको तर्फबाट श्रोत व्यक्ति उपलब्ध गर्न के व्यवस्था गर्नु पर्ला ?
- प्राविधिक तथा व्यावसायिक शिक्षालाई खासगरी छोटो अवधिको तालीमलाई उद्योग व्यवसाय तथा आर्थिक क्षेत्रको माग अनुशार हुने गरी जोड्नको निमित्त के गर्न पर्ला ?
- प्रभावकारी र नतिजामुखी प्राविधिक तथा व्यावसायिक शिक्षा कार्यान्वयनको लागि सघ, प्रदेश र स्थानिय तहले सम्पादन गर्ने कार्य अनुरूप कस्तो संस्थागत संरचना उपयोगी हुन सक्छ ?

यस आधार अध्ययनले उब्जाएका प्रश्नहरू...

- **TVET** अध्ययन गरका व्यक्तिहरूको रोजगारी र सान्दर्भिकता कसरी बढाउन सकिन्छ ?
- **TVET** क्षेत्रमा भएको खण्डीकरण समस्यालाई कसरी सम्बोधन गर्न सकिएला ?
- नेपालको सन्दर्भमा प्राविधिक शिक्षाको उद्देश्य के भएको देखिन्छ र के हुनपर्ला ?
  - उच्च अध्ययनको निमित्त
  - रोजगारीको लागि तथा स्थानिय तहको आवश्यकता पूर्ती गर्न

## साँचो अर्थमा

उद्योग व्यवसाय तथा समग्र आर्थिक क्षेत्रलाई उपयोगि जनशक्ति तयार गर्न उद्योग व्यवसाय र TVET प्रणाली विच कस्तो सहकार्य गर्नु पर्ला ?

प्राविधिक तथा व्यावसायिक शिक्षा एवं तालिमका केही सिद्धान्तहरु

१. सान्दर्भिक

- रोजगार बजार सान्दर्भिक (Employment First)
- यस सम्बन्धि सवै कार्यहरु तथा प्रयासहरु रोजगार उन्मुख
- उद्योग व्यवसाय तथा आर्थिक क्षेत्रसंग उत्पादनशिल सहकार्य
- शैक्षिक योग्यता

२. पहुँच

३. मापदण्डमा आधारीत पाठ्यक्रम तथा सिकाई वातावरण (Competence standards based curriculum and learning environment)

४. गुणस्तर सुनिश्चितता

५. दिगो लगानी

Sources:

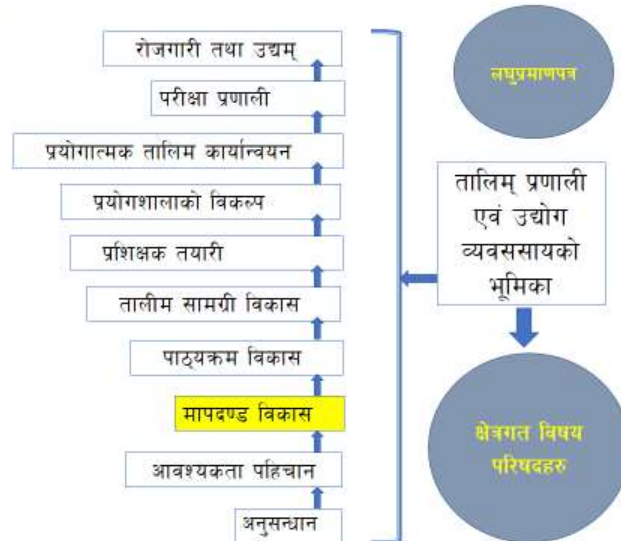
1. Loose 2015;

2. MacDonald, Stephen; Nink, Carl; Duggan, Stephen)

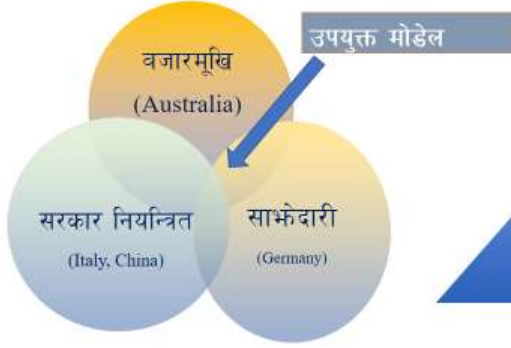
In <https://www.voced.edu.au> dated 30 July 22

प्राविधिक तथा व्यावसायिक शिक्षा क्षेत्र सुधारका केहि उपायहरु

प्राविधिक तथा व्यावसायिक शिक्षालाई अन्तर्राष्ट्रिय सिद्धान्त तथा सफल अभ्यासमा कार्यान्वयन गर्ने



व्यावसायिक शिक्षा एवं तालीम सम्बन्धि  
अन्तर्राष्ट्रिय मोडेलहरू



उद्योग व्यवसायसंग समन्वयः  
विभिन्न देशहरूबाट सिकाई



**Macro and Meso** तहमा सार्वजनिक नीजि साभेदारी

संरचना	लगानीको श्रोत	देशहरू
उच्च TVET स्वायत्त संस्था (Apex TVET Autonomous Body with range of BIA participation)	सरकार तथा दातृ निकाय	देशहरू
विषय क्षेत्र सीप परिषद (Sector Skills Councils)	सरकार तथा निजी क्षेत्र	धेरै देशहरू, नेपाल अनुभव
निजी क्षेत्रको व्यवस्थापनमा व्यवसायिक सीप विकास परिषद	तालिमबाट प्राप्त आम्दानी	पाकिस्तान
उद्योग व्यवसाय सम्मिलित HRD Council	सरकार तथा निजी क्षेत्र	मलेशिया

शिक्षालय तहमा सार्वजनिक नीजि साभेदारी

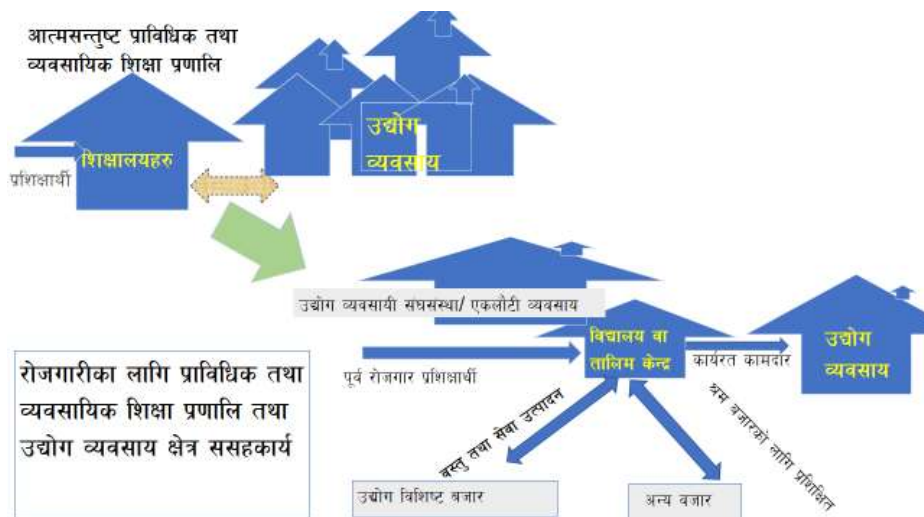
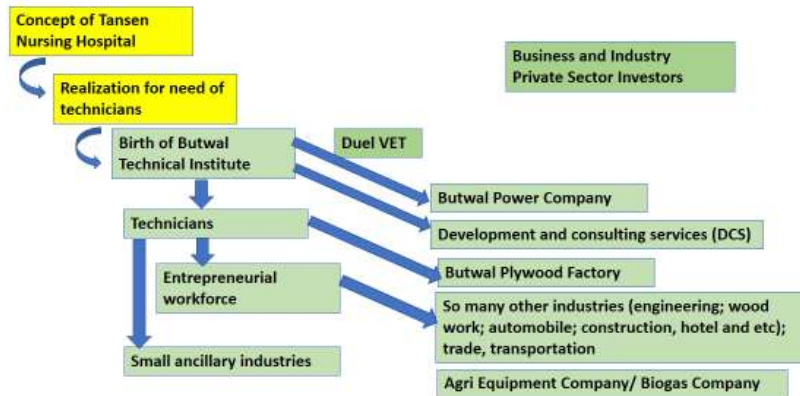
संरचना	लगानीको श्रोत	देशहरू
शिक्षालय व्यवस्थापन समिति वा बोर्ड	सरकार	पाकिस्तान, नेपाल
अर्ध स्वायत्त शिक्षालय	फि तथा सरकारी, पालिका तथा दातृसंस्था अनुदान	तानसेन नर्सिंग स्कुल
शिक्षालय व्यवस्थापन कन्ट्र्याक्ट	सरकार तथा निजी क्षेत्र	पाकिस्तान,
निजी शिक्षालय	फि, sponsored training, परिणाममूखि सरकारी, पालिका तथा दातृसंस्था अनुदान	पाकिस्तान, बंगलादेश, भारत India Nepal/ UK and US
Enterprise Advisory and Partnership Committee (EAPC)	सरकार तथा निजी क्षेत्र	नेपाल



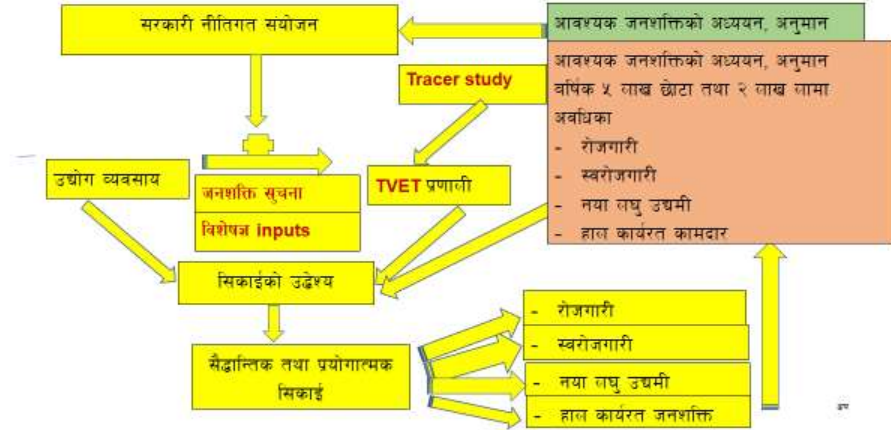
कार्यान्वयन तहमा सार्वजनिक नीजि साभेदारी मोडेलहरु

मोडेलहरु	देशहरु	रोजगारीको संभावना
शिक्षालय कार्यस्थलमा आधारित तालिम (OJT) model	नेपाल, many countries	मध्यम
उद्योगसग जोडिएका कार्यक्रम	भारत (ITC, TTC)	उच्च
सम्पूर्ण रुपमा उद्योगमा संचालित कार्यक्रम	पाकिस्तान,	उच्च
Dual VET#	Mainly जर्मनी	उच्च
Cooperative vocational training (CVT)	पाकिस्तान,	
Apprenticeship (and Employment (AE) model)	Many countries, Swiss	उच्च
फिल्डमा आधारित कार्यक्रम	पाकिस्तान, तान्जानिया	स्वरोजगार, उद्यमी
Training Hotel/Factory Model	पाकिस्तान, नेपाल (?)	मध्यम
Production/ Outlet Model	पाकिस्तान	
Space Sharing model	पाकिस्तान	

TVET, उद्योग व्यवसाय तथा विकास विच अन्योन्याश्रित सम्बन्ध symbiotic relationship वुटवल टेक्निकल इन्स्टिच्यूटको उदाहरण



**TVET क्षेत्रको योजना प्रक्रियामा पून विचारको आवश्यकता**  
**Rethinking for Relevance – Reversing TVET planning**



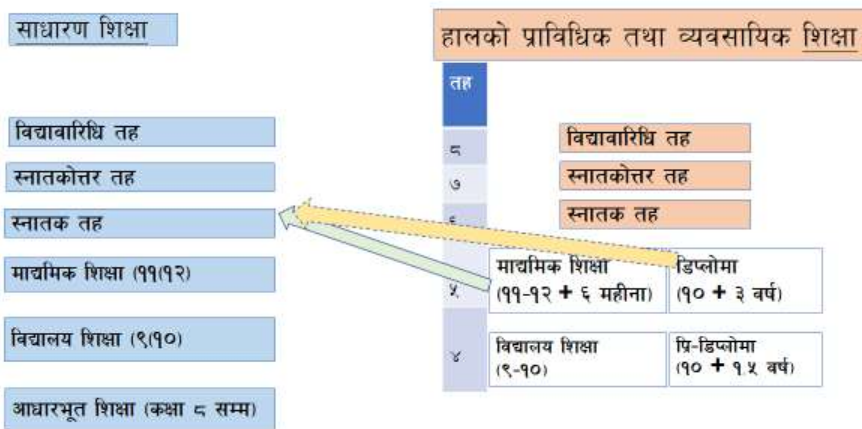
**उद्योग व्यवसायको समुचित संलग्नता**

संरचना	हालको सदस्य संख्या	उद्योग व्यवसायका प्रतिशत	उद्योग व्यवसायका प्रस्तावित प्रतिशत
सिटिईभिडि सभा	23	4 (17%)	12 (50%)
सिटिईभिडि परिषद	9	0 (0%)	4 (50%)
राष्ट्रिय सीप परीक्षण समिति	16	8 (50%)	8 (50%)
विषय क्षेत्र सीप समिति		>90%	Maintain it
शिक्षालय व्यवस्थापन समिति	9	1 to 2 (11%)	4 (50%)
शिक्षा तथा मानव श्रोत विकास केन्द्र	?		

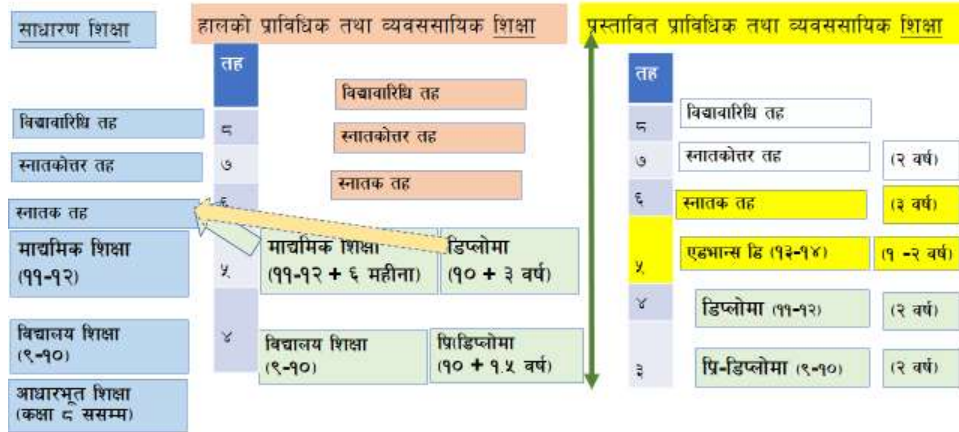
विषय क्षेत्र सीप समिति वा अन्य नाम

- स्वायत्त संस्थाको रुपमा दर्ता

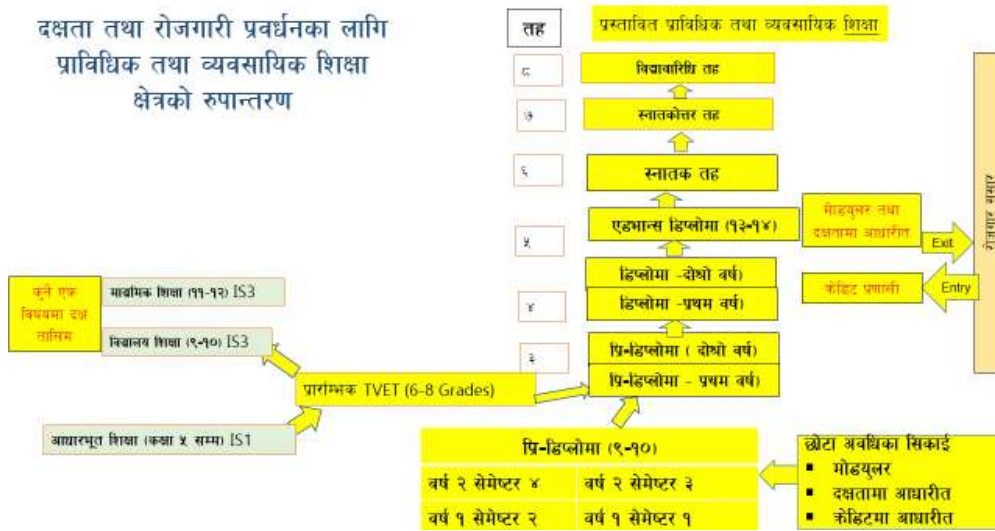
**साधारण तथा प्राविधिक तथा व्यवसायिक शिक्षा क्षेत्रको अवस्था**



दक्षता तथा रोजगारी प्रवर्धनका लागि: प्राविधिक तथा व्यवसायिक शिक्षा क्षेत्रको रूपान्तरण



दक्षता तथा रोजगारी प्रवर्धनका लागि प्राविधिक तथा व्यवसायिक शिक्षा क्षेत्रको रूपान्तरण



संभावित अन्तर्निहित प्रश्नहरू

• उद्योग व्यवसायले जनशक्ति तयार गरि देश विकासमा यतिका योगदान दिएको छ भने सरकारले किन उपयुक्त वातावरण तयार नगरेको होला ?

• सरकारले रोजगारी तथा उद्योग व्यवसायको लागि यतिका व्यवस्था गरेको छ । किन उद्योग व्यवसायले उपयुक्त सहयोग नगरेको होला ?

## सहभागिहरुवाट आशा गरिएका सुभावाका क्षेत्रहरु

- नेपालको उद्योगको स्वरुप अनुशार कस्तो खालको सीपको आवश्यकता देख्नुहुन्छ ?
- नेपालबाट उत्पादित प्राविधिक (दक्ष) जनशक्तिलाई स्वदेशको उद्योगमा आकर्षण गर्न उद्योगीहरुको तर्फबाट के कस्तो प्रयासहरु भएको छ ?
- नेपालका प्राविधिक शिक्षालयमा पठनपाठन हुने पाठ्यक्रमलाई उद्योगको आवश्यकता संग जोड्नको निमित्त के गर्नु पर्ने हुन्छ ?
- नेपालको उद्योगहरुका निमित्त माथिल्लो तहको सीप भएका जस्तै: सीप तह ५, ६, ७ जस्ता दक्ष जनशक्तिको आवश्यकता कतिको छ ?
- प्राविधिक शिक्षा र उद्योगलाई जोड्नको निमित्त नीतिगत तहमा के कस्तो सुधारहरु आवश्यक छ ?



**Annex 6: Slides for consultation with other stakeholders**



**प्रस्तुतिको उद्देश्य:**

- प्राविधिक तथा व्यावसायिक शिक्षा क्षेत्र विश्लेषण अध्ययन (TVET Sector Analyses) को केहि तथ्यांक तथा यस आधार अध्ययनले उब्जाएका प्रश्नहरू: तथा
- प्राविधिक तथा व्यावसायिक शिक्षा क्षेत्र सुधार योजना (TRSP) का लागि प्रस्तावित केही उपायहरू



प्राविधिक तथा व्यावसायिक शिक्षा क्षेत्रमा केही उल्लेखनीय उपलब्धिहरू

- नेपाल सरकारको उद्देश्य तथा जोड
- प्राविधिक तथा व्यावसायिक शिक्षाका संस्थागत संरचना
  - सघिय मन्त्रालयहरू: शिक्षा, श्रम, उद्योग, पर्यटन, कृषि, महीला
  - प्रदेश मन्त्रालयहरू: शिक्षा, उद्योग, पर्यटन, कृषि संग सम्बन्धित
  - स्थानिय तह

**शिक्षालय र विद्यालय विस्तार (2073-2078)**

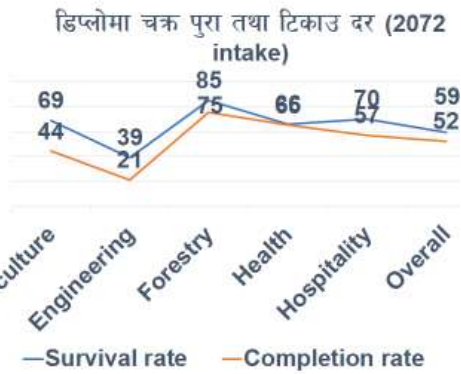
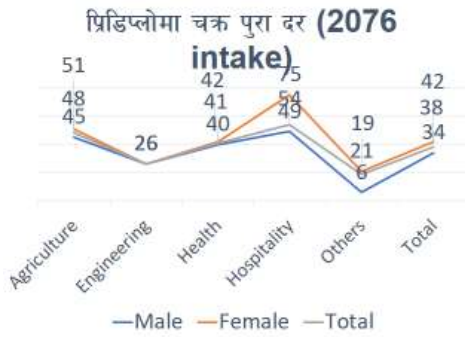
	2073	2074	2075	2076	2077	2078
— CTEVT Total	853	1084	1361	1526	1585	1591
— CEHRD	569	650	877	1042	1100	1106
— All total	284	434	484	484	485	485

छोटा अवधिका प्रदायक:  
शिक्षा मन्त्रालय, सिटिईभिडि: १३५५  
अन्य मन्त्रालय

— CTEVT Total — CEHRD — All total

**लामो कार्यक्रममा भर्ना क्षमता तथा वास्तविक भर्ना (2078)**





### विद्यार्थिले सिसकाई छाड्ने दर, 2078

Grades with dropout	Technical stream	Pre- Diploma	Diploma
Dropout in Grade 10	14.5	-	-
Dropout in Grade 11	21.7	-	-
Dropout in Grade 12	38.8	-	-
Dropout in Pre-Diploma	-	0.1	-
Dropout in Diploma	-	-	0.8

### डिप्लोमा टिकाउ दर (Survival rate to Grade 12)

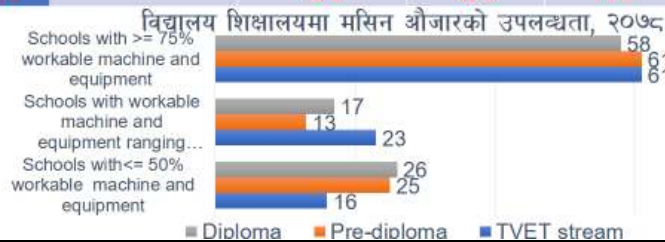
Gender	Survival Rate
Girls	62.6
Boys	53.9
Overall	57.9

### लगानिको परिणामहरु



### २०७३ पछि परिमार्जित पाठ्यक्रमहरु

Sectors	Technical stream	Pre-Diploma	Diploma	Short term
Agriculture	2		4	13
Engineering	3	3	9	34
Health			11	1
Hospitality		1	1	15
Forestry		1	1	1
Music	1			
Others		1	2	16
<b>Total (after)</b>	<b>6 (100%)</b>	<b>6 (18%)</b>	<b>28 (57%)</b>	<b>80 (30%)</b>
<b>Prepared before</b>		<b>72%</b>	<b>43%</b>	<b>70%</b>



**TVET का  
अभिन्न  
अवयवहरु**

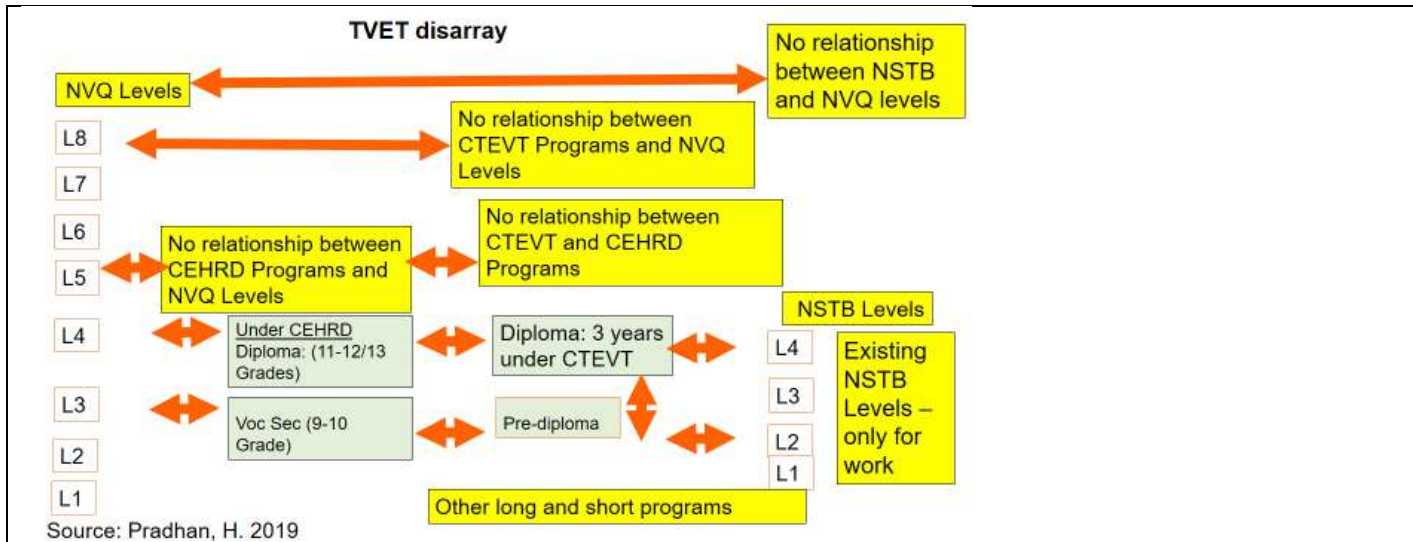


**Right Standards lead to Right Results**



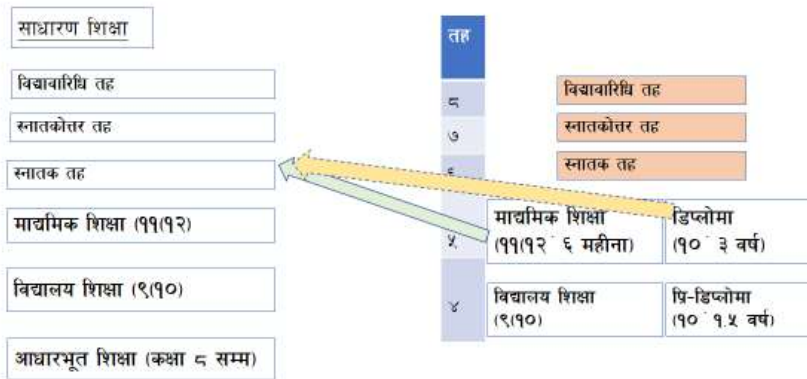
**NVQS operationalization could be solution**



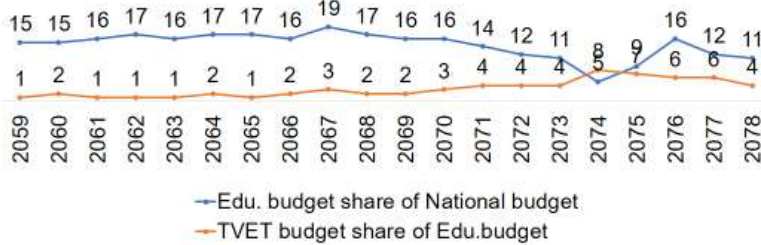


दक्षता तथा रोजगारी प्रवर्धनका लागि: प्राविधिक तथा व्यवसायिक शिक्षा क्षेत्रको रूपान्तरण

हालको प्राविधिक तथा व्यवसायिक शिक्षा



सम्पूर्ण शिक्षा क्षेत्रको तुलनामा TVET क्षेत्रको बजेट





यस आधार अध्ययनले उब्जाएका प्रश्नहरू:

- नेपालमा TVET को उद्देश्यहरू कसरी स्पष्ट गर्ने?
  - रोजगारीको लागि: स्थानीय, राष्ट्रिय तथा अन्तर्राष्ट्रिय
  - शैक्षिक योग्यताका लागि
  - दुवै
- अवस्थित नामांकन स्थानहरूको (Enrolment) उपयोग कसरी बढाउने?
- तलको तहभन्दा माथि (Vertical expansion) तथा क्षितिजिकरण (Horizontal expansion) मा केन्द्रित अध्ययनका विषयवस्तुहरू कसससरी विस्तार गर्ने?
- कम्तिमा ३ महीना अवधिका तालिमलाई कसरी सान्दर्भिक बनाउने ?

सयस आधार अध्ययनले उब्जाएका प्रश्नहरू...

- TVET अध्ययन गरेका व्यक्तिहरूको रोजगारी/सान्दर्भिकता कसरी बढाउने?
- TVET क्षेत्रमा भएको खण्डीकरण समस्यालाई कसरी सम्बोधन गर्ने?
- संघिय, प्रदेश तथा स्थानीय तहमा TVET संस्थाहरू कसरी व्यवस्थित गर्ने?
- विद्यालयका लागि आवश्यक बजेट कससरी सुनिश्चित गर्ने ?
- प्राविधिक धारलाई कसरी वास्तविक निःशुल्क बनाउने?
- दीर्घकालीन TVET कार्यक्रमहरूमा बाह्य विकास साभेदारहरूको कोष सही अर्थमा कसरी वृद्धि गर्ने?

यस शिक्षालाई कसरी साँचो अर्थमा  
**‘गरी खाने शिक्षा’**  
बनाउने ?

### प्राविधिक तथा व्यावसायिक शिक्षा क्षेत्र सुधारका केही उपायहरु

- प्राविधिक तथा व्यावसायिक शिक्षालाई अन्तर्राष्ट्रिय सिद्धान्त तथा सफल अभ्यासमा कार्यान्वयन गर्ने र तत्अनुरूप,
- प्राविधिक तथा व्यावसायिक शिक्षालाई नेपाल सरकारले तयार गरेको राष्ट्रिय व्यावसायिक योग्यता प्रणालि (**National Vocational Qualification Framework**) का आधारमा विकास गर्ने

### प्राविधिक तथा व्यावसायिक शिक्षा एवं तालिमका केही सिद्धान्तहरु

#### १. सान्दर्भिक

- रोजगार बजार सान्दर्भिक (**Employment First**)
  - यस सम्बन्धि सबै कार्यहरु तथा प्रयासहरु रोजगार उन्मुख
  - उद्योग व्यवसाय तथा आर्थिक क्षेत्रसंग उत्पादनशिल सहकार्य
- शैक्षिक योग्यता

#### २. पहुँच

#### ३. मापदण्ड आधारित पाठ्यक्रम तथा सिकाई वातावरण (**Competence standards based curriculum and learning environment**)

#### ४. गुणस्तर सुनिश्चितता

#### ५. दिगो लगानी

#### • Sources:

- 1. Loose 2015; 2. MacDonald, Stephen; Nink, Carl; Duggan, Stephen)
- In <https://www.voced.edu.au> dated 30 July 22

### राष्ट्रिय व्यावसायिक योग्यता प्रणालि (**NVQF**) ले कसरी सहयोग गर्छ

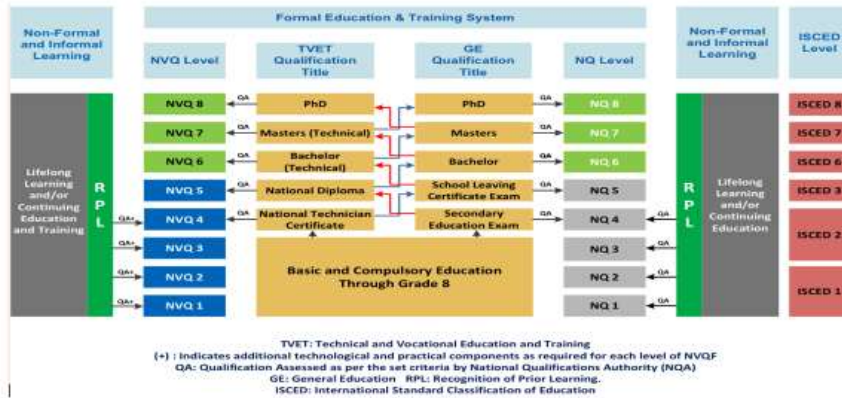
- नेपाल सरकारले तयार गरेको राष्ट्रिय व्यावसायिक योग्यता प्रणालि (**NVQF**) का महत्वपूर्ण व्यवस्थाहरु
- तह १ देखि तह ८ सम्मको व्यवस्था
- हरेक तहमा अन्तर्राष्ट्रिय अभ्यास अनुसार तह निर्धारक (**Level Descriptors**) को व्यवस्था
- हरेक तहमा अन्तर्राष्ट्रिय अभ्यास अनुसार तह सिकाई परिणाम (**Learning Outcomes**) को निर्धारण, फलस्वरूप
  - एउटै मापदण्ड तथा एउटै पाठ्यक्रम
  - एउटै योग्यताका प्रमाणपत्र तथा मान्यता
- यस्ता तह निर्धारक (**Level Descriptors**) तथा सिकाई परिणाम (**Learning Outcomes**) लाई उस्तै तह भएका राष्ट्रिय व्यावसायिक योग्यता प्रणालि (**NVQF**) लागु गरेका देशहरुले ग्राजुएटको प्रमाणपत्र मान्यता दिने सम्भावना हुन्छ
- यस व्यवस्थाले स्थानीय, प्रदेश, राष्ट्रिय अन्तर्राष्ट्रिय रोजगार बजारमा रोजगारीको संभावना बढाउँछ

राष्ट्रिय व्यावसायिक योग्यता प्रणालि (NVQF) ले कसरी सहयोग गर्छ...

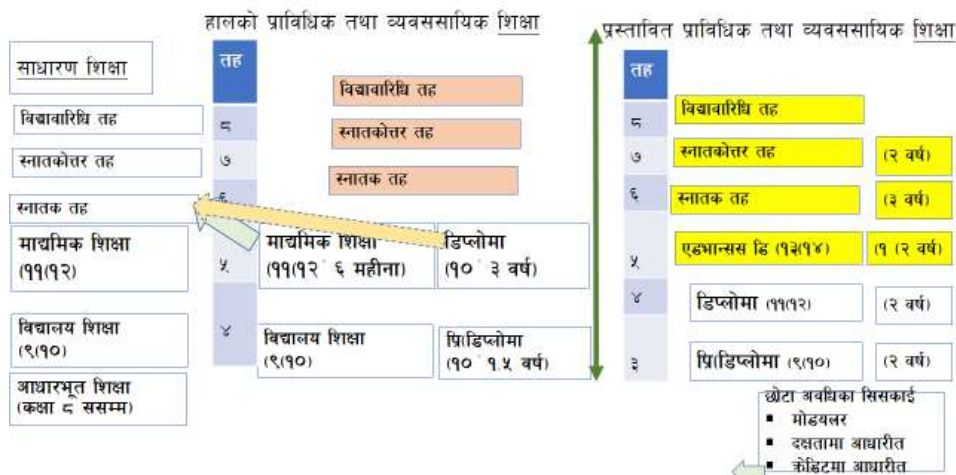
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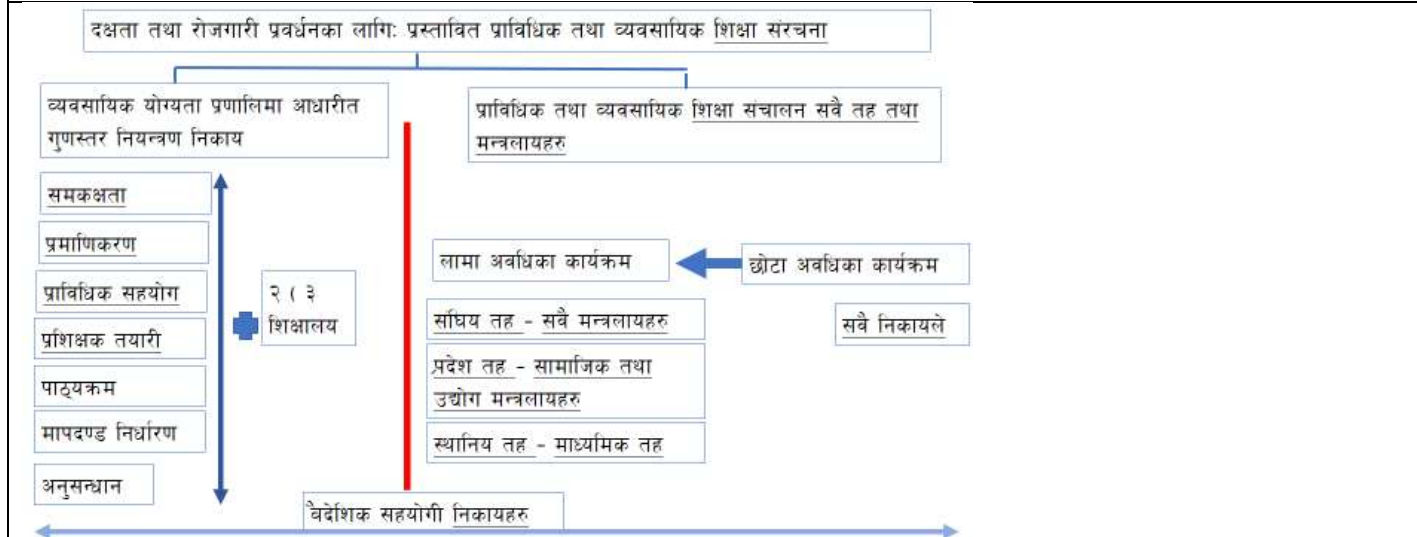
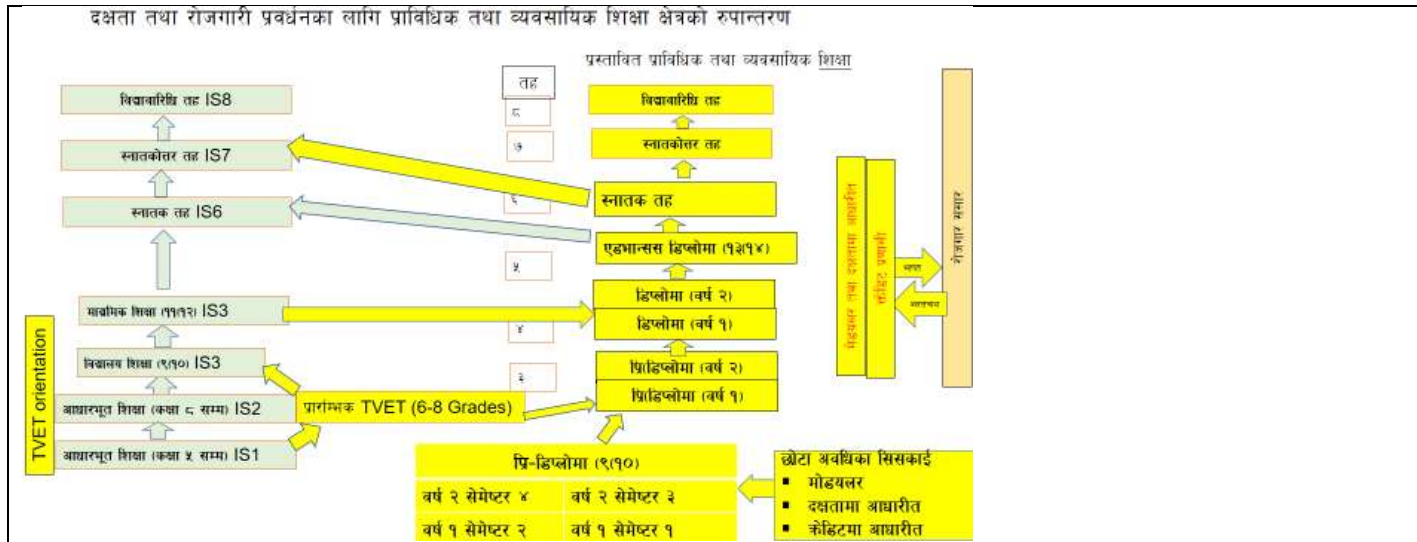
- ग्राजुएटलाई उच्च अध्ययन तथा साधारण शिक्षा तर्फ मार्ग प्रसस्त गर्छ
- छोटो अवधि वा अनौपचारिक क्षेत्रमा सिकेका दक्षतालाई औपचारिक मान्यता मार्फत अग्र अध्ययन तथा साधारण शिक्षा तर्फ जान मार्ग प्रसस्त गर्छ
- फलस्वरुप कुनै योग्यताका लागि आवश्यक पर्ने पुरै समय खर्च गर्नको सट्टा क्रेडिट व्यवस्थापन मार्फत आशिक योग्यता मार्फत आफ्नो सुविधा अनुसार अग्र अध्ययन मार्ग प्रसस्त गर्छ

नेपाल सरकारलेवाट तयार राष्ट्रिय व्यावसायिक योग्यता प्रणालि



दक्षता तथा रोजगारी प्रवर्धनका लागि: प्राविधिक तथा व्यवसायिक शिक्षा क्षेत्रको रुपान्तरण





सुधारका सन्दर्भमा केहि मार्गदर्शक विषय वस्तुहरू:

- सुधार उन्मुख गरिखाने शिक्षा
  - स्वदेशि तथा अन्तराष्ट्रिय रोजगारी
- संविधान तथा योजनाहरूमा भएका व्यवस्था
- शैक्षिक संरचनामा परिवर्तन
  - मोड्युलर, दक्षतामा आधारित, क्रेडिटमा आधारित
  - बहुवर्गमन तथा आगमन (multi exit/ entry)
  - छोटा अवधिका तालिम लामो अवधिको अध्ययनको अंश
- राष्ट्रिय व्यवसायिक योग्यता प्रणालिमा आधारित
- हालको उपलब्धि कायम गर्ने
  - संस्थागत अनुभव तथा विशेषज्ञता
  - हलको जनशक्ति अनुभव तथा विशेषज्ञता



#### सहभागिहरुबाट आशा गरिएका ससुझावहरु

- नेपालको सन्दर्भमा प्राविधिक शिक्षाको उद्देश्य के भएको देखिन्छ र के हुनु पर्दछ ?
- रोजगारीको लागि तथा स्थानिय तहको आवश्यकता पूर्ती गर्ने
- उच्च अध्ययनको निमित्त
- हाल संसञ्चालनमा रहेका प्राविधिक शिक्षालय / विद्यालयमा भर्नाको संख्या (Enrolment) बढाई हाल उपलब्ध सिससटहरुको अधिकतम उपयोग कसरी बढाउने?
- लक्ष्म स्विकृत भएको सससन्दर्भमा माथिल्लो तहमा अध्ययन गर्न पाउने अवसर (Vertical expansion) र समानस्तरका अन्य विषय अध्ययन गर्न पाउने अवसर (Horizontal expansion) लाई विस्तार गर्न के कस्तो नितिगत व्यवस्था गर्नु पर्ने हुन्छ ?
- प्राविधिक तथा व्यावसायिक शिक्षालाई खासगरी छोटो अवधिको तालीमलाई बजार र उद्योगको माग अनुशार हुने गरी जोड्नको निमित्त हाल स्विकृत NVQ मा कुनै संशोधन (परिमार्जन) आवश्यक हुन्छ कि हुदैन र यो व्यवस्थासंग उद्योगलाई प्रभावकारी ढंगले जोड्नको निमित्त के गर्नु पर्दछ ?
- समावेशीता र पहुचको उचित कार्यान्वयनको लागि के गर्नु पर्ने हुन्छ ?
- प्रभावकारी र नतिजामुखी प्राविधिक तथा व्यावसायिक शिक्षा कार्यान्वयनको लागि रसघ, प्रदेश र स्थानिय तहले सम्पादन गर्ने कार्य अनुरूप कस्तो सस्थागत सरचना उपयोगी हुन सक्छ ?

**Annex 7: Workshop Technical Discussion and Stakeholder's Input  
Sudurpaschim Province (25 & 26 July, 2022)**

<b>Access, Equity and Expansion</b>
<p>Some suggestions to increase access of students in technical stream:</p> <ul style="list-style-type: none"> <li>• The quota system imposed on some technical education should be removed.</li> <li>• Technical education should be made accessible to all, wide publicity about technical education should be done by state, province and union.</li> <li>• Allowing schools to open without adequate physical infrastructure.</li> <li>• Make technical education completely free and practical</li> <li>• Programs of CTEVT and CEHRD should be made one.</li> <li>• Students who have acquired technical education at the lower level should be arranged to study at the higher level as well.</li> <li>• Technical education should be made of international standard.</li> <li>• Based on geography and community needs, everyone can have equal access only if the technical education program is flexible, simple, stable, collaborative, decentralized.</li> <li>• Learning, earning and re-learning environment should be arranged.</li> <li>• The subsistence allowance given to students should be increased.</li> <li>• Emphasis should be placed on making arrangements for class students. Opening a technical school with residential facilities on the basis of geography and needs</li> <li>• Employment should be ensured in coordination with various industries and employers.</li> <li>• The range of technical subjects should be expanded.</li> <li>• Equality should be brought to you. Adjust according to preferences.</li> </ul> <p>Challenges:</p> <ul style="list-style-type: none"> <li>• Technical education being expensive and costly.</li> <li>• Centralization of institutes</li> <li>• Lack of knowledge about the importance of technical education among common parents.</li> <li>• Lack of job security for students who have received technical education.</li> <li>• Lack of effective monitoring and evaluation.</li> <li>• Lack of provision of technical education in higher education.</li> <li>• Due to geographical difficulty.</li> <li>• Lack of skilled and experienced trainers</li> <li>• Lack of necessary equipment for technical education.</li> <li>• Lack of coordination between Demand and Supply.</li> <li>• The curriculum of technical and vocational education is not of international standard.</li> <li>• Non-cooperation with the private sector.</li> </ul>
<b>Quality</b>
<p>Curriculum</p> <ul style="list-style-type: none"> <li>• CEHRD and CTEVT should be similar</li> <li>• Credit Transfer System should be based</li> <li>• Module based (specific) demand</li> <li>• Technical Taskforce should be made Globally Competitive</li> <li>• Applied Subject Module should be separate</li> <li>• Study done in pre-diploma courses should be recognized in the first year of diploma</li> </ul> <p>Infrastructure</p> <ul style="list-style-type: none"> <li>• Government support <ul style="list-style-type: none"> <li>○ Class room</li> <li>○ Lab, hostel</li> </ul> </li> <li>• Under one standard across the country</li> </ul> <p>Tools Equipment</p> <ul style="list-style-type: none"> <li>• Government support</li> <li>• Under defined standards</li> </ul> <p>Training</p> <ul style="list-style-type: none"> <li>• OSU, Instructional Skills Module, Management</li> </ul>

- Job induction training

#### Accreditation

- Giving association only after mapping
- Set standards for grading
- Schools with less than 50% students should be merged
- Poly technical school with different program would be better

#### Efficiency

- Providing quality education
  - Instructor Stability
  - Extra Class Management
- Carrier Counseling
- Job placement
- Agreement of local level job guarantee
- Scholarship number should be increased
- Teachers Performance Test / 5 years

#### Assessment

- Practical knowledge should be increased and should be approached systematically
- Internal / External

#### Certification

- Module based (According to how many modules are passed according to how many modules are required to read occupational curriculum)
- International and National Valid.

#### Other

- One day system (In training)
- For knowledge update, occupational development package should be developed and implemented

### **Management**

#### Will the program be unified or diverse?

- As the current program is being operated through CTEVT and CEHRD, it should be integrated through Technical Education Management Umbrella Act.
- Subject areas to be integrated: curriculum, management, credit hours, evaluation system, verification system, human resource management, financial management etc.
- The implementation of the constitutional provision of free education up to class 12 should be ensured.
- How to manage technical education in federal, provincial and and local?

#### Scope of the Federal:

- Law and policy making, development of integrated certification system, curriculum creation and sharing in extension and resource management etc.
- State level:
- Permit and establishment of technical schools based on need and physical aspect management, conducting and managing standardized exams, monitoring and sharing financial resources.
- Local level:
- Partnership and monitoring in needs identification and operation.

#### How to include the private sector in the decision-making process?

- Federal: Policy formulation regarding private sector participation and policy making on private sector participation as per requirement
- Province: projecting and developing workforce according to the needs of the private sector, ensuring the use of developed workforce, providing an environment for on-site practice in business
- Local level:
- Participation in private sector participation in identifying areas of employment and areas of need

How to improve school management capacity?

- Separate management of technical and mainstream schools (not in the same school but in separate schools)
- By managing educational institutions with residential facilities in a highly technical mode
- By managing manpower according to standards
- Management of technical knowledge and business orientation in the management committee
- By managing the training of teachers and trainers
- By managing the laboratory according to the laboratory standards

How to develop the capacity of related stakeholders to understand technical education based on the principles of technical education?

- Stakeholders (parents/students) need counseling regarding technical education.
- By reforming the curriculum and evaluation system to emphasize practical rather than theoretical aspects of technical education
- By developing demand-based manpower development and supply system based on rationality

Other matters to be improved

- How to increase investment?
  - Through free management with the participation and partnership of three tiers of government up to the secondary level
  - By managing higher education costs on a participatory basis
- By ensuring pro-poor targeted scholarship for participation of all parties
- Utilizing foreign grants by implementing technical assistance and grants with priority

<b>Integration</b>
<p>Problems:</p> <ol style="list-style-type: none"> <li>1. The government should harmonize the curriculum of classes 9-12 under the education and human resource development center and the curriculum of the diploma level program under the CTEVT.</li> <li>2. One authority to govern curriculum development</li> <li>3. Considering the existing practices of other countries when preparing the curriculum under the technical edge</li> <li>4. A provision should be made that the trainees who have received short-term training should not re-study the content they have studied before to receive higher level training/education.</li> <li>5. The National Curriculum of Technical Education will be prepared and implemented.</li> <li>6. Emphasis on practical, experimental curriculum rather than theoretical curriculum to develop 'Garikhane Sikchya'</li> <li>7. To prepare a competency-based curriculum, market study of the related subject area and estimate the required manpower to create market needs and modify them in a timely manner.</li> <li>8. There should be an expansion of institutions providing technical subjects in higher education, teaching</li> <li>9. Revising its definition to change the current understanding of TVET.</li> </ol>
<b>Monitoring and Evaluation</b>
<p>Monitoring</p> <p>Monitoring is the action of monitoring the state of implementation of the national objectives of education, whether the educational program is in line with the target, the problems of the program and finding solutions, giving advice, suggestions and guidance.</p> <p>Problems seen in monitoring: -</p> <ol style="list-style-type: none"> <li>1. After the implementation of federalism, the role of monitoring is reduced</li> <li>2. The role of monitoring at the union, state and local levels is minimal)</li> <li>3. Non-compliance with monitoring,</li> <li>4. Non-development of integrated monitoring system</li> <li>5. Lack of monitoring with plans</li> </ol> <p>Federal:</p> <p>Prepare a joint monitoring mechanism of the Ministry of Education, Department and CTEVT and the said body will create and implement an educational strategy including the educational problems and solutions found in the subordinate bodies</p> <p>Province:</p> <p>Build and implement supervision tools with coordination from district, local level and central</p> <p>District and local level</p> <p>Along with local level, district branches of EDCU and CTEVT coordination by preparing the monitoring mechanism and preparing the school and monitoring the school. Building a plan for the proper deployment and utilization of the school's educational resources, physical aspects, community participation.</p> <ul style="list-style-type: none"> <li>• Class observation and study the external and internal environment of the school and emphasize on some educational improvement aspects.</li> <li>• Building monitoring tools that meet national and international standards.</li> <li>• Arranging monitoring including providing support,</li> <li>• Implementing integrated monitoring system, and developing monitoring system including planning</li> </ul> <p>Evaluation</p> <p>It is what has been achieved is an accounting of whether objectives are being met or not. Evaluation of the first entrance test, after admission, before any educational activity is carried out in all activities from the beginning to the end. Under this, the student admission assessment is based on the internal examination of what the students have understood during the course, the practical test and the final or annual examination system at the end of the academic term.</p> <p>Problems observed in evaluation:</p>

<ol style="list-style-type: none"> <li>1. The party itself has been long and complicated in constructing, testing and publishing the results of thematic questions.</li> <li>2. Non-adherence to proper standards of practical examination</li> <li>3. Non-integration of Pre-Diploma, Diploma and 9-12 level courses.</li> <li>4. Absence or scarcity of materials for practical exercises</li> <li>5. Lack of practical subject trainers or lack of trained trainers</li> <li>6. Diversity in Verification</li> </ol> <p>Suggestions and viable solutions:</p> <ol style="list-style-type: none"> <li>1. Creating more multiple-choice questions and keeping less thematic questions when taking the exam</li> <li>2. To organize a theoretical and practical examination system throughout the country by making national and international standards without giving experimental marks.</li> <li>3. As there are many subjects to be studied, new expertise in the subjects is in accordance with the market for material practice</li> <li>4. Financial management and training management to provide practical availability.</li> <li>5. According to the program, the availability and durability of the subject trainers will be maintained, providing training opportunities and starting new programs or subjects only to the working trainers.</li> <li>6. To distribute certificates only in order to be recognized in the international market for all technical subjects.</li> </ol>
<b>Students</b>
<p>Some of the problems of students</p> <ol style="list-style-type: none"> <li>१। Late arrival of results</li> <li>२। Lack of material for practical</li> <li>३। Problem of books in library</li> <li>४। Syllabus is very difficult</li> <li>५। Lack of skilled teachers in related subjects</li> <li>६। Problem of hostel</li> <li>७। Drinking water and toilet problem</li> <li>८। Problem regarding first aid for students</li> <li>९। Problem regarding science lab, if exists it's of no use</li> <li>१०। Practical field problem</li> <li>११। Lab for practical subjects should be provided</li> <li>१२। Weakness of school administration</li> </ol>

**A. Annex: Bagmati Province (29 30 July, 2022)**

<b>Access, Equity and Expansion</b>	
SN	Present Situation
1	Only 54871 (51%) admissions in 107411 quotas
2	In class 10, 'C' in science and mathematics and 'D+' in English should be achieved to enter the entrance exam.
3	Tendency to drop out in class 11
4	Limited subjects
5	Provision of free education. (4 people out of 45/40)
6	In case of non-operation of programs in some educational institutions,
SN	Suggestions
1	Adjust and relocate technical educational institutions on the basis of need.
2	Streamline the student admission process.
3	Admission of Pre-Diploma in class 11.
4	Diversify the subject.
5	Selection of students for classified scholarships by school/ local level / district level.
6	Wide publicity to increase the attraction towards technical education.

<b>Quality and relevance</b>	
Questions	<ul style="list-style-type: none"> <li>• How Align CEHRD and CTEVT Curricula?</li> <li>• How to ensure development/ Revision of Standard/ Curricula?</li> <li>• How to ensure standards and curriculum development under the ownership of BIAs?</li> <li>• How to improve formative assessment at class level?</li> <li>• How to operationalize Accreditation System?</li> <li>• How to ensure availability of machine and equipment</li> <li>• Instructors Training</li> <li>• On the Job Training</li> </ul>
Standard and Curriculum	<ul style="list-style-type: none"> <li>• Occupational Standards (KSA) and Curriculum should be developed and revised within NVQF</li> <li>• This should be same for all (CEHRD and CTEVT)</li> <li>• Standards for any occupation should be developed or revised in leadership of BIAs</li> <li>• Based on OS developed, Curricula needs to be developed and revised in close participation of BIAs</li> <li>• Curricula should be implemented based on credit hours (credit hours of pre-diploma and diploma should be aligned)</li> <li>• This should be revised within an appropriate time of interval, normally, 3 to 5 years based on industry need and change context (IT, global trend).</li> <li>• Curricula should include certain orientation on entrepreneurship dev.</li> </ul>
Accreditation	<ul style="list-style-type: none"> <li>• A separate authority of Accreditation</li> <li>• Standardization Criteria of Training Schools, Instructors (TVET teachers' qualification framework), Processes, Skill testing, Industrial Workplace etc.</li> <li>• Mapping of existing technical schools</li> <li>• Examine quality of the schools based on standard criteria</li> <li>• Decide and recommend further course of action</li> <li>• Ensure compliance of Standard Criteria for operationalization of the schools/Centers</li> <li>• Ensure effective monitoring and evaluation</li> </ul>
Machine and Equipment	<ul style="list-style-type: none"> <li>• Ensure minimum requirement of machine and equipment based on training standard developed by accreditation authority;</li> <li>• In addition, close partnership with BIAs for latest machine and equipment;</li> <li>• Provision of certain incentives need to create for BIAs</li> </ul>
Instructors	<ul style="list-style-type: none"> <li>• Ensure Minimum number of qualified (skills and industry experienced) instructors</li> <li>• Ensure career path;</li> <li>• Training and exposure (industry and global practices);</li> </ul>
Workplace based Learning (WBL)	<ul style="list-style-type: none"> <li>• WBL should be based on Standard developed by BIAs;</li> <li>• Mandatory provision of OJT/technical Internship/Apprenticeship Training)-duration could differ based occupation and industry requirement;</li> </ul>
Employment	<ul style="list-style-type: none"> <li>• Post training job placement facilitation for wage employment;</li> <li>• Job Fairs;</li> <li>• Render required supports (financing, business plan development and others) for entrepreneurship development (self-employment)</li> </ul>
Labor market: major problems	<p>Skill Gap &amp; Mismatch:</p> <p>Skills needed by industrial establishments</p> <ul style="list-style-type: none"> <li>▪ The skills, knowledge and behavior required in human resources,</li> <li>▪ Generated from existing training programs</li> <li>▪ It is found that there is no or different in the human resources</li> </ul>

and challenges	Availability of LMI <ul style="list-style-type: none"> <li>▪ # Labor market data and information</li> <li>▪ # (LMI-Labor Market Information)</li> </ul>	
<b>Management</b>		
<b>SN</b>	<b>Problems</b>	<b>Solution</b>
1		Infrastructure Development
2		Management of qualified and skilled manpower (job permanency)
3		Quality assurance: <ul style="list-style-type: none"> <li>a) Syllabus</li> <li>b) Training</li> <li>c) Examination</li> </ul>
4		Institutional Capacity Development; Equivalency Arrangement
5		LMIS (Labor Market Information System)
6		Coordination with Industrialists and Businessmen and Cooperation
7		Partnership (Federal, Provincial and Local) (PPP)
8		Management of Sufficient Investment
9		Fiscal Sustainability



<b>Integration, Governance and Monitoring</b>		
<b>SN</b>	<b>Problems</b>	<b>Solution</b>
1		Governing policy and planning should be arranged and be implemented both for TEVT and CTEVT
2		Under the title of the program, it should be planned with relative funds and also for the quality.
3		Union, state and local governments should coordinate and monitor according to their respective responsibilities. Understanding each other's responsibility and cooperating with each other.
4		Participating the private sector in policy making at the center, state, and local level.
5		Based on the needs of the market, the vital need of participation of the private sector in curriculum, training and certification development is seen.
6		Workplace based training program according to the demand of the market to conduct training on the basis of operating from the private sector
7		Managerial committee of schools operated by TEVT, CTVEV should be provided with practical based training. Where, # Physical facility (building, lab and lab materials) # Teacher participation in policy formulation and implementation # Awareness to stakeholders at the local level about student enrollment and the future of the program.
8		Program permission of CTEVT. The responsibility of operation and management should be given to local government officials.
<b>Students</b>		
<b>SN</b>	<b>Problems</b>	<b>Solution</b>
1	Full information should be given about the admission to this stream,	
2	It seems that this stream is thought of only up to class 12. If the parents have to pay the expenses after 12th grade, how much it will cost should be informed in advance	After class 12, it would be better if there is a system to continue in this subject till Master
3	Lack of subject knowledge is a problem related to students	
4	Lack of teachers/instructors Lack of laboratories/labs	
5	No hostel	
6	Library not organized	
7	Lack of extracurricular activities	
8	Course not completed on time Result not published on time	

9	Basic (Physics/Chemistry/Math) course is complicated	
10	Not focused on skills.	

## B. Annex: Province 1

<b>Access, Equity and Expansion</b>	
<p>Access:</p> <ul style="list-style-type: none"> <li>Access to English Medium, Bridge Course</li> <li>Provision of scholarships</li> <li>Assurance of self-employment</li> <li>Provision of necessary facilities</li> <li>Physics, Chemistry and Mathematics should be narrowed.</li> <li>Should be related to higher education.</li> <li>Based on local needs</li> <li>Not having many options in choosing subjects at the upper level.</li> <li>Increase in fees and decrease in the number of colleges.</li> <li>Lack of job security.</li> <li>Lack of clear policy.</li> </ul> <p>Equality</p> <ul style="list-style-type: none"> <li>Provision of technical preparation work</li> <li>Provision of a gender friendly school environment</li> <li>Provision of disabled friendly and women friendly structures</li> <li>Lack of awareness of diversity</li> <li>Employability and educational qualifications, but employability first priority</li> </ul> <p>Expansion</p> <ul style="list-style-type: none"> <li>Merging the subject organizations</li> <li>Geography In expanding technical education based on local needs and employment potential should be emphasized.</li> <li>Technical education should be linked with lifelong learning.</li> <li>Development and delivery of on-demand curriculum up to Bachelor's and Master's degrees</li> <li>On the basis of skills test, the opportunity to study at higher level should be provided.</li> <li>Vertical Expansion</li> <li>Life skills should be given importance from the lower level and extended to the upper level</li> <li>Restructuring of the higher education level should open the way for pre-diploma</li> <li>Provision should be made for credit transfer training as well</li> <li>There should be uniformity in the curriculum between technical stream and CTEVT</li> <li>Horizontal Expansion</li> <li>To be able to enter into each other by coordinating the common stream and the technical stream</li> <li>Local needs Market demand Geographical conditions and employment potential</li> <li>The basis should be expanded</li> </ul>	
<b>Quality</b>	
Accreditation	
<b>Why</b>	<b>How</b>
To regulate, manage and facilitate compliance with standards and to ensure quality and equivalence	From central level councils or state level structures
TVET Reasons for low pass rate and measures to improve	
<b>Reason</b>	<b>Ways to improve</b>
Lack of overall schooling and basic knowledge skills To be similar to mainstream education in terms of classroom and school infrastructure and facilitation of learning	Improving the quality of school education, Improving the infrastructure of schools Improve the training process, Reduce theoretical to workable basis of assessment

Selection of trainees cannot be based on merit and interest	
Whether or not it is proper to differentiate the syllabus of Technical Stream and CTEVT	Develop curriculum based on the NQF curriculum A working group including the private sector should prepare and implement the same curriculum for both Technical Stream 11th and 12th which need to be increased can be include OJT Semester System
At the executive level, the arrangement of OJT will be useful or not	Learn by doing technical education and not by reading If OJT done in the workplace or industry, it helps to gain familiarity with the work and gain competence It's easy to get work done and get it done efficiently To make it possible
<b>TLM and curriculum related issues</b>	
TLM available accessible bath being expensive Instructors not being tech-friendly Difficulty in use due to lack of access to technology everywhere Lack of provision and proper management of library in schools Inappropriate use of materials Language difficulty in content	To develop curriculum based on NQF To prepare text book Subsidizing textbooks and making them available free of charge Developing a library with adequate materials in all schools by preparing standard standards Instructor training in selection and use of reference materials
Availability of teachers	

<b>Problems</b>	<b>Solutions</b>
<ul style="list-style-type: none"> <li>• Not getting a qualified instructor in all subjects (Master's degree holder unavailable)</li> <li>• Not getting the training done</li> <li>• Ensuring the instructor's job</li> <li>• Lack of training</li> <li>• Instructors not being tech-friendly</li> <li>• No exposure</li> </ul>	<ul style="list-style-type: none"> <li>• Projecting the future and creating permanent posts according to the number of students</li> <li>• To perpetuate the service of the coach</li> <li>• Uniformity in sole facilities</li> <li>• Teaching training</li> <li>• Exposure; Visiting and training</li> <li>• Defining the meaning of Career path clear (career counseling)</li> </ul>
Instructors situation and trends	
<b>Situation</b>	<b>Solution</b>
<ul style="list-style-type: none"> <li>• Technical stream Permanent instructor</li> <li>• There is a permanent post in CTEVT</li> <li>• In most of the subjects in Technical stream, minimum experience of one year is considered</li> <li>• There is a problem of sustainability in all places</li> </ul>	<ul style="list-style-type: none"> <li>• Create rank based on number of students and subject</li> <li>• To be given only based on operational needs of the school</li> <li>• To provide subsidy including all infrastructure while running the school</li> <li>• Permanent through Service Commission</li> </ul>
<ul style="list-style-type: none"> <li>• An effective mechanism for recruiting trainers</li> <li>• Provision of service commission</li> <li>• Develop mechanisms and processes as per the syllabus approved by the Service Commission</li> <li>• Operate from central or state level</li> </ul>	

What to do to improve the competence of trainers	
Situation	Solution
<ul style="list-style-type: none"> <li>Given for CTEVT is not enough</li> <li>Technical Stream is not given</li> </ul>	<ul style="list-style-type: none"> <li>Conducting training in all provinces with the technical support of TITI</li> <li>Facilitating higher qualification</li> <li>Conduct workplace or industry based training for practical exercises</li> </ul>
Need of license	<ul style="list-style-type: none"> <li>Teaching art is also a profession</li> <li>It can develop the most qualified and competent trainers</li> </ul>
Physical infrastructure	<ul style="list-style-type: none"> <li>A different classroom arrangement</li> <li>The laboratory is accessible to all students</li> <li>There should be no technical difficulty in running the laboratory</li> <li>To keep information about the newly invented technologies, all educational institutions and schools should build IT labs</li> <li>Adequate consumables</li> <li>Arrangements including capacity building of staff working in the laboratory</li> </ul>
What improvements should be made in practical training?	<ul style="list-style-type: none"> <li>In a learning environment by converting knowledge into skills</li> <li>Facilitation by instructor</li> <li>Group work and presentation</li> <li>Personal report</li> <li>Field studies and reports</li> </ul>
What would be the workplace-based training model?	<ul style="list-style-type: none"> <li>Cost sharing</li> <li>Full government investment</li> </ul>
How to manage OJT opportunities	<ul style="list-style-type: none"> <li>OJT locations or institutions to be updated annually by the school or school</li> <li>Arrange for evaluation by internal and external supervisors</li> <li>Schools should provide adequate minimum preparation and orientation</li> <li>Providing minimum lunch/meal expenses to trainees</li> </ul>
Evaluation and Certification	
Need to improve <ul style="list-style-type: none"> <li>Formative evaluation</li> <li>Evaluation of the instructor by the student is essential</li> <li>Skill test</li> <li>In the exam system and question</li> <li>Internal evaluation</li> </ul>	Manner of solving <ul style="list-style-type: none"> <li>Evaluating by solving problems</li> <li>Developing Tools</li> <li>Practical and on-the-job training</li> <li>Grading based on performance</li> <li>Improving the examination environment by external monitoring</li> </ul>
For quality improvement	
The problem <ul style="list-style-type: none"> <li>Lack of infrastructure Lack of qualified trainers teaching or training</li> <li>Examination system Pre-qualification of trainees</li> </ul>	Solution <ul style="list-style-type: none"> <li>Develop physical infrastructure that can be learned through sufficient practice</li> <li>Qualified trainers to increase and improve product and service facilities</li> <li>Focus on technical knowledge skills and conduct training of trainers for the same</li> </ul>

	<ul style="list-style-type: none"> <li>• Prepare test criteria by practice work, increase % of practical test</li> <li>• Reduction in % of theory test</li> <li>• Improving the overall quality of education</li> </ul>
Outputs	<ul style="list-style-type: none"> <li>• Wide publicity and facilitation in selection to give short term training only to those who need it</li> <li>• Couple income growth with the job market</li> <li>• Increase the number of scholarships for long-term programs</li> <li>• Timely improvement in learning and assessment process</li> <li>• Implementation of Advance diploma course</li> </ul>
Improve efficiency	<ul style="list-style-type: none"> <li>• Determination of enrollment quota according to the capacity of the institution conducting the program</li> <li>• Improve the training process</li> <li>• Providing reference materials and textbooks free of cost</li> <li>• Continuously evaluate and document</li> <li>• Establishing an environment for continuous use of skills institutionally (school, industry, office)</li> <li>• Conducting chance exams during</li> <li>• Prioritize and monitor TVET certificate holders for employment</li> <li>• Managing seed capital to create entrepreneurs</li> </ul>
Relevance	<ul style="list-style-type: none"> <li>• It is difficult to keep industrial trainees as they have to go elsewhere for training and work</li> <li>• Identifying and prioritizing potential industries at national and state level</li> <li>• Develop curriculum according to industry needs</li> <li>• Conduct refresher training of trainers on the job or in industry</li> <li>• Conducting specific types of TVET programs for employment (long term and short term) according to the potential and needs of the industry.</li> <li>• To represent organizations like CNI, FNCCI of industrialists in OJT coordination committee</li> <li>• Coordinating with business people</li> </ul>
<b>Apprentice's skills match the industry market but lack of efficiency due to work specialization</b>	
The problem It takes 10 years to change the curriculum, technology changes day by day, skilled people migrate abroad	Solution <ul style="list-style-type: none"> <li>• Because of changing the curriculum of TVET, coordinating with industry to ensure employment for skilled manpower</li> </ul>
Increase income	<ul style="list-style-type: none"> <li>• Coordinating to develop industry wise curriculum</li> <li>• Develop industry-friendly policies to expand employment by developing the industry's capabilities</li> <li>• Investment in the industry should be of a sustainable type</li> <li>• To increase the output and productivity of the industry by producing quality trainees</li> </ul>
To increase income	<ul style="list-style-type: none"> <li>• Work related skills development</li> <li>• Development of quality technical knowledge to create self-employment</li> <li>• Market and investment assurance</li> </ul>

	<ul style="list-style-type: none"> <li>• To improve skills and efficiency as per the invention of tools and equipment used in industrial business.</li> <li>• Combine study and earn program with practical exercises</li> </ul>
Reasons for low employment rate	<ul style="list-style-type: none"> <li>• Less expansion of industry business</li> <li>• Experienced manpower is more efficient than trained</li> <li>• Lack of coordination between supply and demand (not producing quality manpower according to market demand and conditions)</li> <li>• Lack of income of trained persons</li> <li>• Pursuing higher education studies</li> <li>• Relatively low soles</li> <li>• Fewer employment opportunities</li> <li>• Growing interest in higher education</li> </ul>
To increase the employment rate	<ul style="list-style-type: none"> <li>• Expansion of industry business</li> <li>• Arranging experienced training manpower</li> <li>• Arranging courses and training to produce quality manpower according to market demand and conditions</li> <li>• Arranging minimum wages according to merit</li> <li>• Organizing job fairs</li> <li>• To develop competencies as per NQF</li> </ul>

#### **Governance**

Organization: - The present rules are governed by the provisions of the State Council as the Executive Head, ex-officio members, and the arrangements have been made by the Union

State: - TVET State Council as per following

President – Education governing Minister (Ministry of Education)

Under Secretary - TVET State Office Head

Other areas to be represented:

Secretary /	Ministry of Social Development, Education Branch Chief	
General	Related thematic Ministry	# Industry
Branch Head	Ministry of Industry and Commerce	# Employment
	Regional Subject Expert	# Labor
	Technical Education School	# Tourism
	Any two heads of Local Level	# Health
	Social Development Committee Organizer	

Local: - TVET Coordination Committee

Chief: Palika Chief

Under Secretary: Education Chief

Member: Deputy Head

Member: Social Development Committee Coordinator

Engagement: Technical Education Chief

Industry Commerce Association Representative

Training Provider Organization Representative

Chief Administrative Authorized

Subject Expert

Federal Council: - Determination of standards of schools

Prepare national curriculum format and curriculum framework

Prepare quality check report and determine future strategy

Examination and distribution of certificates/verification

State Council: - Technical schools permit, operation and management

Coordination of all types of schools

Budget Management

Monitoring, Inspection

### Capacity Development

#### Local Unit: Grant Management

Monitoring, Inspection, Supervision  
Conducting Short Term Training  
Coordination and Support in Skill Testing  
Recommendation for Technical Education Permit

#### Presentation

##### Federal Council

To make an additional provision that the executive head of the provincial council will be an ex-officio member in the current law and regulations

##### State Council

Chairman: Minister of Social Development  
Secretary: Head of the Provincial Office  
Other representations:  
Secretary and Head of Division of the concerned Ministry  
Social Development Committee Chairman  
Ministry of Social Development Secretary or Head of Education Division  
Federation of Commerce and Industry  
Area subject matter experts  
Technical schools  
Among the local level heads, 2 people including 1 woman

##### Local TVET Coordinating Committee

Chairman: Head of local municipality  
Secretary: Head of Education Branch  
Member: Deputy Head of Municipality  
Member: Social Development Committee Coordinator  
Member: 1 person from technical schools  
Member: Representative of Industry and Commerce Association  
Member: Training provider organization  
Member: Chief Administrative Officer  
Members: Subject matter experts

##### Jurisdiction of the Federal Council

Setting standards for schools  
National Curriculum Format and Curriculum Framework preparation  
Quality test report prepared and future  
Determine strategy  
Examination Conduct and Certification  
Budget management  
Skill test  
Provisions regarding appointment of teachers

##### Scope of the Provincial Council

Licensing, operation and management of technical schools  
Coordination of all types of schools  
Budget and program management monitoring, monitoring Capacity development  
Coordination and Management of Examinations

##### Scope of Local Coordinating Committees

Budget management and disbursement of schools and trainers  
Monitoring, Inspection and Supervision  
Conducting short term training  
Coordination and assistance in skill testing  
Recommendation for technical school permit  
Teacher management on immediate contract for vacant teacher posts

### **Integration**

- How can the development and revision of standards and curriculum based on National Qualifications Framework be ensured?

<ul style="list-style-type: none"> <li>• National Qualification System Standards and TVET Curriculum Development should be done in an integrated manner, so that products are produced according to the standards.</li> <li>• In order to make the curriculum timely and practical, there should be an assurance of construction and modification in accordance with market demands and needs.</li> <li>• Integrating Technical Stream (CEHRD) and CTEVT Syllabus,</li> <li>• Consolidating the syllabus of both education (CEHRD and CTEVT) into one semester system.</li> <li>• How can short courses be integrated into the long-term program curriculum?</li> <li>• Accreditation of short-term training and incorporating it into the system on the basis of modular batches or lessons.</li> <li>• How can multiple provisions for the same qualification be facilitated?</li> <li>• The semester system should ensure exit and entry on the basis of standard assessment based on modular way and such provisions should be applicable in the market system and industry but should have verifiable qualification for standard qualification, in this way the trainees who have left the training and gone to work will be counted in OJT based on the work done in the respective field. What can be done?</li> <li>• How can the recognition of TVET qualifications be ensured?</li> <li>• Applying the recognition of TVET qualifications to the criteria based on the national qualification system</li> <li>• How can the problem of identification of TVET passed trainees be addressed?</li> <li>• Removing the pre-diploma program and incorporating it into a single system</li> <li>• Ensuring the identity of the produced manpower according to the demand of the national and international market.</li> </ul>
<p><b>Management</b></p> <p>Capacity development of school management</p> <ul style="list-style-type: none"> <li>• Orientation of the existing education related laws to the business</li> <li>• To make employees aware of their duties and rights</li> <li>• Providing parenting education to parents</li> <li>• Making Teacher Parents Association functional</li> <li>• Making Q A responsible</li> </ul>
<p>What kind of training should be provided to improve management?</p> <ul style="list-style-type: none"> <li>• Short term capacity development training for students, teachers and parents</li> <li>• 1 month PR management training</li> <li>• Refresher trainings from time to time</li> </ul>
<p>Instructor quality</p> <ul style="list-style-type: none"> <li>• Selection of qualified trainers</li> <li>• Clear terms of service and convenience and stability</li> <li>• Provision of additional facilities in remote areas</li> <li>• To conduct programs related to training and capacity development</li> </ul>
<p>OJT</p> <ul style="list-style-type: none"> <li>• Arrangement of financial facilities including lunch for the participants in OJT</li> <li>• Linking OJT to productive work</li> <li>• Effective inspection and monitoring by relevant agencies</li> <li>• Orientation arrangements and effective coordination for organizations, industries, firms doing OJT</li> <li>• There should be international standards for evaluation</li> </ul>
<p>Employment</p> <ul style="list-style-type: none"> <li>• Allowing/sanctioning technical education only on the basis of market or need</li> <li>• Ensuring employment of technical manpower</li> <li>• Create an environment where work is respected</li> </ul>
<p>Budget assurance to schools</p> <ul style="list-style-type: none"> <li>• Since it is the state policy that education up to secondary level is free, the union, state and local levels should manage the necessary budget for technical education up to class 12.</li> <li>• To manage the budget so that the association has 50%, the state 20% and the local level 30%</li> </ul>



<ul style="list-style-type: none"> <li>To manage technical education operations through a one-door system from one of the Education and Human Resource Development Centers or CTEVT.</li> </ul>
MP Presentation
<ul style="list-style-type: none"> <li>TVET act need to be prepared in the spirit of the constitution</li> <li>Based on TVET, prepare provincial TVET act and policies</li> <li>Prepare Nepal's standards based on international TVET standards / NVQF practices</li> <li>Open educational path in TVET up to master and doctoral</li> <li>Prepare workforce based on market needs</li> <li>Implement short term training by authorized agency</li> <li>Link informal/ traditional skills with formal education</li> <li>Establish autonomous TVET authority in the province and units at local level under provincial TVET authority</li> <li>Financing, 10% by local levels, 20% by province level and rest federal level</li> <li>At least on technical schools in each local level to prepare local level workforce</li> <li>Coordination mechanism in TVET Act to coordinate all the three levels.</li> </ul>

### C. Annex: Gandaki Province (21-22 August, 2022)

Access, Equity and Expansion		
SN	Problems	Solutions
1	Student Enrollment Issues <ul style="list-style-type: none"> <li>Course complexity,</li> <li>lack of mapping of institutions,</li> <li>expensive fees,</li> </ul> The admission system is impractical.	<ul style="list-style-type: none"> <li>Keeping in mind the complexity of the curriculum, non-essential subjects including science should be simplified without making them mandatory.</li> <li>should be mapped on the basis of employment opportunities and not competitively;</li> <li>Fees should be made affordable.</li> <li>Student admission procedure should be simplified.</li> </ul>
2	Technical school / institutes <ul style="list-style-type: none"> <li>Non-implementation of merit system,</li> <li>lack of easy access,</li> </ul> Non-uniformity in time period.	<ul style="list-style-type: none"> <li>Compulsory implementation of merit system,</li> <li>Ease of access should be provided,</li> <li>There should be consistency over time.</li> </ul>
3	Gender Equality and Social Inclusion (GESI) <ul style="list-style-type: none"> <li>Classified quotas may not always be met,</li> <li>Not receiving the recommendation for the scholarship.</li> </ul>	<ul style="list-style-type: none"> <li>Under the classified quota, there should be a provision to fill the unfilled quotas through general admission.</li> <li>Organized scholarships at the regional and local levels.</li> </ul>
4	Objectives of TEVT: <ul style="list-style-type: none"> <li>To produce middle level technical manpower,</li> <li>To provide opportunities for higher studies after completing certain qualifications,</li> <li>Therefore, both employment and educational qualification are the objectives of TEVT.</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of institutions only by ensuring employment,</li> <li>Establishment and capacity development of institutions as per need,</li> <li>Provision of qualified trainers,</li> <li>Stability of coaches/assistant coaches,</li> <li>Course (Horizontally, Diagonally, Vertically),</li> <li>hostel arrangement,</li> <li>Arrangement of Workshop/Lab.</li> </ul>
5	Relevance: <ul style="list-style-type: none"> <li>Placement Unit and Counselling,</li> <li>Enterprise, Advising and Partnership Committee,</li> <li>Arrangement of Internship,</li> <li>The relationship between academia and industry professionals.</li> </ul>	

Quality		
SN	Problems	Solutions
	<p>Institutions and programs need to be accredited. This creates trust in institutions and programs conducted by institutions.</p> <ul style="list-style-type: none"> <li>• A clear standard has not yet been made.</li> <li>• Making legal arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare a directory with Criteria, Indicators, discuss with the stakeholders and encourage the programs conducted by the organization or organization to be accredited,</li> <li>• Criteria should include the physical infrastructure available in educational institutions, availability of trainers, trainee support programs, agreements between educational institutions and industry, collaboration, regular study research, quality improvement plan management, etc.</li> </ul>
	<p>The passing rate of trainees is low.</p> <ul style="list-style-type: none"> <li>• Admission standards are weak</li> <li>• Lack of complexity and uniformity in curriculum</li> <li>• Lack of skilled trainers with high turnover</li> <li>• Annual Evaluation System</li> <li>• Linguistic problems</li> </ul>	<ul style="list-style-type: none"> <li>• Encouraging higher grade students to enroll,</li> <li>• Arranging special classes for low grade students,</li> <li>• simplifying the curriculum,</li> <li>• Developing and revising the curriculum so that it is not mandatory for those who want to enter the world of work to study the subjects of chemistry and physics only for the trainees who want to develop their academic skills,</li> <li>• There should be a provision for refresher training incentive allowance for trainers and a permanent provision.</li> <li>• There should be a formative assessment semester examination system</li> <li>• The content of technical subjects should be developed in Nepali subjects</li> </ul>
	Instructor's management	<ul style="list-style-type: none"> <li>• The number of instructors is low, the number of temporary, contract available is high</li> <li>• Psychological impact of permanent and temporary</li> <li>• The number of instructors is less in proportion to the number of students</li> <li>• Entry into service without training and license</li> <li>• Less competition in the selection of coaches</li> </ul>
	<p>Curriculum Quality of Teaching Learning Materials (TLM).</p> <ul style="list-style-type: none"> <li>• To determine equivalence and maintain quality as the syllabus varies</li> <li>• Confusion in the understanding of common people due to diversity in the organization</li> <li>• OJT is not in all programs</li> </ul> <p>Teaching learning materials and textbooks are not relevant and available.</p>	<ul style="list-style-type: none"> <li>• Creation and implementation of integrated curriculum.</li> <li>• Maintain consistency</li> <li>• OJT should be arranged in all kinds of programs.</li> <li>• Textbooks and teaching materials should be developed.</li> </ul>
	<ul style="list-style-type: none"> <li>• Physical infrastructure</li> <li>• The program will be run without the provision of minimum infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• Classrooms, laboratories and educational equipment should be arranged</li> <li>• Availability of coaching staff</li> <li>• Provision of educational learning materials</li> <li>• Provision of essential infrastructures including drinking water and toilets</li> <li>• Arrangement of land playground for practical exercises,</li> </ul>

		<ul style="list-style-type: none"> <li>Residential facility should be provided</li> <li>The training class should have technology-friendly experimental materials and the laboratory management should be state-of-the-art.</li> </ul>
	<p>A workplace-based training model</p> <ul style="list-style-type: none"> <li>The training system could not be connected with the workplace, the work of teaching and learning in educational institutions was more like general education</li> <li>Failure to adopt student-centered teaching methods</li> </ul>	<ul style="list-style-type: none"> <li>Student-centered teaching methods should be used.</li> <li>Institutional agreements should be made with the industry and business according to the program of the educational institution,</li> <li>Provision of OJT in all program,</li> <li>Conducting Industrial Apprentice Training,</li> <li>Easy access to industry for hands-on practice</li> <li>Using industrial workers as resource persons</li> <li>Conduct job fair, career fair program from time to time</li> <li>Arrangement of Exposure Visit for Trainer Trainees.</li> </ul>
	<p>Evaluation and Certification</p> <ul style="list-style-type: none"> <li>Training methods tend to be more traditional</li> <li>Failure to adopt student-centered teaching methods</li> <li>Theoretical and practical assessment is not objective</li> <li>Lack of trainer evaluation system by trainees</li> <li>Internal assessment of class 11</li> </ul>	<ul style="list-style-type: none"> <li>Competency based evaluation system should be implemented.</li> <li>Since it is a technical subject, student-centered teaching methods should be used.</li> <li>Arrangements should be made to show the trainees by doing Hands on Practices in the evaluation of practical exercises.</li> <li>Using advanced methods of participant evaluation.</li> <li>There should be a board exam arrangement in class 11 as well.</li> </ul>
	<p>Governance</p> <ul style="list-style-type: none"> <li>The budget of the related title has been spent elsewhere</li> <li>Publication of results</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring should be done to see if it is spent on the specified topic.</li> <li>The result should be published within 3 months of the examination</li> <li>The role of external examiner should be improved.</li> </ul>
<b>Management</b>		
<b>SN</b>	<b>Problems</b>	<b>Solution</b>
1	<p>Physical</p> <ol style="list-style-type: none"> <li>Lack of suitable classrooms and buildings</li> <li>Lack of suitable furniture</li> <li>Labs, devices, equipment and other necessary materials,</li> <li>Fields and other facilities</li> </ol> <p>Hostels, drinking water, toilets</p>	<ul style="list-style-type: none"> <li>Managing the necessary resources in partnership with the Union, State, local level and related organizations.</li> <li>Proper management of schools/educational institutions that do not have the necessary infrastructure</li> <li>Proper management of schools/educational institutions that do not have the necessary infrastructure.</li> </ul>
2	<p>Human Resources</p> <ul style="list-style-type: none"> <li>Students</li> <li>Trainers</li> <li>Non-Teaching Staff</li> </ul> <p>SMC</p>	<ul style="list-style-type: none"> <li>To promote technical education.</li> <li>There should be more service facilities to increase the attractiveness of the profession.</li> <li>Managing the necessary manpower by creating an organizational structure</li> <li>The recruitment process should be simple and transparent.</li> </ul>

		<ul style="list-style-type: none"> <li>To represent persons related to technical matters in SMC.</li> </ul>
3	Economic	According to the organizational structure, the amount required to make the union, state, local level and related organizations responsible will be 40%, 30%, 20% and 10% to arrange the expenditure burden.
4	The responsibility and accountability	<ul style="list-style-type: none"> <li>To arrange a separate education administrator to look over technical</li> <li>Making legal arrangements to make the local level more responsible for monitoring and supervision</li> <li>In relation to admission, the local level will facilitate the process by providing scholarships on the basis of standards education acts.</li> </ul>
5	Establishment of school without research/mapping	<ul style="list-style-type: none"> <li>Having adequate infrastructure, education system. Schools should be established only on the basis of maps and in-depth study.</li> <li>Make adjustments based on the number of students, subjects, new students and needs.</li> </ul>
<b>Integration</b>		
<b>SN</b>	<b>Problems (Technical Stream and CTEVT Course)</b>	<b>Solution</b>
	Standards and Curriculum Development and Revision	
1	9-12, Pre-Diploma and Diploma levels have different curriculum development institutions	<ul style="list-style-type: none"> <li>Integration of curriculum development organizations</li> </ul>
2	Variety of courses, variety of recognition, variety of course duration	<ul style="list-style-type: none"> <li>Integrated/same curriculum creation, self-implementation, same time period</li> </ul>
3	Higher participation of academic and technical manpower in curriculum development	<ul style="list-style-type: none"> <li>There should be participation of primary technical manpower as well as field technicians and employers in curriculum creation</li> </ul>
4	More priority given to academic courses	<ul style="list-style-type: none"> <li>Different curriculum and evaluation system should be developed for students who are interested in research in technical subjects and students who are interested in skilled professions</li> </ul>
5	Non-uniformity in regulation	<ul style="list-style-type: none"> <li>Should be regulated by a one-door system</li> </ul>
6	Not giving certificate without completing academic course (Mutti entry/Exit)	<ul style="list-style-type: none"> <li>After learning certain skills, they should be allowed to go to work for a certain period of time as needed, and if they want to continue again, further studies in previous qualifications to be given an opportunity. (Farm MGT, Livestock)</li> </ul>
7	Non-inclusion of short-term courses in the academic fund (eg: Plumbing)	<ul style="list-style-type: none"> <li>Making certain subject of diploma course and short-term course of the same subject practical</li> </ul>
<b>Governance</b>		
<b>SN</b>	<b>Problems</b>	<b>Solution</b>
1	The lack of mutual coordination between the three levels of government	<ul style="list-style-type: none"> <li>The legal system of clear division of labor (including duties, rights and responsibilities) between the three governments.</li> </ul>

2	Lack of assurance of minimum criteria for school running technical stream education	
3	Lack of proper supervision and support	
4	Centralized monitoring of administrative mechanisms	<ul style="list-style-type: none"> <li>Monitoring bodies should be established at the provincial level to maintain the quality of the federal government provided by the local level legislation</li> </ul>
5	Lack of equipment for transfer of <<>> local level act	<p>To transfer the authority of the local level.</p> <ul style="list-style-type: none"> <li>For this, the government of the three lower governments should give 50% of the money of the provincial government, 35-40% of the provincial government, and 10-15% of the local government.</li> </ul>
<b>Students</b>		
SN	Problems	Solutions
1	Expectation is not anticipated (false marketing)	<ol style="list-style-type: none"> <li>Consultant</li> <li>Effective human resources.</li> <li>Strict monitoring and implementation of policies from concerned authority.</li> <li>Assurance of job placement for effective manpower.</li> </ol>
2	Delay in result publication/improper Recognition of certificate.	
3	Framework of education.	
4	Aligning of different curriculum.	
5	Scarce in experienced teacher's persistency	
	Disable friendly environment. Accessibility	
6	Nepotism/ favourism	
7	Lack of *Replacement of technical equipment.	
8	Job satisfaction/Job issue, exposure	

#### D. Annex: Karnali Province (25 26 August, 2022)

<b>Access, Equity and Expansion</b>		
SN	Problems	Solution
1	Admission not readily available	<ul style="list-style-type: none"> <li>Management of at least one technical school in each municipality</li> <li>Provision of equitable scholarships</li> <li>Role of local level</li> </ul>
2	Qualification	<ul style="list-style-type: none"> <li>Correspondence between employment and educational qualification</li> </ul>
3	Access to higher education	<ul style="list-style-type: none"> <li>Policy arrangement for higher education studies in the same subject after three years diploma study</li> </ul>
4	Schools are not operating according to geography and population	<ul style="list-style-type: none"> <li>Schools should be allowed to operate based on geography and population</li> <li>Local level adoption</li> </ul>
5	Permission based on access	<ul style="list-style-type: none"> <li>Permit to operate based on need</li> </ul>
6	Subjects according to the needs of the labor market are not conducted	<ul style="list-style-type: none"> <li>The teaching of subjects according to the needs of the labor market should be brought into operation</li> </ul>
7	Employment problem	<ul style="list-style-type: none"> <li>Employment should be guaranteed</li> <li>There should be a coordinating role between educational institutions and industrialists and manpower supply should be managed according to the needs of the labor market</li> </ul>
8	Lack of coordination between labor market needs and produced manpower	<ul style="list-style-type: none"> <li>Manpower should be produced according to the needs of the market</li> </ul>

9	Access to higher education	<ul style="list-style-type: none"> <li>There should be a policy arrangement for higher education studies in the same subject after three years of diploma studies</li> </ul>
10	Increase in wage	<ul style="list-style-type: none"> <li>Coordination with industry professionals</li> <li>Expansion and growth of business</li> </ul>
11	Inability to change subjects for higher education studies	<ul style="list-style-type: none"> <li>Opening the way for higher education studies</li> </ul>
<b>Quality</b>		
<b>SN</b>	<b>Problems</b>	<b>Solution</b>
1	<p>Curriculum</p> <ul style="list-style-type: none"> <li>There is no timely revision of the curriculum.</li> <li>Not fully matching the curriculum of the subject market</li> <li>There is a difference between CEHRD's Technical Stream and CTEVT's Diploma level.</li> <li>Failure to have adequate arrangements for OJT in Diploma level courses.</li> <li>Insufficient availability of TLM and textbooks.</li> </ul>	<ul style="list-style-type: none"> <li>The curriculum should be revised over time.</li> <li>The curriculum of technical education should be relevant to the demands and needs of the present market.</li> <li>CEHRD's Technical Stream and CTEVT's Diploma level curriculum should be the same.</li> <li>Adequate arrangements should be made for Diploma level course OJT.</li> <li>TLM and textbooks should be made available by the institution on time.</li> </ul>
2	<p>Instructor's management</p> <ul style="list-style-type: none"> <li>Lack of skilled and experienced trainers.</li> <li>In the current situation, the process of selection of the permanent coach is not clear.</li> <li>Not being able to get the trainers needed by the organization.</li> <li>Lack of training and training of trainers.</li> <li>Trainers can't last long.</li> <li>Not having a Darvandi Kitan (position permanency) for trainers.</li> </ul>	<ul style="list-style-type: none"> <li>For the provision of skilled and experienced trainers, the services, facilities, position, level of the trainer should be arranged in the laws and regulations and selected procedurally.</li> <li>Trainee qualified, skilled and highly qualified experienced subject trainers should be determined and selected by the Public Service Commission.</li> <li>Skilled trainers needed to increase production.</li> <li>Training and coaching of trainers should be done from time to time.</li> <li>The trainers should be provided with the necessary service facilities to sustain them for a long time.</li> <li>According to the subject and class, the instructor should be made available.</li> </ul>
3	<p>Physical infrastructure</p> <ul style="list-style-type: none"> <li>Lack of adequate and quality management of physical infrastructure and laboratories in technical schools.</li> <li>Technical trainees have not been able to fully improve their quality practical skills in the practical training according to the curriculum</li> </ul>	<ul style="list-style-type: none"> <li>There should be quality management based on physical infrastructure and laboratory requirements.</li> <li>Technical trainees should manage the necessary materials to fully improve the quality of practical skills in the practical training according to the curriculum, develop the profession and business in the market and the trainees should have the opportunity to develop practical skills.</li> </ul>
4	<p>Workplace-based training models</p> <ul style="list-style-type: none"> <li>Lack of development of workplace-based training models.</li> </ul>	<ul style="list-style-type: none"> <li>Developing models and methods of workplace-based training models and preparing and implementing experimental and OJT guidelines, internal and external supervision should be in accordance with the rules.</li> <li>The trainees should be evaluated based on their ability and regularity.</li> </ul>

		<ul style="list-style-type: none"> <li>OJT should be assigned in coordination and agreement with government, non-government and privately run organizations in order to develop thematic skills.</li> </ul>
5	<p>Assessment and certification</p> <ul style="list-style-type: none"> <li>Formative assessment in technical education should not be fully implemented.</li> <li>Absence of instructor in regular lessons.</li> <li>Failure to make necessary improvements in the skill test of students.</li> <li>How to improve the final examination system of students?</li> <li>What are other relevant issues for quality improvement?</li> </ul>	<ul style="list-style-type: none"> <li>In order to improve the formative assessment (constructive assessment), the trainees must take class test, conduct project work to develop their skills and conduct field visit and give homework and provide feedback by accounting the student's achievement.</li> <li>Using logbooks by students to make instructor's presence in regular lectures and review them monthly.</li> <li>It seems necessary to use different methods of training to evaluate the trainer by the trainees.</li> <li>To test the skills, take unit test, monthly test, and quarterly test and collect the results, apply the semester system in technical education.</li> <li>In order to improve the final examination system, complete implementation of the curriculum, preparation of specification table and exam level question paper should be conducted and sub-examination should be conducted by skilled personnel and examination results and elimination of errors in the examination results.</li> <li>In order to improve the quality of technical education, it is necessary to implement the complete and quality study and teaching work by the skilled instructors of the theoretical and practical aspects of the curriculum, efforts should be made to make technical education quality by connecting skill with labor, labor with industry, industry with production, and all three levels of government should support and cooperate in the development of technical education. And the investment should be continuously included in the plan and implemented.</li> </ul>
	<p>Questions:</p> <ul style="list-style-type: none"> <li>Who is responsible for manufacturing TLM?</li> <li>What are the problems in OJT?</li> <li>How will the teachers receive training and what should be included?</li> </ul>	<p>Responses:</p> <ul style="list-style-type: none"> <li>Teacher training based on training manuals. ToT should be held in provincial level and should be systematic.</li> <li>Only one organization should be allowed to manufacture TLM and all school should take the TLM from them.</li> <li>Duplication of program should be stopped.</li> </ul>
<b>Management</b>		
<b>SN</b>	<b>Problems</b>	<b>Solution</b>
1	Increase the number of long-term and short-term programmes	A policy should be made to complete all levels by coordinating trainings at different levels. Training should be timely and employment oriented.

2	High tendency of students to drop out Reasons: The fees of the programs are expensive, employment is not guaranteed, there is no opportunity to get higher education, there is no housing arrangement	It should be made completely free, arrange for chance exams, inform about its importance from the basic level
3	Low employment rate, Reasons: Lack of job market, lack of coordination between market demand and manpower production.	<ul style="list-style-type: none"> <li>• Conducting programs in partnership with the private sector and producing only necessary manpower.</li> <li>• Employing students in productive work while studying.</li> <li>• Giving information about its importance from the basic level.</li> </ul>
4	School Management Capacity Building	<ul style="list-style-type: none"> <li>• Conducting educational observation visits, training, seminars, conferences,</li> <li>• Arrange to have experts in related fields in the committee,</li> <li>• Collaboration with government and non-government organizations</li> <li>• Increased access to and availability of resources</li> <li>• To form a committee free from political interference</li> <li>• Social testing reviews public hearings</li> </ul>
5	Training quality	<ul style="list-style-type: none"> <li>• The government should manage permanent manpower.</li> <li>• That is, capacity building and periodical training should be managed, development of a training mechanism at the provincial level,</li> <li>• Arranging sightseeing tours,</li> <li>• Adequate availability of resources,</li> <li>• To organize various thematic workshops, discussions and seminars etc</li> <li>• Provide training with an emphasis on proactive learning</li> </ul>
6	OJT	<ul style="list-style-type: none"> <li>• Effective monitoring should be arranged,</li> <li>• Making agreements with private industries to ensure that they get job opportunities,</li> <li>• Making resources available</li> </ul>
7	Employment	<ul style="list-style-type: none"> <li>• Timely curriculum should be made, revised from time to time,</li> <li>• To conduct recruitment programs only according to the agreement with the employer and the demand of the market,</li> <li>• Emphasis should be placed on maintaining quality</li> <li>• Emphasis on the production of skilled manpower</li> </ul>
8	Federal, state and local level coordination	The union will work to maintain quality by making policies and laws, the provinces will assist in program implementation, and the local level will implement the program and effectively monitor it, so that the government at that level will adopt the policy arrangement.



9	Monitoring is low and results-oriented	Management, training, resource availability and management, etc., capacity development, training, etc., should be developed and monitored at the federal, provincial and local levels.
10	Ensuring the necessary budget for the school	<ul style="list-style-type: none"> <li>• Arrangement of grants at the union, state and local levels</li> <li>• Parents support,</li> <li>• Support from partner organizations,</li> <li>• Income of the school (including income from productive activities of the school)</li> </ul>
11	Make it real free	<ul style="list-style-type: none"> <li>• Federal, state and local levels take full ownership and manage the budget.</li> <li>• Arranging concessional installments (paying by students themselves)</li> <li>• To manage the “Seed Money”</li> <li>• To arrange technical education grants</li> </ul>
12	Federal, state and local level budget percentage	Federal 50%, state 30% and local level 20% should arrange budget allocation and distribution through local level.
13	Promotion of programs under TECS	The government of Nepal should create and manage position permanency
14	Financial Management System	PPP model
15	There is no uniform system for TVET	The government of Nepal should make policies and laws and the related ministries should only work to maintain quality, or make technical education technical and make the current CTEVT independent and entrust quality maintenance or find an alternative, all levels of government should take responsibility and manage adequate budget, regulatory bodies and implementation. Organizations should be arranged separately
<b>Integration and Governance</b>		
<b>SN</b>	<b>Problems</b>	<b>Solution</b>
1	<p>NVQS and curriculum development</p> <ul style="list-style-type: none"> <li>• Inconsistency in syllabus of 9-12 and CTEVT.</li> <li>• The course is not designed according to labor market analysis.</li> <li>• The course could not be modified according to regular and market demand.</li> <li>• Course Standard of Diploma level should be modified.</li> </ul>	<ul style="list-style-type: none"> <li>• A unified curriculum should be created based on a unified system.</li> <li>• Curriculum should be developed based on labor market analysis.</li> <li>• There should be periodic revisions in the curriculum</li> <li>• Diploma level course should be modified and advanced diploma course should be added.</li> </ul>
2	<p>Technical stream/ integration of curriculum of 9-12 and CTEVT</p> <ul style="list-style-type: none"> <li>• Policy ambiguity in technical education.</li> </ul>	<ul style="list-style-type: none"> <li>• Technical Education Authority should be formed to provide technical education through a single system.</li> </ul>
3	<p>Integrating short-term skill training and long-term programs into the curriculum.</p> <ul style="list-style-type: none"> <li>• Lack of combination of curriculum in short term training and long-term program.</li> </ul>	<ul style="list-style-type: none"> <li>• Curriculum combination, coordination and upgrading system should be implemented in short-term training and long-term programs.</li> </ul>
4	How can multi-entry/exit procedures be facilitated for the same qualification?	<ul style="list-style-type: none"> <li>• Although the duration of the course is long, a provision of disaggregated verification based on skills learned should be implemented.</li> </ul>

	<ul style="list-style-type: none"> <li>Duration of entire course is long, no provision of separate verification based on skills learned</li> </ul>	
5	<p>How to ensure recognition of TVET qualifications?</p> <ul style="list-style-type: none"> <li>Not getting full recognition of TVET qualifications.</li> </ul>	<ul style="list-style-type: none"> <li>Forming a technical education authority and certifying all technical skills accordingly.</li> </ul>
6	<p>How can the problem of recognition of TVET pass trainees be addressed?</p> <ul style="list-style-type: none"> <li>Non-recognition of TVET qualifications.</li> </ul>	<ul style="list-style-type: none"> <li>Forming a technical education authority and certifying all technical skills accordingly.</li> </ul>
7	<p>What kind of organizational structure is needed for TVET at the federal, state and local levels?</p> <ul style="list-style-type: none"> <li>Continued policy ambiguity on TVET.</li> </ul>	<ul style="list-style-type: none"> <li>Establishing the Technical Education Authority and preparing the organizational framework accordingly.</li> <li>A stratified policy should be made.</li> </ul>
8	<p>What could be the roles and responsibilities of TVET structures at all three levels?</p> <ul style="list-style-type: none"> <li>Lack of clear division of responsibilities.</li> </ul>	<ul style="list-style-type: none"> <li>The center will work in the areas of policy, planning, quality assurance, the province will do MoE and Quality assurance, and the local level will do planning and implementation.</li> </ul>
9	<p>In relation to monitoring and coordination</p> <ul style="list-style-type: none"> <li>no specific responsibilities have been assigned in relation to monitoring and coordination between 3 levels (federal, state and local).</li> </ul>	<ul style="list-style-type: none"> <li>Clearly, certain responsibilities should be assigned in relation to monitoring and coordination between the 3 levels (federal, state and local).</li> </ul>

#### Students

SN	Problems	Solution
1	Simultaneous study of practical as well as theoretical studies does not occur	Experimental work should be done as soon as possible subject material,
2	Study time exceeding the stipulated year, Example: It takes 4.5 for 3-year Diploma Civil Engineer	Education should be completed, the system should be implemented,
3	Lack of evaluation of curriculum and schools by the concerned authorities	<ul style="list-style-type: none"> <li>Sufficient monitoring should be done</li> <li>Direct interaction program should be arranged with the students</li> </ul>
4	Absence of subject teachers	The practice of teaching more than one subject by one teacher should be stopped
5	Lack of education system including planning,	<ul style="list-style-type: none"> <li>Production according to demand and sale according to production</li> <li>After studying the number of students and the adequacy of teachers, the school should be given a teaching ratio.</li> </ul>
6	Lack of necessary counseling for students,	Counselors should emphasize on direct meeting and advice
7	For the library Lack of physical structure and lack of related course study, books for teaching,	Sufficient knowledge books should be available in the relevant field,
8	Technical education is limited to the name of practical education. There is no arrangement for things like field visit and education tour.	Experiential work should be arranged for learning achievement based on the required syllabus
9	Shortage of experienced teachers, specialized teachers The condition of not being able to coordinate practical activities with studies, of teachers	Along with qualifications, experience should also be measured

10	Lack of required study inspection by the responsible body,	Inspection should not be treated as a mandatory subject
11	Needed skills during employment, nepotism more than efficiency, nepotism problem	During employment, performance and skills should also be tested Nepotism and nepotism should end
12	Lack of adequate transport facilities,	
13	Although technical education is expensive and promising, it cannot be of quality and effectiveness in actual practice.	Looking at the overall category Technical education It should be made as affordable as possible The education system based on daily life should be ended and education system should be adopted
14	Although interesting policies and action plans have been prepared, the lack of implementation is affecting the future of students and the large productive workforce of the country, especially the technical education sector, the backbone of the country's development.	Formulated policy action plan To be strictly enforced
15	Technical education is also limited to written examination rather than practical learning.	Technical education Practical learning should be arranged along with written
16	determined by the administrative body Not teaching according to credit hours	Subjectively exempted time It should be used only for academic purposes
17	Semester exam and annual exam results are not published on time.	No delay in publication of results,

Annex: 8 Sample Group Presentation at Biratnagar Workshop

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## Horizontal expansion

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## समूह २ गुणस्तर तथा सान्दर्भिकता

मञ्जु घिमिरे (प्रिन्सिपल) ओखलढुङ्गा स्कुल अफ हेल्थ साइन्स  
कृष्णराज राई (उपसचिव) लैटाड नगरपालिका मोरङ  
गणेश दाहाल (इन्जिनियर) शैलेजा आचार्य स्मृती पोलिटेक्निक  
मोरङ  
धनकुमार चोडवाड (प्रअ) श्री नारायणी नमूना मा वि मैवाखोला ३  
ताप्लेजुङ  
बिजयहरी शर्मा (DG) नेपाल उद्योग परिषद प्रदेश १ मोरङ  
बाबुराम ढकाल (अभिभावक)/ विराट एगोटेक विराटनगर

## Accreditation

आवश्यक छ/ छैन	कारण	कसरी गर्ने
छ	मापदण्डहरू अनुसारको नियमन, व्यवस्थापन र सहजीकरणका र गुणस्तर सुनिश्चित गर्ने र समकक्षताका लागि	केन्द्र स्तरीय परिषद वा प्रदेश स्तरीय संरचनाबाट

## TVET को उत्तीर्ण दर न्यून हुनुका कारण र सुधारका उपाय

कारण	सुधारका उपायहरू
<ul style="list-style-type: none"> <li>• समग्र विद्यालय शिक्षा र आधारभूत तहको ज्ञान क्षमताको कमी हुनु</li> <li>• शिक्षालय र विद्यालयको पूर्वाधार र सिकाइ सहजीकरणमा साधारण शिक्षा जस्तै हुनु</li> <li>• प्रशिक्षार्थी छनोट योग्यता र रूचीका आधारमा हुन नसक्नु</li> </ul>	<ul style="list-style-type: none"> <li>• विद्यालय शिक्षाको गुणस्तर सुधार,</li> <li>• शिक्षालयको पूर्वाधार सुधार गर्ने</li> <li>• प्रशिक्षण प्रकृत्यामा सुधार,</li> <li>• मूल्याङ्कन काम गर्ने सक्ने आधारमा गर्नुपर्ने सैद्धान्तिक कम गर्ने</li> </ul>

## Tec. stream र CTEVT को पाठ्यक्रम फरक गर्नु उचित हो वा होइन

हो वा होइन	सुधारका उपायहरू
• होइन	<ul style="list-style-type: none"> <li>• समग्र पाठ्यक्रम NQF लाई आधार मानी पाठ्यक्रम विकास गर्ने</li> <li>• निजी क्षेत्र सहितको कार्यदलबाट दुबैको एउटै पाठ्यक्रम तयार गरी लागु गर्ने</li> <li>• Tec. stream को लाई बढाउन आवश्यक रहेको ११ र १२ मा OJT राख्न सकिन्छ की ?</li> <li>• सेमेष्टर सिस्टम गर्ने की ?</li> </ul>

## Diploma तहमा OJT को व्यवस्था उपयोगी हुने वा नहुने

हुने वा नहुने	कारण
• धेरै उपयोगी हुने	<ul style="list-style-type: none"> <li>• प्राविधिक शिक्षा गरेर सिक्ने हो पढेर होइन</li> <li>• OJT कार्यस्थल वा उद्योगमा गराउदा कामसँग परिचित भइ सक्षमता हासिल गर्न सहयोगी हुन्छ</li> <li>• काम पाउन र दक्षतापूर्वक सम्पन्न गर्न सहज हुन्छ</li> <li>• गैरिखान सक्ने बनाउन</li> </ul>

## TLM तथा पाठ्यक्रम सम्बन्धी समस्याहरू

समस्याहरू	समाधान गर्ने
<ul style="list-style-type: none"> <li>• TLM उपलब्ध सर्वसुलभ नहुनु</li> <li>• महँगो हुनु</li> <li>• प्रशिक्षकहरू प्रविधिमा नहुनु</li> <li>• सबै ठाउँमा प्रविधिको पहुँच नहुँदा प्रयोगमा कठिनाई</li> <li>• शिक्षालयमा ल्याव र पुस्तकालयको उचित प्रवन्ध नहुनु</li> <li>• भएका सामग्रीको उपयुक्त प्रयोग नहुनु</li> <li>• सामग्रीमा भाषिक कठिनाई</li> </ul>	<ul style="list-style-type: none"> <li>• NQF मा आधारित Curriculum विकास गर्ने</li> <li>• Text Book तयार गर्ने</li> <li>• पाठ्यपुस्तकमा अनुदान दिई निशुल्क उपलब्ध गराउने</li> <li>• स्तरीय मापदण्ड तयार गरी पर्याप्त सामग्री सहितको ल्याव र पुस्तकालय सबै विद्यालयमा विकास गर्ने</li> <li>• सन्दर्भ सामग्रीको छनोट र प्रयोग गर्न प्रशिक्षक तालिम</li> </ul>

## प्रशिक्षक उपलब्धता

समस्याहरू	समाधान गर्न
<ul style="list-style-type: none"> <li>सबै विषयमा योग्यता पुगेका प्रशिक्षक नपाउनु (Masters गरेको नपाउनु)</li> <li>प्रशिक्षकको जागीरको सुरक्षा नहुनु</li> <li>तालिमको अभाव</li> <li>प्रशिक्षकहरू प्रविधिमैत्री नहुनु</li> <li>Exposure नहुनु</li> </ul>	<ul style="list-style-type: none"> <li>भविष्यको प्रक्षेपण गरी स्थायी दरबन्दी विद्यार्थी सङ्ख्या अनुसार सृजना गर्ने</li> <li>प्रशिक्षकको सेवाको स्थायीत्व गर्ने</li> <li>तलव सुविधामा एकरूपता गर्ने</li> <li>शिक्षण सम्बन्धी तालिम दिने</li> <li>Exposure भ्रमण र तालिम दिने</li> <li>Career path clear (career counseling) परिभाषित गर्ने</li> </ul>

## प्रशिक्षक भर्नाका लागि प्रभावकारी संयन्त्र

- सेवा आयोगको व्यवस्था गर्ने
- सेवा आयोगले स्वीकृत गरेको पाठ्यक्रम अनुसार संयन्त्र र प्रकृयाको विकास गर्ने
- केन्द्र वा प्रदेशस्तरबाट सञ्चालन गर्ने

## भौतिक पूर्वाधार

पूर्वाधारहरूको सूधार	
<ul style="list-style-type: none"> <li>साधरण भन्दा फरक कक्षाकोठाको व्यवस्था</li> <li>प्रयोगशाला सबै विद्यार्थीलाई सहज हुने</li> <li>प्रयोगशाला सञ्चालनमा कुनै प्राविधिक कठिनाई नहुने</li> <li>नयाँ आविस्कार भएका प्राविधिकहरूको जानकारी राख्न IT को ल्याव सबै शिक्षालय र विद्यालयमा गर्ने</li> <li>पर्याप्त प्रयोग गर्नेपाउने सामग्रीहरू</li> <li>प्रयोगशालामा काम गर्ने कर्मचारीको क्षमता विकास सहितको व्यवस्था</li> </ul>	

## व्यवहारिक प्रशिक्षणमा कस्तो सुधार हुनु पर्दछ

सुधार	
<ul style="list-style-type: none"> <li>जानलाई सौपमा रूपान्तरण गरेर सिक्ने वातावरणमा</li> <li>प्रशिक्षकबाट सहजीकरण</li> <li>समूहकार्य र प्रस्तुतीकरण</li> <li>व्यक्तिगत प्रतिवेदन</li> <li>स्थलगत अध्ययन र प्रतिवेदन</li> </ul>	

## OJT का अवसरहरू कसरी व्यवस्थापन गर्न सकिन्छ

- OJT का स्थान वा संस्थाहरू शिक्षालय वा विद्यालयले वार्षिक रूपमा अध्यावधिक गर्ने
- आन्तरिक र वाह्य सुपरीवेक्षकबाट मूल्याङ्कन गर्ने व्यवस्था गर्ने
- शिक्षालयले पर्याप्त न्यूनतम तयारी र अभिमुखीकरण गर्ने
- प्रशिक्षार्थीलाई न्यूनतम खाजा/ खान खर्च उपलब्ध गराउने

## प्रशिक्षकको प्रकार वा प्रकृति

अवस्था	समाधान गर्न
<ul style="list-style-type: none"> <li>Tec. stream मा स्थायी प्रशिक्षक सुन्य</li> <li>CTEVT मा स्थायी दरबन्दी छ</li> <li>Tec. stream को अधिकांश विषयमा न्यूनतम योग्यता एक वर्ष अनुभव भएकालाई मानिएको छ</li> <li>सबै स्थानमा टिकाउन समस्या छ</li> </ul>	<ul style="list-style-type: none"> <li>विद्यार्थी सङ्ख्या र विषयको आधारमा दरबन्दी सिर्जना गर्ने</li> <li>विद्यालयको सञ्चालन आवश्यकताको आधारमा मात्र दिने</li> <li>विद्यालय सञ्चालन गर्दा सबै पूर्वाधार सहित अनुदान दिने</li> <li>सेवा आयोग मार्फत स्थायी गर्ने</li> </ul>

## प्रशिक्षकको योग्यता बढाउन के गर्ने

अवस्था	समाधान गर्न
<ul style="list-style-type: none"> <li>CTEVT का लागि दिईएको पर्याप्त छैन</li> <li>Tec. stream का लाई दिईएको छैन</li> </ul>	<ul style="list-style-type: none"> <li>TAI को प्राविधिक सहयोगमा सबै प्रदेशमा तालिम सञ्चालन गर्ने</li> <li>माथिल्लो योग्यता बढाउन सुविधा दिने</li> <li>प्रयोगात्मक अभ्यासका लागि कार्यस्थल वा</li> </ul>

## License को व्यवस्था

आवश्यक छ वा छैन	कारण
<ul style="list-style-type: none"> <li>आवश्यक छ</li> </ul>	<ul style="list-style-type: none"> <li>Teaching art पनि हो profession पनि हो</li> <li>यसले योग्यतम र क्षमतावान प्रशिक्षक विकास गर्न सकिन्छ</li> </ul>

## कार्यस्थलमा आधारित प्रशिक्षण मोडेल के के हुने

- लागत साझेदारी
- पूर्ण सरकारी लगानी

## मूल्याङ्कन र प्रमाणीकरण

सुधार गर्नुपर्ने	तौर तरिका
<ul style="list-style-type: none"> <li>Formative evaluation</li> <li>विद्यार्थीबाट प्रशिक्षकको मूल्याङ्कन गर्नु आवश्यक छ</li> <li>सौप परीक्षण</li> <li>परीक्षा प्रणाली र प्रश्नमा</li> <li>आन्तरिक मूल्याङ्कन</li> </ul>	<ul style="list-style-type: none"> <li>समस्या समाधान गराइ मूल्याङ्कन गर्ने</li> <li>Tools को विकास गर्ने</li> <li>प्रयोगात्मक र कार्यस्थलको अभ्यासमा गर्ने</li> <li>काम गर्न सकेको आधारमा स्तर निर्धारण गर्ने</li> <li>वाह्य अनुगमन गरी परीक्षाको वातावरण सुधार गर्ने</li> </ul>

## गुणस्तर वृद्धिका लागि

समस्या	समाधान
<ul style="list-style-type: none"> <li>पूर्वाधार कमी</li> <li>योग्यता पुगेका प्रशिक्षकको कमी</li> <li>शिक्षण वा प्रशिक्षण</li> <li>परीक्षा प्रणाली</li> <li>प्रशिक्षार्थीको पूर्व योग्यता</li> </ul>	<ul style="list-style-type: none"> <li>पर्याप्त अभ्यास गरेर सिक्न मिल्ने भौतिक पूर्वाधार विकास गर्ने</li> <li>योग्यता प्राप्त प्रशिक्षक उत्पादन र सेवा सुविधामा वृद्धि र मर्यादित बनाउने</li> <li>प्राविधिक ज्ञान सीपमा केन्द्रित गर्ने र यसको लागि प्रशिक्षक प्रशिक्षण तालिम सञ्चालन गर्ने</li> <li>कामको अभ्यास गरेर जाँच्ने मापदण्ड तयार गर्ने, प्रयोगात्मक परीक्षाको % बढाउने</li> <li>सैद्धान्तिक परीक्षाको % घटाउने</li> <li>समय शिक्षाको गुणस्तर सुधार गर्ने</li> </ul>

## दक्षता सुधार

- कार्यक्रम सञ्चालन गर्ने सस्थाको क्षमता अनुसार भर्ना कोटा निर्धारण
- प्रशिक्षण प्रकृत्यामा सुधार गर्ने
- सन्दर्भ सामग्री र पाठ्यपुस्तकहरू निशुल्क उपलब्ध गराउने
- निरन्तर मूल्याङ्कन र अभिलेखीकरण गर्ने
- संस्थागत रूपमा सिपलाई निरन्तर प्रयोग गर्ने वातावरण मिलाउने (school, industry, office,.....)
- मौका परीक्षा समयमा सञ्चालन गर्ने
- रोजगारीको लागि TVET प्रमाणपत्र प्राप्तलाई प्राथमिकता दिने र अनुगमन गर्ने
- उद्यमी बनाउन बिउ पुँजीको प्रवन्ध गर्ने

प्रशिक्षार्थीको क्षमता उद्योग बजारसँग मिल्ने छ तर कार्य विशिष्टीकरणको कारण कार्यदक्षता अभाव छ

समस्या	समाधान
पाठ्यक्रम परिवर्तन गर्ने १० वर्ष लाग्ने प्रविधि दिनदिनै परिवर्तन हुने, सक्षम प्राप्त व्यक्ति विदेश पलायन हुने	कारण TVET को पाठ्यक्रम परिवर्तन गर्ने, दक्ष जनशक्तिको लागि रोजगारीको सुनिश्चितताको लागि सुरक्षा प्रवन्ध गर्ने उद्योग संग समन्वय

## आम्दानी बढाउने

- काम सम्बन्धी क्षमता अभिवृद्धि
- स्वरोजगार बनाउन गुणस्तरीय प्राविधिक ज्ञानको विकास
- बजार र लगानीको सुनिश्चितता
- औद्योगिक व्यवसायमा प्रयोग हुने औजार उपकरणहरूको आविष्कार अनुसार सीप र कार्यदक्षता बढाउने
- पढ्दै कमाउँदै कार्यक्रमलाई प्रयोगात्मक अभ्यास सँग जोड्ने

## Outputs

- आवश्यकता भएका व्यक्तिलाई मात्र छोटो अवधीको तालिम दिन छनोटमा व्यापक प्रचार प्रसार तथा सहजीकरण गर्ने
- रोजगार बजारसँग जोडी आयवृद्धि गर्ने
- लामो समयका कार्यक्रमका लागि छात्रवृत्ति सङ्ख्या वृद्धि गर्ने
- सिकाइ र मूल्याङ्कन प्रकृत्यामा समयसापेक्ष सुधार
- Advance diploma को कोर्ष लागु गर्ने

## सान्दर्भिकता

- तालिम लिने र काम गर्नेबेला अन्यत्र जानेकारण औद्योगिक प्रशिक्षार्थी राख्न कठिन
- राष्ट्रिय र प्रदेश स्तरको सम्भाव्य उद्योगहरूको पहिचान र प्राथमिकीकरण गर्ने
- उद्योगको आवश्यकता अनुसार पाठ्यक्रम विकास गर्ने
- प्रशिक्षकको पुनर्ताजगी तालिम कार्यस्थल वा उद्योगमा गर्ने
- उद्योगको संभाव्यता र आवश्यकता अनुसार रोजगारका लागि विशिष्ट खालका TVET कार्यक्रम सञ्चालन गर्ने (longterm and short term)
- QJT coordination committee मा उद्योगी व्यवसायीको CNI, FNCCI जस्ता संस्थाहरूको प्रतिनिधित्व गराउने
- व्यवसायीसँग समन्वय गर्ने

## आम्दानी बढाउने

- उद्योग अनुसार पाठ्यक्रम विकास गर्ने समन्वय
- उद्योगको सक्षमता विकास गरी रोजगारी विस्तार गर्न उद्योगमैत्री नीतिगत व्यवस्था गर्ने
- उद्योगमा लगानी स्थीर प्रकारको बनाउनुपर्ने
- गुणस्तरीय प्रशिक्षार्थीको उत्पादन गरी उद्योगको उत्पादन र उत्पादकत्व बढाउने

## रोजगारदर न्यून हुनुका कारण

- उद्योग व्यवसायको विस्तार कम
- तालिम प्राप्त भन्दा अनुभवी जनशक्तिको बढी कार्यदक्षता हुनु
- Supply and demand को तालमेल नहुनु(बजार माग र अवस्था अनुसार गुणस्तरीय जनशक्ति उत्पादन नहुनु)
- तालिम प्राप्त व्यक्तिको आम्दानी कमी हुनु
- उच्च शिक्षा अध्ययनमा लाग्नु
- तुलनात्मक रूपमा न्यून तलवहरू
- रोजगारको कम अवसर
- उच्च शिक्षा प्रतिको रुची बढ्दै जानु

## रोजगारीदर बढाउन

- उद्योग व्यवसायको विस्तार
- अनुभवी प्रशिक्षक जनशक्तिको व्यवस्था गर्ने
- बजार माग र अवस्था अनुसार गुणस्तरीय जनशक्ति उत्पादन गर्न पाठ्यक्रम र प्रशिक्षणको व्यवस्था गर्ने
- योग्यता अनुसार न्यूनतम तलवको व्यवस्था गर्ने
- रोजगार मेलाहरू आयोजना गर्ने
- NQF अनुसार सक्षमता विकास गर्न

जिज्ञासाको लागि.....

धन्यवाद



समूह : ४

## Governance ( सुशासन )

सांगठनिक संरचना :

- संघीय परिषद
- प्रदेश परिषद
- स्थानीय समन्वय समिति

## संघीय परिषद

वर्तमान ऐन नियममा रहेको व्यवस्थामा प्रदेश परिषदको कार्यकारी प्रमुख पदेन समन्वय समिति थप व्यवस्था

## प्रदेश परिषद

अध्यक्ष : सामाजिक विकास मन्त्री

स.सचीव : TVET प्रदेश कार्यालय प्रमुख

अन्य प्रतिनिधित्व :

- सम्बन्धित विषयगत मन्त्रालयका सचिव/महाशाखा प्रमुख
- सामाजिक विकास समिति सभापति
- सामाजिक विकास मन्त्रालय सचिव वा शिक्षा महाशाखा प्रमुख
- उद्योग वाणिज्य महासंघ
- क्षेत्रगत विषय विज्ञहरु
- प्राविधिक शिक्षालयहरु
- स्थानीय तहका प्रमुखहरु मध्ये १ महिला सहित २ जना

## स्थानीय TVET समन्वय समिति

अध्यक्ष : स्थानीय पालिका प्रमुख

स.सचीव : शिक्षा शाखा प्रमुख

सदस्य : पालिका उप प्रमुख

सदस्य : सामाजिक विकास समिति संयोजक

सदस्य : प्राविधिक धारका विद्यालय मध्येबाट १ जना

सदस्य : उद्योग वाणिज्य महासंघ प्रतिनिधि

सदस्य : तालिम

सदस्य

स

## संघीय परिषदको कार्यक्षेत्र

- ❖ शिक्षालयको मापदण्ड निर्धारण
- ❖ राष्ट्रिय पाठ्यक्रम प्रारूप र पाठ्यक्रम ढाँचा तयारी
- ❖ गुणस्तर परीक्षण प्रतिवेदन तयार गरी भावी रणनीति निर्धारण
- ❖ परीक्षा सञ्चालन तथा प्रमाणीकरण
- ❖ बजेट व्यवस्थापन
- ❖ सीप परीक्षण
- ❖ शिक्षक नियुक्ति सम्बन्धि व्यवस्था

## प्रदेश परिषदको कार्यक्षेत्र

- ❖ प्राविधिक शिक्षालयको अनुमति, सञ्चालन र व्यवस्थापन
- ❖ सबै प्रकारका शिक्षालयहरुको समन्वय
- ❖ बजेट तथा कार्यक्रम व्यवस्थापन
- ❖ अनुगमन, निरीक्षण
- ❖ क्षमता विकास
- ❖ परीक्षा सम्बन्धि समन्वय तथा व्यवस्थापन

## स्थानीय समन्वय समितिको कार्यक्षेत्र

- ❖ शिक्षालय तथा प्रशिक्षकको बजेट व्यवस्थापन तथा निकाशा
- ❖ अनुगमन, निरीक्षण र सुपरीवेक्षण
- ❖ छोटो अवधिका तालिम सञ्चालन
- ❖ सीप परीक्षणमा समन्वय र सहयोग
- ❖ प्राविधिक शिक्षालय अनुमतिका लागि सिफारिस
- ❖ रिक्त शिक्षक पदमा तत्काल करारमा शिक्षक व्यवस्थापन

## Group : 4

### सहभागीहरु :

- राजेन्द्र वुढाथोकी
- नवराज कोईराला
- गोपाल प्रसाद दाहाल
- योगेश्वर भट्टराई
- टेकनारायण शाह
- मेदिनी घिमिरे

थप सुभावाका लागि  
अनुरोध सहित  
धन्यवाद

# Governance (सुशासन)

## सांगठनिक संरचना

संघ :- वर्तमान ऐन नियमना रहेको व्यवस्थामा प्रदेश परिषदको कार्यकारी प्रमुख पदेन सदस्य रहने थाप व्यवस्था गर्ने

प्रदेश :- TVET प्रदेश परिषद देहाय अनुसार रहनसक्ने

अध्यक्ष - शिक्षा हेर्ने मन्त्री (सा.वि.मन्त्रालय)

स.सचिव - TVET प्रदेश कार्यालय प्रमुख

अन्य प्रतिनिधित्व गराउनुपर्ने क्षेत्र :

- सचिव / महाशाखा प्रमुख
- \* सा.वि.म. सचिव, शिक्षा महाशाखा प्रमुख
  - \* सम्बन्धित विषयगत मन्त्रालय
  - \* उद्योग वाणिज्य महासंघ
  - \* क्षेत्रगत विषय विज्ञहरू
  - \* प्राविधिक शिक्षालयहरू
  - \* स्थानीय तहका प्रमुखहरू मध्ये २ जना
  - \* सामाजिक विकास समिति संयोजक
- # उद्योग  
# रोजगार  
# श्रम  
# पर्यटन  
# स्वास्थ्य

स्थानीय :- TVET समन्वय समिति

अध्यक्ष :- पालिका प्रमुख

स.सचिव :- शिक्षा प्रमुख

सदस्य :- उप प्रमुख

" :- सामाजिक विकास समिति संयोजक

संलग्नता :- प्राविधिक शिक्षालय प्रमुख  
उद्योग वाणिज्य संघ प्रतिनिधि  
तालिम प्रदायक संस्था प्रतिनिधि  
प्रमुख प्रशासकीय अधिकृत  
विषय विज्ञहरू

## संघीय संरचनाका कार्यक्षेत्र

संघीय परिषद :- \* शिक्षालयको मापदण्ड निर्धारण  
\* राष्ट्रिय पाठ्यक्रम प्रारूप र पाठ्यक्रम ढाँचा तयार  
\* गुणस्तर परीक्षण प्रतिवेदन तयार गरी भावी रणनीति निर्धारण

प्रदेश परिषद :- \* परीक्षा सञ्चालन र प्रमाणपत्र निकाल्न / प्रमाणीकरण  
\* प्राविधिक शिक्षालय अनुमति, सञ्चालन र व्यवस्थापन  
\* सबै प्रकारका शिक्षालयको समन्वय  
\* बजेट व्यवस्थापन  
\* अनुगमन, निरीक्षण \* क्षमता विकास

स्थानीय इकाई :-

- \* अनुदान व्यवस्थापन
- \* अनुगमन, निरीक्षण, सुपरीवेक्षण
- \* क्षेत्रीय अवधिका तालिम सञ्चालन
- \* सीप परीक्षणमा समन्वय र सहयोग
- \* प्राविधिक शिक्षालय अनुमतिको लागि सिफारिस

समूह - ४

- राजेन्द्र बुढाथोकी
- नवराज कोइराला
- गोपाल प्र. दाहाल
- योगेश्वर भट्टराई
- टेकनारायण शाह
- मेदिनी घिमिरे



ब्यवस्थापन तथा क्षमता विकास  
समुह ५  
को तर्फवाट सवैमा हार्दिक अभिवादन



ब्यवस्थापन राम्रो बनाउन कस्ता  
तालिम प्रदान गर्ने ?

- वि ब्य स र शिक्षक अभिभावकहरुलाई छोटो अवधिको क्षमता विकास तालिम
- प्र अ लाई १ महिने प्र अ ब्यवस्थापन तालिम
- समय समयमा पुनर्ताजगी तालिमहरु

OJT

- OJT मा सहभागी हुनेलाई खाजा सहितको आर्थिक सुविधाको ब्यवस्था
- OJT लाई उत्पादनमूलक कार्यसँग जोड्ने
- सम्बन्धित निकायहरुवाट प्रभावकारी निरीक्षण अनुगमन
- OJT गर्ने संस्था, उद्योग, फर्महरुलाई अभिमुखीकरण ब्यवस्था र प्रभावकारी समन्वय
- मूल्याङ्कनको लागि अन्तराष्ट्रिय स्तरको मापदण्ड हुनु पर्ने

विद्यालय ब्यवस्थापन को क्षमता  
विकास

- वि ब्य स लाई विद्यमान शिक्षा सम्बन्धी ऐन कानूनको अभिमुखीकरण
- वि ब्य स लाई आफ्नो काम कर्तब्य र अधिकारको बोध गराउने
- अभिभावकलाई अभिभावक शिक्षा प्रदान गर्ने
- शिक्षक अभिभावक संघलाई क्रियासिल बनाउने
- प्र अ लाई जिम्मेवार बनाउने

प्रशिक्षक गुणस्तर

- योग्य प्रशिक्षकको छनौट
- स्पष्ट सेवा सर्त र सुविधा एवं स्थायित्व
- दुर्गम क्षेत्रमा थप सुविधाको ब्यवस्था
- तालिम एवं क्षमता विकास सम्बन्धी कार्यक्रम संचालन गर्ने

रोजगार

- बजार वा आवश्यकताका आधारमा मात्र प्राविधिक शिक्षाको अनुमती/ स्वीकृती दिने
- प्राविधिक जनशक्तिलाई रोजगारीको सुनिश्चितता
- कामको सम्मान हुने वातावरण तयार गर्नु पर्ने

## विद्यालयलाई वजेटको सुनिश्चितता

- माध्यमिक तह सम्मको शिक्षा निःशुल्क हुने राज्यको नीति भएकोले संघ, प्रदेश र स्थानिय तहले कक्षा १२ सम्मको प्राविधिक शिक्षाका लागि आवश्यक बजेटको ब्यवस्थापन गर्ने
- संघ ५०, प्रदेश २० र स्थानिय तह ३० प्रतिशतले हुने गरी बजेट ब्यवस्थापन गर्ने
- शिक्षा तथा मानव स्रोत विकास केन्द्र वा सिटिडिभिटी मध्ये एकवाट एकद्वार प्रणालीवाट प्राविधिक शिक्षा संचालन ब्यवस्थापन गर्ने ।

## समुह ५ मा रहेका सहभागीहरु

- राजकुमार वि क
- सिताराम राई
- गगन श्रेष्ठ
- सुरेश मल्ल
- सेमन्त गौतम

Annex 9: Guiding questions for Group Work

;:'f'wf/sf lf]qx?	::ffGble{s k Zgx?
;d"x !	<b>kx"r / la:tf/</b>
<b>kx"r</b>	<ul style="list-style-type: none"> <li>• 2078 sf] tYof+ssf] cfwf/df x]g]{ xf] eg TEVT df egf{b/ Hofb} g} Go"g 5 . egf{b/ a9fpg s] s:tf ultljwn] ;3fp k'\ofpg ;Sb5 &lt;</li> <li>• TVET df cWoog u/]sf k zlffyL{x? (Technical Stream of CEHRD, Diploma and Pre-diploma of CTEVT) nfO{ pRr lzlf k fKt ug{ kx'Frdf slQsf] ;lhnf] ePsf] dxz'z ug'{ ePsf] 5 &lt;</li> <li>• n}lËs ;dfgtf / ;fdflhs ;dfj]zLs/Of (GESI) sf nflu s] s:tf k fjwfgx? nfu' ul/g' pko'Qm x'G5 &lt;</li> <li>• g]kfnf TVET sf] p2]Zox; s] x'g' pko'Qm xf]nfM /f]huf/L, jf z}llfs of]Uotf jf b'a} &lt;</li> </ul>
<b>la:tf/</b>	<ul style="list-style-type: none"> <li>• TVET ;~rfng u/]sf ;+yfx?sf] ;+Vofsf] cfwf/df TVET nfO{ yk lj:tf/ ug'{ cfjZos 5 &lt;</li> <li>• Diploma txeGbf dflyNnf] txd] TVET cWoogsf lf]qx? ;~rfng ul/g' cfjZos 5 &lt; olb cfjZos 5 eg] gofF lf]qx? s] s] x'g' ;Sb5g\ &lt;</li> <li>• xfnsf txeGbf dfly (Vertical expansion) tyf llfltlhs/Of (Horizontal expansion) df s]lGb t cWoogsf ljifo:t'x? s;/L lj:tf/ ug' ;lsG5 &lt;</li> </ul>
;d"x @	<b>u'0f:t/</b>
	<ul style="list-style-type: none"> <li>• tkfO{+sf] larf/df ;+yf tyf sfo{qmdsf] accreditation ul/g' cfjZos 5 &lt; olb 5 eg] s] sf/Ofn] o;sf] cfjZostf dxz'z ug'{ ePsf] 5 &lt;</li> </ul>
	<ul style="list-style-type: none"> <li>• TVET df k zlffyL{x?sf] pQL0f{ b/ Go"g 5 . o;f] x'g'sf d'Vo sf/Ofx? s] x'g' ;Sb5 &lt; pQL0f{ b/ a[4 ug{ s] s:tf pkfox? nfu' ug' ;lsG5 &lt;</li> </ul>
<b>kf7\oqmd</b>	<ul style="list-style-type: none"> <li>• CEHRD sf] Technical Stream tyf CTEVT sf] Diploma tx cGtu{tsf] b'O{ km/s kf7\oqmdx? nfu' ul/g' plrt xf] jf xf]Og &lt; cfkm\gf] ;d"xsf] larf/ k ;t't ug'{xf];\ .</li> <li>• Diploma txsf] kf7\oqmdf OJT sf] af/]df Joj:yf ul/g' slQsf] pkof]uL x'g' ;Sb5 &lt; cfkm\gf] ;d"xsf] ljrf/ k t't ug'{xf];\ .</li> <li>• TLM tyf kf7\ok':ts ;DalGw ;d:ofx? s] s] x'g' &lt; tL ;d:ofx? s;/L ;Daf]wg ug' ;lsG5 &lt;</li> </ul>

<p><b>k lzlzssf]</b> <b>JoJ:yfkg</b></p>	<ul style="list-style-type: none"> <li>• k lzlzssf] JoJ:yfkg s;/L ;'wf/ ug{ ;lsG5 &lt;</li> <li>• clxn]sf] cj:yfdf :yfoL k lzlzfs, ;jif s/f/, c:yfoL k lzlzfs / c+zsfing k lzlzssf] efu (share) s:tf] 5 &lt;</li> <li>• k lzlzfs JoJ:yfkg sf cGo d'Vo r'gf)tLx? s] x'g\ &lt; - k lzlzssf] b/aGbL, of]Uotf, tfnLd ==== _</li> <li>• k lzlzfs egf{sf] nflu k efjsf/L ;+oGq s] x'g ;Sb5 &lt;</li> <li>• k lzlzssf] of]Uotf a9fpg s] s:tf] JoJ:yf ckgfpg ;lsG5 &lt;</li> <li>• k lzlzssf] tfIndsf] JoJ:yfkg s;/L ug{ ;lsG5 &lt;</li> <li>• clxn] x'Fb} cfPsf] k lzlzssf] Jofj;flos ljsf; tfnLd kof{Kt 5 jf cGo k fljlws k lzlz0f jf Jofj;flos ;Lk :t/j[14 vfnsh] tfIndx? x'g' h?/L 5 &lt;</li> <li>• k lzlzssf] nflu nfO;]G;sf] k 0ffnL cfjZos 5 &lt; olb 5 eg] lsg &lt;</li> </ul>
<p><b>ef}lts k"jf{wf/</b></p>	<ul style="list-style-type: none"> <li>• lzlfnosf] ef}lts k"jf{wf/ / k of]uzfnsh] nflu s] s:tf] ;'wf/ x'g' cfjZos 5 &lt;</li> </ul>
	<ul style="list-style-type: none"> <li>• k lzlffyL{x?df /fd]f] lfdt ljsf; ug{ JoJxfl/s k lzlz0fdf (practical training part) s:tf] ;'wf/ x'g' kb{5 &lt;</li> </ul>
<p><b>sfo{:yndf</b> <b>cfwfl/t k lzlz0f</b> <b>df]8]n</b></p>	<ul style="list-style-type: none"> <li>• sfo{:yndf cfwfl/t k lzlz0f df]8]nx? s] s] x'g ;Sb5g\ &lt;</li> <li>• k lzlffyL{x?nfO{ jf:tljs 7fpFdf sfd u/] l;Sg] (OJT) cj;/x? s;/L JoJ:yf x'g' kb{5 &lt;</li> </ul>
<p><b>d"Nofíg /</b> <b>k df0fLs/0f</b></p>	<ul style="list-style-type: none"> <li>• clxn] x'Fb} cfPsf] /rgfTds d"Nofíg (formative assessment) df ;'wf/ ug'{ cfjZos 5 &lt; olb 5 eg] s;/L ;'wf/ ug' ;lsG5 &lt;</li> <li>• ljBfyL{x?Yf/f k lzlzfsx?sf] d"Nofíg ug]{ cEof; cfjZos 5 jf 5}g &lt; olb 5 eg] s;/L ul/g' pko'Qm x'G5 &lt;</li> <li>• ljBfyL{x?sf] ;Lk kl/lf0f s;/L ;'wf/ ug{ ;lsG5 &lt;</li> <li>• ljBfyL{x?s clGtd k/Llff k 0ffnLdf s;/L ;'wf/ ug{ ;lsG5 &lt;</li> </ul>
<p><b>;d"x #</b></p>	<p>Outputs, <b>blftf, ;fGble{stf / kl/0ffdx?</b></p>
<p>Outputs</p>	<ul style="list-style-type: none"> <li>• lb3{sfing / 5f]6f] cjlwsf sfo{qmdx?sf] graduate ;+Vof a[14 ug{ s] s:tf ultljlwx? x'g' h?/L 5 &lt;</li> </ul>
<p><b>blftf</b></p>	<ul style="list-style-type: none"> <li>• ljBfyL{x?n] lardf 5f]8]g] k a[QL pRr 5, lglZrt ;dofjlwdf l;sfO{ k"/f ug]{ b/ (cycle completion rate) / df]sf kl/lffdf pQL0f{ ug]{ b/ (Survival rate) Go"g 5 . o;sf sf/0fx? s] x'g\ &lt; oL ;"rfldf ;'wf/ Nofpg s] s:tf ;'wf/ sfo{x? x'g' kb{5 &lt;</li> </ul>



<b>;fGble{stf</b>	<ul style="list-style-type: none"> <li>• k fljlws ljBfyL{x?sf]m u'Of:t/ / ;fGble{stfsf] nflu lzlffno / pBf]u Aoj;foLx?nfO{ s] s:tf ultljwx?n] hf]8\g ;lsG5 &lt;</li> <li>• lzlffnox?n] pTkfbg u/]sf hgziQm &gt;d ahf/ / pBf]u Joj;fosf] cfjZostf cg';f/ 5g\ jf 5}gg\ &lt; olb 5}g eg] s] sf/Ofn] sld ePsf] xf]nf &lt; ;'wf/sf nflu s] s:tf sbdx? pko'Qm x'G5 &lt;</li> <li>• TVET cWoog u/]sf AolQmx?sf] /f]huf/L / :ffGble{stf s;/L a9fpg ;lsG5 &lt;</li> <li>• /f]huf/b/ a9fpg s] pkfox? ckgfpg ;lsG5 &lt;</li> <li>• TVET graduate x?sf] cfDbfgL a9fpg s] ug{' kb{5 &lt;</li> <li>• TVET graduate nfO{ pBd\ ljsf; tyf :j/f]huf/ pGd'v s;/L jgfpfg ;lsG5 &lt;</li> <li>• TVET lZlffnfO{ s:f/L ;fFrf] cy{df ...u/L vfg] lzlff' jgfpfg ;lsG5 &lt;</li> </ul>
<b>kl/Ofdx?</b>	<p>lzlffnox?af6 pQL0f{ k lzlffyL{x?sf] /f]huf/Lb/ Go"5 . o;sf sf/Ofx? s] x'g ;Sb5g\ &lt; /f]huf/Lb/ a9fpg s] s:tf ultljwx? pko'Qm x'G5 &lt;</p>
<b>;d"x \$</b>	<b>Plss/Of / klxrfg</b>
<b>Plss/Of</b>	<ul style="list-style-type: none"> <li>• /fli6 \o of]Uotf k OfnLdf cfwfl/t dfkb08 / kf7\oqmdsf] ljsf:f tyf ;+zf]wg s:f/L ;'lglZrt ug{ ;lsG5 &lt;</li> <li>• Technical Stream wf/ / CTEVT kf7\oqmdnfO{ s:f/L PsLs[t ug{ ;lsG5 &lt;</li> <li>• 5f]6f] kf7\oqmdx;nfO{ bL3{sfnlG sfo{qmdsf] kf7\oqmddf s;/L PsLs[t ug{ ;lsG5 &lt;</li> <li>• Pp6} of]Uotfsf nflu ax' -klj]z tyf jlXu{dg (multi entry/ exit) k fjwfgx; s;/L ;xh agfpg ;lsG5 &lt;</li> <li>• TVET of]Uotfsf] dfGotf s;/L :f'lglZrt ug{ ;lsG5 &lt;</li> </ul>
<b>klxrfg</b>	<p>TVET pQL0f{ k lzlffyL{x?sf] klxrfg (recognition) sf] ;d:ofnfO{ s;/L ;Daf]wg ug{ ;lsG5 &lt;</p>
<b>;d"x %</b>	<b>JoJ:yfkg</b>
<b>sf]if tyf ljQkf]if0f (Funds and Financing)</b>	<ul style="list-style-type: none"> <li>• ljBfnosf nflu cfjZos ah]6 s;/L ;'lglZrt ug{ ;lsG5 &lt;</li> <li>• k fljlws wf/nfO s:f/L jf:tljs lgMz'Ns agfpg ;lsG5 &lt;</li> <li>• lzlffno ;+rfngsf] nflu ;+3 k b]z / :yflgo ;/sf/n] slt slt k ltzt ah]6 Aoxf]g{' knf{ &lt;</li> <li>• CEHRD sfo{qmd cGtu{tsf laBfnodf lzlfssf] b/aGbL g]kfn ;/sf/n] Aoxf]/]sf] t/ TECS cGtu{t sfo{qmddf o:tf] Joj:yf gePsf]n] o;sf] Joj:yfkg s;/L ug{ ;lsG5 &lt;</li> </ul>

	<ul style="list-style-type: none"> <li>• l]Bfonsf] cfly{s Joj:yfkg k 0ffnL s;/L k efjsf/L agfpg ;lsG5 -;fj{ghls, gLhL, PPP model?}</li> <li>• TVET sf] nflu Ps&gt;f/ k 0fnLdf ah]6sf] Joj:yfkg] nflu s:tf] Joj:yf ul/g' kb{5 &lt;</li> </ul>
<b>;zf;g</b>	<ul style="list-style-type: none"> <li>• ;+3, k b]z / :yfgLo txd] TVET sf] nflu s:tf] k sf/sf] ;f+u7lgs ;+/rgf cfjZos kb{5 &lt;</li> <li>• tLg} txd] TVET ;+/rgfx?sf] e"l]dsf / lhDd]jf/Lx? s] s] x'g ;Sb5 &lt;</li> <li>• oL tLg txx? jLrs ;dGjosf] nflu s:tf] ;+/rgf x'g' kb{5 &lt;</li> <li>• tLg txsf] aLrdf k flj]lws Aofs:6lkÎ -cg'udg_ ;'lglZrt ug{ s] Joj:yf x'g' kb{5 &lt;</li> <li>• ;+3 / k b]z txd] cGt/ dGqfno ;dGjo s;/L ;'lglZrt ug{ ;lsG5 &lt;</li> <li>• TVET ;~rfng ePsf] l]Bfnox?sf] cg'udg ;+l3o tyf k b]z ;/sf/sf] tk{maf6 ug{ ;lsG5 &lt; ;+l3o / k b]z txaf6 k flj]lws Aofs:6lkÎ ug{ s:tf] ;+oGq pko'Qm x'G5 &lt;</li> </ul>
<b>Joj:yfkg / lfdtf ljsf;</b>	<ul style="list-style-type: none"> <li>• l]Bfno Joj:yfkg lfdtf s:f;/L clej]l4 ug{ ;lsG5 &lt;</li> <li>• s:tf Joj:yfkg tyf tfnLdn] l]Bfno Joj:yfkg lfdtf clea]l4 ug{ ;S5 &lt;</li> <li>• lgDg l]jifox?df l]Bfnosf] lfdtf s;/L ;'wf/ ug{ ;lsG5 &lt; <ul style="list-style-type: none"> <li>○ k lzl]f0f u'0f:t/</li> <li>○ OJT</li> <li>○ /f]huf/</li> </ul> </li> </ul>
<b>;dGjo</b>	TVET sf] k efjsf/L sfo{Gjogsf] nflu k b]z / :yfgLo tx aLrsf] ;dGjo s;/L clej]l4 ug{ ;lsG5 <
<b>cg'udg tyf d"Noflg</b>	<ul style="list-style-type: none"> <li>• k b]z txd] TVET sf] cg'udg tyf d"Noflgsf] nflu s:tf] ;+oGq÷Joj:yf ul/Psf] 5 &lt;</li> <li>• ;+3Lo tx jf k b]z txaf6 cg'udg cfjZos 5 &lt; olb 5 eg] s] p4]Zosf] nflu o;sf] cfjZostf dxz'a ug{' x'G5 &lt;</li> </ul>

**Annex 10a: Workforce Projection Table (Scenario 1: Planned Growth)**

Year	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88
Sectoral Growth	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Human health and social work activities	6.53	10.5	10.5	10.5	10.3	10.3	10.3	10.3	10.3	10.3	10.3
Agriculture, forestry and fishing	2.64	5.4	5.4	5.4	4.9	4.9	4.9	4.9	4.9	5.0	5.0
Engineering Replated	6.37	12.2	12.2	12.2	14.9	14.9	14.9	14.9	14.9	15.0	15.0
Accommodation and food service activities	11.20	17	17	17	6.2	6.2	6.2	6.2	6.2	8.0	8.0
<b>Projection</b>											
Health	120016	132617	146542	161929	178608	197004	217296	239677	264364	291593	321627
Agriculture and Forestry	1599319	1685683	1776709	1872652	1964412	2060668	2161641	2267561	2378672	2497605	2622485
Engineering	1157363	1298561	1456985	1634737	1878313	2158182	2479751	2849234	3273770	3764835	4329561
Hospitality	54637	63926	74793	87508	92933	98695	104814	111313	118214	127671	137885

**Cummulative Projection (2022-2031)**

Year	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88
Sector/Course	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

<b>Health</b>	<b>120016</b>	<b>132617</b>	<b>146542</b>	<b>161929</b>	<b>178608</b>	<b>197004</b>	<b>217296</b>	<b>239677</b>	<b>264364</b>	<b>291593</b>	<b>321627</b>
Short Term	26476	29255	32327	35722	39401	43459	47936	52873	58319	64326	70951
Pre Diploma	33437	36948	40827	45114	49761	54886	60540	66775	73653	81239	89607
Diploma	60103	66414	73388	81093	89446	98659	108821	120029	132392	146028	161069
<b>Agriculture and Forestry</b>	<b>1599319</b>	<b>1685683</b>	<b>1776709</b>	<b>1872652</b>	<b>1964412</b>	<b>2060668</b>	<b>2161641</b>	<b>2267561</b>	<b>2378672</b>	<b>2497605</b>	<b>2622485</b>
Short Term	1322298	1393702	1468962	1548285	1624151	1703735	1787218	1874792	1966656	2064989	2168239
Pre Diploma	216039	227705	240001	252961	265356	278358	291998	306306	321315	337381	354250
Diploma	60983	64276	67747	71405	74904	78575	82425	86464	90700	95235	99997
<b>Engineering</b>	<b>1157363</b>	<b>1298561</b>	<b>1456985</b>	<b>1634737</b>	<b>1878313</b>	<b>2158182</b>	<b>2479751</b>	<b>2849234</b>	<b>3273770</b>	<b>3764835</b>	<b>4329561</b>
Short Term	794761	891722	1000512	1122574	1289838	1482024	1702845	1956569	2248098	2585313	2973110
Pre Diploma	292121	327760	367747	412612	474091	544731	625896	719154	826308	950255	1092793
Diploma	70480	79079	88726	99551	114384	131427	151010	173510	199363	229268	263658

<b>Hospitality</b>	<b>54637</b>	<b>63926</b>	<b>74793</b>	<b>87508</b>	<b>92933</b>	<b>98695</b>	<b>104814</b>	<b>111313</b>	<b>118214</b>	<b>127671</b>	<b>137885</b>
Short Term	29858	34934	40873	47821	50786	53935	57279	60830	64602	69770	75351
Pre Diploma	21513	25171	29450	34456	36592	38861	41271	43829	46547	50270	54292
Diploma	3266	3821	4471	5230	5555	5899	6265	6653	7066	7631	8242
<b>Total</b>	<b>2931335</b>	<b>3180786</b>	<b>3455030</b>	<b>3756826</b>	<b>4114266</b>	<b>4514549</b>	<b>4963502</b>	<b>5467785</b>	<b>6035020</b>	<b>6681705</b>	<b>7411559</b>
Short Term	2173392	2349613	2542674	2754403	3004177	3283153	3595278	3945064	4337675	4784397	5287651
Pre Diploma	563110	617583	678025	745143	825801	916837	1019704	1136065	1267823	1419145	1590941
Diploma	194832	213590	234332	257280	284289	314560	348520	386656	429522	478163	532966

**Annual Labour Force Projection**

<b>Year</b>	<b>2077-78</b>	<b>2078-79</b>	<b>2079-80</b>	<b>2080-81</b>	<b>2081-82</b>	<b>2082-83</b>	<b>2083-84</b>	<b>2084-85</b>	<b>2085-86</b>	<b>2086-87</b>	<b>2087-88</b>
<b>Sector/Course</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>

<b>Health</b>	<b>7353</b>	<b>12602</b>	<b>13925</b>	<b>15387</b>	<b>16679</b>	<b>18397</b>	<b>20291</b>	<b>22381</b>	<b>24687</b>	<b>27229</b>	<b>30034</b>
Short Term	1622	2780	3072	3394	3679	4058	4476	4937	5446	6007	6626
Pre Diploma	2049	3511	3880	4287	4647	5125	5653	6236	6878	7586	8368
Diploma	3683	6311	6973	7706	8353	9213	10162	11209	12363	13636	15041
<b>Agriculture and Forestry</b>	<b>41118</b>	<b>86363</b>	<b>91027</b>	<b>95942</b>	<b>91760</b>	<b>96256</b>	<b>100973</b>	<b>105920</b>	<b>111110</b>	<b>118934</b>	<b>124880</b>
Short Term	33995	71404	75260	79324	75866	79583	83483	87574	91865	98333	103249
Pre Diploma	5554	11666	12296	12960	12395	13002	13640	14308	15009	16066	16869
Diploma	1568	3293	3471	3658	3499	3670	3850	4039	4237	4535	4762
<b>Engineering</b>	<b>69293</b>	<b>141198</b>	<b>158424</b>	<b>177752</b>	<b>243576</b>	<b>279869</b>	<b>321569</b>	<b>369483</b>	<b>424536</b>	<b>491065</b>	<b>564725</b>
Short Term	47583	96961	108790	122062	167264	192186	220822	253724	291529	337215	387797
Pre Diploma	17490	35639	39987	44865	61479	70640	81165	93258	107154	123946	142538
Diploma	4220	8599	9648	10825	14833	17043	19583	22500	25853	29905	34390
<b>Hospitality</b>	<b>5503</b>	<b>9288</b>	<b>10867</b>	<b>12715</b>	<b>5425</b>	<b>5762</b>	<b>6119</b>	<b>6498</b>	<b>6901</b>	<b>9457</b>	<b>10214</b>
Short Term	3007	5076	5939	6948	2965	3149	3344	3551	3771	5168	5582
Pre Diploma	2167	3657	4279	5006	2136	2269	2409	2559	2717	3724	4022
Diploma	329	555	650	760	324	344	366	388	413	565	610
<b>Total</b>	<b>123267</b>	<b>249451</b>	<b>274243</b>	<b>301796</b>	<b>357440</b>	<b>400283</b>	<b>448952</b>	<b>504283</b>	<b>567234</b>	<b>646686</b>	<b>729853</b>

<b>Year</b>	<b>2077-78</b>	<b>2078-79</b>	<b>2079-80</b>	<b>2080-81</b>	<b>2081-82</b>	<b>2082-83</b>	<b>2083-84</b>	<b>2084-85</b>	<b>2085-86</b>	<b>2086-87</b>	<b>2087-88</b>
<b>Sector/Course</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
Short Term	86208	176221	193061	211729	249774	278976	312125	349786	392611	446722	503253
Pre Diploma	27259	54473	60441	67118	80657	91036	102867	116361	131758	151322	171797
Diploma	9799	18758	20742	22949	27009	30271	33960	38136	42865	48641	54803
Advance Diploma		1837	3517	3889	4303	5064	5676	6368	7151	8037	9120

Methodology of this data projection has been done in Annex: 10b.

### Annex 10b: Occupation Workforce projection (2023-2032) for the TVET sector in Nepal

- This task aims to foresight the future requirements of occupational skills by sectors for the next ten years. The economy's complexity means it is impossible to make accurate projections of future skill needs in any detail or for more than a few years into the future.
- A report (Samartha 2019) quoting MOEST says, "demand forecast is not possible with the existing system; thus, system improvisation is therefore required."
- Methodologically, it is broadly accepted that purely quantitative methods and their results cannot dominate this kind of foresight activity. Therefore, assumption and normative interpretation of the future and relationships across variables factor heavily in the projection.
- The user of this projection should not try to match training to projected skills needs in any precise way; they should instead focus on distinguishing skills that are in growing demand from those in declining demand, and on skills that take a long time to learn (teach)
- The table below shows the major occupational groups and corresponding skills requirements for entrance to those job tasks in each specific occupational groups and corresponding skills requirements for entrance to those job tasks in each specific group.

Table 1: Occupation groups with Skill's level and qualification level

Major occupation group (with I/NSCO code)	Skill level <sup>5 6</sup>	Commensurate level of qualification
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<sup>5</sup> As per ISCO-08, Skill is defined as the ability to carry out the tasks and duties of a given job. Skill level is defined as a function of the complexity and range of tasks and duties to be performed in an occupation based on (a) the typical or characteristic tasks performed at each skill level (b) the types of skill required (in broad terms) and (c) the typical occupations classified at that skill level.

<sup>6</sup> The four ISCO-08 skill levels can be mapped to levels of education as below:

Table Name????

Skill Level	Education Qualification (ISCED 2011)	ISCED 2011	
4	6 Second stage of tertiary education (leading to an advanced research qualification)		
4	5a First stage of tertiary education, 1st degree (medium duration)		
3	5b First stage of tertiary education (short or medium duration)		
2	4 post-secondary, non-tertiary education	"building on secondary education, preparing for labour market entry as well as tertiary education."	Diploma (10+3 years)
2	3 Upper secondary level of education	8-11 years of schooling	Pre-diploma (10+1.6 years)

1 - Managers	High (3, 4)	Bachelor's degree equivalence or higher; Diploma  Pre-Diploma
2 - Professionals	High (3, 4)	
3 - Technicians and associate professionals	High (3, 4)	
4 - Clerical support workers	Medium (2)	
5 - Service and sales workers	Medium (2)	
6 - Skilled agricultural, forestry and fishery workers	Medium (2)	
7 - Craft and related trades workers	Medium (2)	
8 - Plant and machine operators, and assemblers	Medium (2)	
9 - Elementary occupations	Low (1)	
0 - Armed forces occupations	Not classified	

Table 2: Current state of occupation by skills level

Occupation (ISCO-08) - main job	1 - Skill level 1 (low)	2 - Skill level 2 (medium)	3 - Skill levels 3 and 4 (high)	4 - Not elsewhere classified
1 - Managers	0	0	84543.3	0
2 - Professionals	0	0	579799.3	0
3 - Technicians and associate professionals	0	0	314588.2	0
4 - Clerical support workers	0	220354.6	0	0
5 - Service and sales workers	0	1685521.4	0	0
6 - Skilled agricultural, forestry and fishery workers	0	968230.1	0	0
7 - Craft and related trades workers	0	1389546	0	0
8 - Plant and machine operators, and assemblers	0	382277.1	0	0
9 - Elementary occupations	1439476.4	0	0	0
0 - Armed forces occupations	0	0	0	21857.9
Total	1439476.4	4645929.2	978930.8	21857.9

- The task aims to make projections of the following for sectors by skill level.
  - Health
  - Engineering
  - Hospitality
  - Agriculture and Forestry
- Next is the stepwise description of the projection methods and results.

### Step 1: Assessing baseline employment scenario (2017-18)

- The only large-scale reliable representative survey data available on occupational skill is National Labour Force Survey 2017-18 (NLFS), which shall provide a baseline employment scenario.
- The NLFS provides employment information of 366 occupations (4-digit level) aggregated (2-digit level) by skill levels. The table below shows 40 occupations (other than not classified armed services) by three skill levels.

2	2 Lower secondary level of education	6-8 years of schooling	TVET Stream/Short Term Courses
1	1 Primary level of education	5 years of schooling	

Table 3: Occupations and Skill levels

Occupation (ISCO-08), 2 digit level - main job	1 - Skill level 1 (low)	2 - Skill level 2 (medium)	3 - Skill levels 3 and 4 (high)	4 - Not elsewhere classified
01 - Commissioned armed forces officers	0	0	0	2078
02 - Non-commissioned armed forces officers	0	0	0	1093
03 - Armed forces occupations, other ranks	0	0	0	18687
11 - Chief executives, senior officials and legislators	0	0	20137	0
12 - Administrative and commercial managers	0	0	14149	0
13 - Production and specialised services managers	0	0	33755	0
14 - Hospitality, retail and other services managers	0	0	16502	0
21 - Science and engineering professionals	0	0	16615	0
22 - Health professionals	0	0	31577	0
23 - Teaching professionals	0	0	458479	0
24 - Business and administration professionals	0	0	33634	0
25 - Information and communications technology professionals	0	0	1454	0
26 - Legal, social and cultural professionals	0	0	38041	0
31 - Science and engineering associate professionals	0	0	58098	0
32 - Health associate professionals	0	0	104972	0
33 - Business and administration associate professionals	0	0	107903	0
34 - Legal, social, cultural and related associate professionals	0	0	26645	0
35 - Information and communications technicians	0	0	16970	0
41 - General and keyboard clerks	0	55436	0	0
42 - Customer services clerks	0	79711	0	0
43 - Numerical and material recording clerks	0	38177	0	0
44 - Other clerical support workers	0	47031	0	0
51 - Personal service workers	0	229047	0	0
52 - Sales workers	0	1368368	0	0
53 - Personal care workers	0	22692	0	0
54 - Protective services workers	0	65414	0	0
61 - Market-oriented skilled agricultural workers	0	917936	0	0
62 - Market-oriented skilled forestry, fishery and hunting workers	0	11285	0	0
63 - Subsistence farmers, fishers, hunters and gatherers	0	39010	0	0
71 - Building and related trades workers, excluding electricians	0	652014	0	0
72 - Metal, machinery and related trades workers	0	138864	0	0
73 - Handicraft and printing workers	0	159882	0	0
74 - Electrical and electronic trades workers	0	56546	0	0
75 - Food processing, wood working, garment and other craft and related trades	0	382240	0	0
81 - Stationary plant and machine operators	0	96115	0	0
82 - Assemblers	0	24320	0	0
83 - Drivers and mobile plant operators	0	261842	0	0
91 - Cleaners and helpers	166171	0	0	0
92 - Agricultural, forestry and fishery labourers	490080	0	0	0
93 - Labourers in mining, construction, manufacturing and transport	634366	0	0	0
94 - Food preparation assistants	61184	0	0	0
95 - Street and related sales and service workers	7264	0	0	0
96 - Refuse workers and other elementary workers	80411	0	0	0
<b>Total</b>	<b>1439476</b>	<b>4645929</b>	<b>978931</b>	<b>21858</b>

**Step 2: Aggregating sector-wise employment status**

- The occupations related to four target sectors (Health, Agriculture and Forestry, Engineering and Hospitality) are further grouped to calculate aggregate employment. Four areas/sectors are selected to make projections.

Table 4: Workforce by sectors and Skills level

Sector	Skill level 1 (low)	Skill level 2 (medium)	Skill levels 3 and 4 (high)	TOTAL
<b>Health</b>			<b>136,550</b>	<b>136,550</b>
22 - Health professionals			31577	
32 - Health associate professionals			104972	
<b>Agriculture</b>	<b>490,080</b>	<b>968,230</b>		<b>1,458,310</b>
92 - Agricultural, forestry and fishery labourers	490080			
61 - Market-oriented skilled agricultural workers		917936		
62 - Market-oriented skilled forestry, fishery and hunting workers		11285		
63 - Subsistence farmers, fishers, hunters and gatherers		39010		
<b>Engineering</b>		<b>438,823</b>	<b>35,039</b>	<b>473,862</b>
74 - Electrical and electronic trades workers		56545.9		
83 - Drivers and mobile plant operators		261841.5		
81 - Stationary plant and machine operators		96115.4		
82 - Assemblers		24320.2		
21 - Science and engineering professionals			16615.3	
25 - Information and communications technology professionals			1453.8	
35 - Information and communications technicians			16969.9	
<b>Hospitality</b>	<b>61,184</b>		<b>16,502</b>	<b>77,686</b>
94 - Food preparation assistants	61184.2			
14 - Hospitality, retail and other services managers			16501.8	
<b>TOTAL</b>	<b>551,264</b>	<b>1,407,053</b>	<b>188,090</b>	<b>2,146,408</b>

**Step 3: calculating sector-wise skill distribution employment status**

- The data shows, for example, all occupations within health sectors are of skill level 3 and 4 or high skills, whereas two-thirds of employment in agriculture are skill level 2 or medium



skill and the remaining one-third are skill level 1 or low skill. (Note: NLFS only includes agricultural and forestry sector labourers who have engaged in market operation as producers or labourers and excludes those in the subsistence agriculture activities for non-market purposes)

- The table below shows the distribution of skill levels across the four-target sector.

Table 5: Distribution of skill levels across the four-target sector

Sector	Skill level 1 (low)	Skill level 2 (medium)	Skill levels 3 and 4 (high)
Health			100%
Agriculture	34%	66%	
Engineering		93%	7%
Hospitality	79%		21%
<b>Average of above four sectors</b>	<b>26%</b>	<b>66%</b>	<b>9%</b>
<b>Average of all sectors in the economy</b>	<b>20%</b>	<b>66%</b>	<b>14%</b>

#### Step 4: Projecting target sector employment growth

- The employment growth in a particular sector is projected based on the growth of that industry/sector. While employment and sectoral economic growth are highly correlated, we understand that growth is **NOT** the only factor influencing future employment and skills requirements.
- In fact, the structure of the population, technological progress, adaptation and productivity, composition of the economy, development of domestic private sectors etc. greatly impacts the employment level and its sectoral and skill composition.
- We assume that some of the structural factors are considered while making projections about the economy by the planners (for example, in Fifteenth Plan, SDG targets); other factors could not be considered due to lack of sufficient data at the desired disaggregation.
- Hence, for the projection, sectoral economic growth is considered a major driver of the demand for skilled manpower in the future. That is, agriculture manpower demand is driven by the agriculture sector's growth, health manpower by growth in 'human health and social work activities in the economy and so forth.
- After the baseline of 2017-18, actual sectoral growth (produced by CBS) has been taken for the period up to 2021; from the fifteenth plan for the period of 2022-2024 and a combination of long-term projection in the fifteenth plan and SDG 2030 for the period of 2025-2032.
- Based on the sectoral growth rate, employment in the target sector is projected for 2022-2032 in a linear way, as shown below.

Table 6: Projecting target sector employment growth

Year	2014-75	2015-76	2016-77	2017-78	2018-79	2019-80	2020-81	2021-82	2022-83	2023-84	2024-85	2025-86	2026-87	2027-88
<b>Sectoral Growth</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
Human health and social work activities	5.87	6.69	5.20	6.53	10.5	10.5	10.5	10.3	10.3	10.3	10.3	10.3	10.3	10.3
Agriculture, forestry and fishing	2.61	5.16	2.23	2.64	5.4	5.4	5.4	4.9	4.9	4.9	4.9	4.9	5.0	5.0
Engineering Regulated	14.51	12.71	-7.18	6.37	12.2	12.2	12.2	14.9	14.9	14.9	14.9	14.9	15.0	15.0
Accommodation and food service activities	12.21	9.92	-36.97	11.20	17	17	17	6.2	6.2	6.2	6.2	6.2	8.0	8.0
<b>Health</b>	136550	145685	153260	163263	180406	199349	220280	242969	267995	295598	326045	359628	396669	437526
<b>Agriculture</b>	1458310	1533514	1567770	1609140	1696033	1787619	1884150	1976474	2073321	2174914	2281485	2393277	2512941	2638588
<b>Engineering</b>	473862	534067	495707	527276	591604	663779	744760	855730	983233	1129735	1298065	1491477	1715199	1972479
<b>Hospitality</b>	77686	85394	53820	59847	70021	81925	95852	107195	108106	114809	121927	129487	138845	151033

#### Step 5: Projecting target sector employment growth

- Based on the projections made in step 4, the skill levels further disaggregate sectoral employment.
- For the disaggregation, we use the same proportion of skills calculated in step 3. The assumption is that the economy's composition would remain the same and demand similar skill levels within a sector. This is a huge assumption to make, but due to the non-availability of reasonable macroeconomic scenario projection at the macroeconomic level, we follow the linear distribution of skill level.
- Hence, each target sector (Health, Agriculture, Engineering and Hospitality) is further disaggregated by the program Short-term, Pre-diploma and Diploma.

- For the advance diploma, the potential demand is assumed to be 25% of graduates of diploma programs (the graduation rate for diploma program is targeted at 75%) based on experts' opinion.
- Hence, the annual projection by sectors and qualification level is calculated as table 7:

**Table 7: Projecting target sector employment growth**

Year	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88
Sector/Course	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Health</b>	<b>7353</b>	<b>12602</b>	<b>13925</b>	<b>15387</b>	<b>16679</b>	<b>18397</b>	<b>20291</b>	<b>22381</b>	<b>24687</b>	<b>27229</b>	<b>30034</b>
Short Term	1622	2780	3072	3394	3679	4058	4476	4937	5446	6007	6626
Pre Diploma	2049	3511	3880	4287	4647	5125	5653	6236	6878	7586	8368
Diploma	3683	6311	6973	7706	8353	9213	10162	11209	12363	13636	15041
<b>Agriculture and Forestry</b>	<b>41118</b>	<b>86363</b>	<b>91027</b>	<b>95942</b>	<b>91760</b>	<b>96256</b>	<b>100973</b>	<b>105920</b>	<b>111110</b>	<b>118934</b>	<b>124880</b>
Short Term	33995	71404	75260	79324	75866	79583	83483	87574	91865	98333	103249
Pre Diploma	5554	11666	12296	12960	12395	13002	13640	14308	15009	16066	16869
Diploma	1568	3293	3471	3658	3499	3670	3850	4039	4237	4535	4762
<b>Engineering</b>	<b>69293</b>	<b>141198</b>	<b>158424</b>	<b>177752</b>	<b>243576</b>	<b>279869</b>	<b>321569</b>	<b>369483</b>	<b>424536</b>	<b>491065</b>	<b>564725</b>
Short Term	47583	96961	108790	122062	167264	192186	220822	253724	291529	337215	387797
Pre Diploma	17490	35639	39987	44865	61479	70640	81165	93258	107154	123946	142538
Diploma	4220	8599	9648	10825	14833	17043	19583	22500	25853	29905	34390
<b>Hospitality</b>	<b>5503</b>	<b>9288</b>	<b>10867</b>	<b>12715</b>	<b>5425</b>	<b>5762</b>	<b>6119</b>	<b>6498</b>	<b>6901</b>	<b>9457</b>	<b>10214</b>
Short Term	3007	5076	5939	6948	2965	3149	3344	3551	3771	5168	5582
Pre Diploma	2167	3657	4279	5006	2136	2269	2409	2559	2717	3724	4022
Diploma	329	555	650	760	324	344	366	388	413	565	610
<b>Total</b>	<b>123267</b>	<b>249451</b>	<b>274243</b>	<b>301796</b>	<b>357440</b>	<b>400283</b>	<b>448952</b>	<b>504283</b>	<b>567234</b>	<b>646686</b>	<b>729853</b>
Short Term	86208	176221	193061	211729	249774	278976	312125	349786	392611	446722	503253
Pre Diploma	27259	54473	60441	67118	80657	91036	102867	116361	131758	151322	171797
Diploma	9799	18758	20742	22949	27009	30271	33960	38136	42865	48641	54803
Advance Diploma		1837	3517	3889	4303	5064	5676	6368	7151	8037	9120

**A note on projection:**

- The projections of the levels of employment are only moderately reliable at an aggregate level. Reliability fell as projections were provided at a more detailed level, disaggregated by occupation and by skill level.
- Reliability is too low for projections to be valuable for planning TVET capacity at specific skills or occupations. Reliability falls as the forecast period increases.
- Therefore, the projection number needs to be combined with other information sources, such as the expected growth or decline of an occupation, technology use and labour replacement, etc.
- The projection period is better confined to around five years; maybe update them regularly with the latest information (push for NLFS to be undertaken more frequently, at least at five years interval).
- In order to make a more accurate projection, we need to undertake separate, bottom-up, high-quality studies of expected skills demand for those major skills that take a long time to learn and to teach (diploma, advanced diploma and above).

## Annex 11: Details of costing

### Annex 11.1: Details of costing under planned growth scenario (Scenario A)

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Provide access to market responsive TVET programs at local levels targeting inclusion (by also including full board scholarships to the students from local levels where it is not possible to open schools)	-	2,500,000	2,500,000	2,500,000	3,750,000	-	-	
Provide long term TVET program	-	26,446,800,600	34,026,895,800	46,530,236,160	47,277,509,760	48,273,874,560	52,657,879,680	
	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	
Enhance gender balance in TVET learning opportunities	31,816,990	38,778,300	45,243,300	63,213,120	64,228,320	66,977,280	73,059,840	
	-	-	-	-	-	-	-	
	-	-	147,532,500	403,488,000	614,952,000	1,046,520,000	1,141,560,000	
	-	-	393,420,000	537,984,000	546,624,000	558,144,000	608,832,000	
Provide short term TVET programs for unemployed youth	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	
	5,727,182,500	6,274,482,500	6,881,192,500	8,117,655,000	9,066,720,000	10,144,062,500	11,368,045,000	
Provide training to existing worker using various TVET models	84,000,000	120,000,000	180,000,000	240,000,000	300,000,000	360,000,000	420,000,000	
Provide training to migrant workers using various TVET models	50,000,000	50,000,000	200,000,000	400,000,000	600,000,000	800,000,000	1,000,000,000	
Provide training to returnee migrant workers	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Increase full board scholarship quota for needy people and for ensuring access (from the local levels without TVET schools)	135,280,000	120,080,000	104,880,000	89,680,000	66,880,000	66,880,000	66,880,000	
Increase full board scholarship quota for needy people and for ensuring social inclusion	85,120,000	127,680,000	170,240,000	170,240,000	170,240,000	170,240,000	170,240,000	
Increase classified scholarship (Lakshit barga chattrabriti provides tuition fee free education) scheme	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	
Conduct classified scholarship entrance exam in the same centre where general entrance exam is held	-	-	-	-	-	-	-	
Prepare sector education brief (Feasibility study, projection, structure)	-	-	25,000,000	25,000,000	47,500,000	-	-	
Expand number of school	-	-	-	-	-	-	-	
	3,000,000	3,000,000	3,000,000	3,000,000	47,000,000	51,000,000	88,000,000	
	1,150,000	700,000	700,000	700,000	700,000	700,000	5,200,000	
Establish Schools for Person with Disability (0.13%)	1,500,000	1,000,000	1,000,000	1,500,000	1,000,000	1,500,000	2,000,000	
Diversify horizontal and vertical expansion of TVET programs including on green technology/ energy and jobs	-	-	9,000,000	2,726,865,600	2,739,440,800	7,024,394,800	6,945,015,600	

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Introduce Preparatory TVET in Grades 6 to 8	-	-	1,500,000	-	-	-	-	-
Prepare sector education brief (Feasibility study, projection, structure) for L5 and above	-	15,000,000	32,500,000	-	-	-	-	-
Increase sectors of economy to offer TVET programs - long and short term programs by also keeping focus on green technology/ energy and jobs	-	-	-	-	-	-	-	-
Make all course curriculum modular, competency and credit based	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Open higher level TVET qualification through NVQS based multi entry and exit education structure	-	-	-	-	-	-	-	-
Establish separate hostel for girls, boys and disability for needy	58,039,680	58,039,680	498,619,400	942,253,840	1,388,943,000	76,368,000	76,368,000	
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Develop/refurbish the current infrastructure to ensure access of LWD to instructional learning environment (ILE)	-	7,004,800,000	10,507,200,000	14,009,600,000	17,512,000,000	-	-	-
Introduce/scale up multi shift learning opportunity	-	-	-	-	-	-	-	-

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
	-	-	-	-	-	-	-	-
<b>Sub total-Objective No. 1</b>	<b>6,377,089,170</b>	<b>40,462,861,080</b>	<b>53,430,423,500</b>	<b>74,463,915,720</b>	<b>80,647,487,880</b>	<b>68,840,661,140</b>	<b>74,823,080,120</b>	
Operationalise TVET accreditation body as a wing of National Quality Assurance Authority (NQAA) (conversion of current CTEVT)	800,000	-	-	-	-	-	-	
Accredit ate TVET schools	24,300,000	48,900,000	49,200,000	42,030,000	42,705,000	72,675,000	79,275,000	
Operationalise instructors accreditation/ licensing system	29,034,000	890,000	390,000	390,000	5,823,000	780,000	3,432,000	
Operationalize long term TVET sector plan for instructors preparation/development	500,000	500,000	500,000	500,000	500,000	500,000	500,000	
Hire instructors as per approved organogram	33,930,000	11,700,000	11,700,000	11,700,000	174,690,000	23,400,000	102,960,000	
Put instructors preparation plan in place	500,000	500,000	500,000	500,000	500,000	500,000	500,000	
	-	-	750,000	-	-	-	-	
Ensure instructional training to working instructors including ICT based learning management system (LMS)	95,418,300	281,079,200	348,976,500	9,490,000	141,693,000	18,980,000	83,512,000	
Increase occupational skills upgradation training (including various models such as apprenticeship and enterprise development of TVET)	223,720,000	292,030,000	478,050,000	13,000,000	194,100,000	26,000,000	114,400,000	

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Provide training to management/ administrative staff	38,180,000	38,686,000	39,192,000	39,698,000	47,334,000	24,196,000	26,450,000	
Provide training to MoEST and province, district and local level personnel	-	2,300,000	2,300,000	1,150,000	-	-	-	
Provide higher degree educational opportunity for underqualified instructors only	-	74,400,000	74,400,000	74,400,000	74,400,000	148,800,000	74,400,000	
Reduce instructors' turnover	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	
Introduce institute organogram with provision of permanent instructors	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	
Ensure schools have all instructors as per the approved organogram	-	-	-	-	-	-	-	
Establish school fund to engage instructor and student in production activities (Including earning from consultancy services by teachers and students after providing them with approved incentives/share)	500,000	-	-	-	-	-	-	
Reduce share of part time instructors	-	-	-	-	-	-	-	
Mobilized expert worker/ successful entrepreneurs from world of work to deliver lectures/ exchange session at school level	-	-	-	-	-	-	-	

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Make work based learning /OJT mandatory in all TVET programs	-	-	-	-	-	-	-	-
Establish effective collaboration between TVET system and BIAs.	500,000	-	-	-	-	500,000	-	-
Establish effective collaboration between TVET system and BIAs.	73,993,000	86,174,000	98,355,000	134,496,000	136,656,000	139,536,000	152,208,000	-
Operationalise NVQS implementation manuals for aligning learning resources with NVQF level descriptors (Covered by research, standard/curriculum development, teachers' training and development, management etc. )	3,700,000	3,700,000	3,700,000	3,700,000	3,700,000	3,700,000	700,000	-
Ensure learning resources (standards/ curricula) NVQF level descriptors based	-	-	-	-	-	-	-	-
Reform standards for implementation of NVQS	-	-	-	-	-	-	-	-
Reform curricula for implementation of NVQS and also facilitating of multi-exit/ entry provision for facilitating 'self financed learning' and offering seamless academic and self/employment career path	-	-	-	-	-	-	-	-
Ensure bridging inputs for entrance weak SEE graduates.	-	-	-	-	-	-	-	-



Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Customise curricula to include specific enterprise development competence with individuals enterprise development projects	-	-	-	-	-	-	-	-
Review weight of science and mathematics in curricula to ensure NVQF Level descriptor alignment	-	-	-	-	-	-	-	-
Increase the share of schools/ institutes with more than 75% workable machine and equipment	-	-	9,660,000,000	10,180,000,000	-	-	-	-
Increase the share of schools/ institutes with more than 75% workable machine and equipment	665,937,000	775,566,000	885,195,000	1,210,464,000	1,229,904,000	1,255,824,000	1,369,872,000	
Enhance ICT and e-learning system for distance/virtual learning (collaboration with expert teacher not available in any specific school/ province)	-	65,080,000	163,700,000	164,700,000	166,200,000	1,009,200,000	354,000,000	
Merge schools with less than the target ratio	-	-	-	-	-	-	-	-
Maintain teacher-student ratio	-	-	-	-	-	-	-	-
Increase cycle completion rate (for students who complete specific qualification of study continuously, semester 1 to 4)	-	-	-	-	-	-	-	-

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Increase survival rate (within additional 3 years time) (for students who complete specific qualification of study continuously, semester 1 to 4)	-	-	-	-	-	-	-	-
Increase promotion rate to Grade 12 (diploma level)	-	-	-	-	-	-	-	-
Operationalize technical backstopping (Monitoring) system for Provincial and Local level	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	
	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	
Implement module/chapters/tasks based competence assessment led formative assessment for measuring learning outcomes	7,399,300	8,617,400	9,835,500	13,449,600	13,665,600	13,953,600	15,220,800	
Establish practice of Instructors' evaluation by students	-	-	-	-	-	-	-	-
Institutionalise practical based assessment (final examination) system	-	-	-	-	-	-	-	-
	29,597,200	34,469,600	39,342,000	53,798,400	54,662,400	55,814,400	60,883,200	
Institutionalise Office of Controller of Examination (OCEs) capacity to swiftly facilitate examination and ensuring timely certification (not more than two months)	-	-	-	-	-	-	-	-

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Restructure CTEVT OCEs examination/ assessment system with purpose to make it provinces connected ICT based system conduction/facilitation and certification	4,000,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Reduce the duration between final examination and certification	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000
Digitalize outcomes of both formative/internal assessment and final assessment for making quick and swift (real time)	-	-	-	-	-	-	-	-
Establish/upgrade accredited skill test centres	-	450,000	500,000	500,000	500,000	500,000	500,000	500,000
<b>Sub total-Objective No. 2</b>	<b>1,410,508,800</b>	<b>1,905,042,200</b>	<b>12,046,586,000</b>	<b>12,133,966,000</b>	<b>2,467,033,000</b>	<b>2,974,859,000</b>	<b>2,618,813,000</b>	
Increase number of graduates in long term (pre-Diploma, Diploma and advance diploma) and short term programs	-	-	-	-	-	-	-	-
Reform standards and curricula based on NVQF level descriptors	-	18,000,000	57,200,000	67,600,000	42,600,000	31,950,000	-	-
	-	63,000,000	73,000,000	84,000,000	55,000,000	37,500,000	37,500,000	
	-	21,600,000	32,400,000	10,800,000	-	-	-	-
Publish TVET sector annual report annually	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000
Continue publication of TVET journals	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Enhance employment rate of the graduates	-	-	-	-	-	-	-	-

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Institutionalise NVQF level descriptor based ILE resources (standards and curricula) preparation across the sector	-	-	-	-	-	-	-	-
Ensure all TVET bodies have at least 50% members (outside Chair) are BIA representatives	-	-	-	-	-	-	-	-
Ensure all heads of BIAs are by default members of relevance TVET bodies (CTEVT Assembly, council etc.)	-	-	-	-	-	-	-	-
Ensure TVET schools have 50% members from BIAs	-	-	-	-	-	-	-	-
Conduct study on system for incentivising business and industry to encourage productive partnership	-	-	-	-	-	-	-	-
Establish SSCs through legislative instruments by defining their roles, responsibilities and incentives	-	-	-	-	-	-	-	-
Form sector skill councils (SSCs)	-	11,500,000	23,000,000	34,500,000	46,000,000	46,000,000	46,000,000	46,000,000
<b>Sub total-Objective No. 3</b>	<b>3,900,000</b>	<b>118,000,000</b>	<b>189,500,000</b>	<b>200,800,000</b>	<b>147,500,000</b>	<b>119,350,000</b>	<b>87,400,000</b>	

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Revise/put NVQS implementation provision in current/new TVET Act and other relevant TVET legislative instruments	-	-	-	-	-	-	-	-
Ensure recognition of all TVET Qualification as equivalent to General education Qualification	-	-	-	-	-	-	-	-
Revise the current NVQF to include technical education to term it as 'National TVE Qualification Framework'	-	-	-	-	-	-	-	-
Revise the current NVQF Levels from L1 to L8 to clarify level 5 as advance Diploma	-	-	-	-	-	-	-	-
Introduce qualifications for Advance Diploma and Bachelors qualification level	-	-	-	-	-	-	-	-
Establish High level Coordination Committee (HLCC) including membership from VC's of universities in the convenorship of NQAA (next form major role of CTEVT) for ensuring recognition of TVET qualifications and employment through TVET Act for NVQS implementation facilitation	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Establish Technical level Coordination Committee (TLCC) including	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
membership from Deans of universities in the convenorship of NQAA (next form major role of CTEVT) for ensuring recognition of TVET qualifications and employment through TVET Act for NVQS implementation facilitation								
Prepare NVQS implementation manuals	-	1,000,000	1,000,000	1,000,000	-	-	-	
Enhance the preparatory TVET at the Grades 6,7, and 8	-	-	-	-	-	-	-	
Manage bridging system to facilitate movement from TVET to General Education and Vice versa at relevant NVQ Levels	-	-	-	-	-	-	-	
Convert existing Technical Stream as Secondary qualification (from 12.5 yrs. to 12 yrs.' education)	-	-	-	-	-	-	-	
Reduce duration of 3 yrs. Diploma program into 2 yrs. Diploma program	-	-	-	-	-	-	-	
Convert existing Pre-diploma into Grade 9-10 qualification level (using modular and credit based)	-	-	-	-	-	-	-	
Ensure credit value of erstwhile pre-diploma	-	-	-	-	-	-	-	

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Resolve recognition issue of TVET qualifications from Public Service Commission and universities	-	-	-	-	-	-	-	-
Align existing Skills level 1 to 4 with NVQS	-	-	-	-	-	-	-	-
Increase number of annual skills testing graduates	677,217,730	741,933,850	813,674,120	959,883,190	1,072,103,060	1,199,498,510	1,344,225,890	
Increase number of Recognition of Prior Learning (RPL) graduates	67,722,200	74,195,520	81,369,120	95,989,600	107,211,160	119,948,570	134,423,870	
Align NVQF with relevant international and South Asia Regional Qualification Frameworks (SARQF) to facilitate workforce mobility across the SA borders	-	-	-	-	-	-	-	-
<b>Sub total-Objective No. 4</b>	<b>745,639,930</b>	<b>817,829,370</b>	<b>896,743,240</b>	<b>1,057,572,790</b>	<b>1,180,014,220</b>	<b>1,320,147,080</b>	<b>1,479,349,760</b>	
Prepare HRM Plan for federal level TVET system (CTEVT, CEHRD, CDC, NEB and others)	-	4,000,000	-	-	-	-	-	-
Develop HR capacities of TVET personnel at federal levels (bureaucrats and academics, BIAs) following the HRM plan	-	-	-	-	-	-	-	-
Provide incentive/allowance head-teacher, coordinator, account personnel of TVET institute	1,000,000	1,000,000	1,000,000	-	-	-	-	-

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Operationalize Federal/Provincial//Local level/school level TVET MIS (TMIS), financial MIS (FMIS) and Employment MIS (EmMIS)	-	-	-	-	-	-	-	-
Establish Learner's support system (career guidance and counselling and employment facilitation) in each school in place	291,600,000	293,400,000	295,200,000	168,120,000	170,820,000	174,420,000	190,260,000	
Involve School executive committee(SEC) in decision making process.	-	-	-	-	-	-	-	
Establish student support unit (SSU)	-	-	-	-	-	-	-	
Prepare HRM plan for institute /school level	-	97,800,000	100,800,000	100,800,000	102,300,000	103,800,000	26,400,000	
Provide School Management training to Head Teacher/Principal	-	-	-	-	-	-	-	
Maintain IT based tracer study system at school level annually	48,600,000	48,900,000	49,200,000	28,020,000	28,470,000	29,070,000	31,710,000	
	500,000	500,000	500,000	500,000	500,000	500,000	500,000	
Provide sufficient budget to ensure quality ILE at school level	-	-	-	-	-	-	-	
Establish School Fund for enhancing school income with purpose to benefit students, instructors and school	162,000,000	164,500,000	166,000,000	96,000,000	99,500,000	103,000,000	132,000,000	



Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Establish production/ consultancy unit structure in schools with market linkage (through outlets)	-	-	-	-	-	-	-	-
Introduce partnership scheme with BIAs for some financial incentives to the OJT learners	221,979,000	258,522,000	295,065,000	403,488,000	409,968,000	418,608,000	456,624,000	
Conduct Federal level exchange meetings/seminars on TVET regularly	500,000	500,000	500,000	500,000	500,000	500,000	500,000	
Conduct province and local level exchange meetings/seminars on TVET regularly	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	
	-	21,300,000	21,300,000	21,300,000	21,300,000	21,300,000	21,300,000	
	81,000,000	81,500,000	82,000,000	46,700,000	47,450,000	48,450,000	52,850,000	
Improve NSCO aligning with NVQF level descriptors and occupations in the existing/upcoming industries/economic sectors	-	-	-	-	-	-	-	
	-	8,000,000	-	-	-	-	-	
	961,909,000	1,120,262,000	1,278,615,000	1,748,448,000	1,776,528,000	1,813,968,000	1,978,704,000	
Establish system, in collaboration with BIAs, more specifically, with SSCs for forecasting workforce demand as per NVQF aligned NSCO	-	-	1,500,000	-	-	-	-	

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Partner with CBS to incorporate NVQF based occupational-level data in National Labour Force Survey (NLFS)	-	-	-	-	-	-	-	-
Institutionalize coordination among different levels of Governments on planning of specific research and during research design and sharing the findings	-	-	-	-	-	-	-	-
Update/maintain the findings of all levels of studies in TVET knowledge management system (TMIS/EmMIS)	500,000	500,000	500,000	500,000	500,000	500,000	500,000	
Develop NSCO based needs assessment survey as pre-requisite for offering qualifications in other sectors	-	-	3,000,000	4,500,000	-	-	-	-
Conduct impact studies at national level	-	-	4,000,000	-	-	4,000,000	-	-
Continue publication of comprehensive TVET progress report	-	500,000	500,000	500,000	500,000	500,000	500,000	
Operationalize Communication strategy at federal, provincial and institute level	35,750,000	34,950,000	35,150,000	21,030,000	21,330,000	21,730,000	23,490,000	
Ensure toilets for both gender	-	-	-	-	-	-	-	-
Manage first aid facilities	-	-	-	-	-	-	-	-
Manage Canteen facilities	-	-	-	-	-	-	-	-
Put student grievance handling unit	-	-	-	-	-	-	-	-
Establish GESI Unit	-	-	-	-	-	-	-	-

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Ensure school with head teacher with school management training	-	-	-	-	-	-	-	-
Allocate separate coordinate for program	-	-	-	-	-	-	-	-
Give preference to female while making new hire to encourage gender equity	-	-	-	-	-	-	-	-
Give preference to people with disability while making new hire to encourage social inclusion	-	-	-	-	-	-	-	-
Ensure active SMC in each school	-	-	-	-	-	-	-	-
Manage electricity in schools	-	-	-	-	-	-	-	-
Organize skill competition at province level	-	-	-	-	-	-	-	-
Organize Job fare at local level	-	-	-	-	-	-	-	-
Manage library in schools	-	-	-	-	-	-	-	-
<b>Sub total-Objective No. 5</b>	<b>1,806,738,000</b>	<b>2,137,534,000</b>	<b>2,336,230,000</b>	<b>2,641,806,000</b>	<b>2,681,066,000</b>	<b>2,741,746,000</b>	<b>2,916,738,000</b>	
Formulate TVET principles guided TVET Act and Rule (in context of federalisation)	-	-	-	-	-	-	-	-
Convert CTEVT into National Quality Assurance Authority (NQAA) with main responsibility on regulatory/quality assurance (research, ILE resources development including chief master instructors preparation, instructors' accreditation, and assessments	-	-	-	-	-	-	-	-

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
(academic and physical) and certification) functions								
Align NVQF with South Asia Regional Qualification Frameworks (SARQF) and relevant international frameworks to facilitate workforce mobility across the SA borders	-	-	-	-	-	-	-	-
Establish autonomous Provincial TVET Authorities (TVETAs) at province level under Provincial Ministry of Social Development/ Ministry of Education	-	-	-	-	-	-	-	-
Assign regulatory responsibility/ quality assurance responsibility to CTEVT	-	-	-	-	-	-	-	-
Assign responsibility of COEs/Model Schools to CTEVT	-	-	-	-	-	-	-	-
Introduce stand-alone and TVET principles guided TVET Policy	-	-	-	-	-	-	-	-
Facilitate preparation of stand-alone and TVET principles guided Provincial TVET Policy	-	-	-	-	-	-	-	-

Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)							
	80	81	82	83	84	85	86	
Ensure coordination mechanism in the spirit of Federal and Provincial TVET Acts	-	-	-	-	-	-	-	-
SWAp Approach of financing	-	-	-	-	-	-	-	-
Affordable fee structure (Constituent, Partnership, TECS and Private)	-	300,000	-	-	-	300,000	-	-
Make TVET up to diploma level free of costs (Publicly funded programs)	-	-	-	-	-	-	-	-
Access to finance (soft loan)	-	-	-	-	-	-	-	-
Facilities soft loan to new entrepreneurs	-	-	-	-	-	-	-	-
Integration in Government Accounting and reporting system	-	-	-	-	-	-	-	-
Introduce cost sharing system at three level of government	-	-	-	-	-	-	-	-
Establish technical backstopping mechanism through a Joint Team of Federal, provincial and local level TVET authorities	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000
<b>Sub total-Objective No. 6</b>	<b>3,600,000</b>	<b>3,900,000</b>	<b>3,600,000</b>	<b>3,600,000</b>	<b>3,600,000</b>	<b>3,900,000</b>	<b>3,600,000</b>	<b>3,600,000</b>
<b>Grand Total</b>	<b>10,347,475,980</b>	<b>45,445,166,731</b>	<b>68,903,082,822</b>	<b>90,501,660,593</b>	<b>87,126,701,184</b>	<b>76,000,663,305</b>	<b>81,928,980,966</b>	

**Annex 11b: Details of costing under business-as-usual growth scenario (Scenario B)**

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
10000	10100	10101	Provide access to market responsive TVET programs at local levels targeting inclusion (by also including full board scholarships to the students from local levels where it is not possible to open schools)	7,250,000	2,500,000	2,500,000	2,500,000	3,750,000	-	-	-	-	-	18,500,000
10000	10100	10102-1	Provide long term TVET program	22,474,593,900	23,508,233,100	27,719,353,080	28,994,561,640	30,328,237,440	31,723,148,160	33,182,407,440	34,708,782,960	36,305,388,360	37,975,683,240	306,920,389,320
10000	10100	10102-2		-	-	-	-	-	-	-	-	-	-	-
10000	10100	10102-3		-	-	-	-	-	-	-	-	-	-	-
10000	10100	10103-1	Enhance gender balance in TVET learning opportunities	31,489,330	34,469,550	36,856,580	39,390,230	41,202,080	44,014,080	46,038,720	49,159,740	51,421,090	54,884,500	428,925,900
10000	10100	10103-2		-	-	-	-	-	-	-	-	-	-	-
10000	10100	10103-3		-	-	120,184,500	251,427,000	394,488,000	687,720,000	719,355,000	752,445,000	787,057,500	823,267,500	4,535,944,500
10000	10100	10103-4		-	-	320,492,000	335,236,000	350,656,000	366,784,000	383,656,000	401,304,000	419,764,000	439,076,000	3,016,968,000
10000	10100	10104-1	Provide short term TVET programs for unemplyed youth	-	-	-	-	-	-	-	-	-	-	-
10000	10100	10104-2		-	-	-	-	-	-	-	-	-	-	-
10000	10100	10104-3		-	-	-	-	-	-	-	-	-	-	-
10000	10100	10104-4		5,720,000,000	5,980,000,000	6,272,500,000	6,565,000,000	6,857,500,000	7,182,500,000	7,507,500,000	7,832,500,000	8,222,500,000	8,580,000,000	70,720,000,000
10000	10200	10201	Provide training to existing worker using various TVET models	84,000,000	120,000,000	180,000,000	240,000,000	300,000,000	360,000,000	420,000,000	480,000,000	600,000,000	720,000,000	3,504,000,000
10000	10200	10202	Provide training to migrant workers using various TVET models	50,000,000	50,000,000	200,000,000	400,000,000	600,000,000	800,000,000	1,000,000,000	1,200,000,000	1,600,000,000	2,000,000,000	7,900,000,000
10000	10200	10203	Provide training to returnee migrant workers	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	2,000,000,000
10000	10300	10301	Increase full board scholarship quota for needy people and for ensuring access (from the local levels without TVET schools)	135,280,000	120,080,000	104,880,000	89,680,000	66,880,000	66,880,000	66,880,000	66,880,000	66,880,000	66,880,000	851,200,000

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
10000	10300	10302	Increase full board scholarship quota for needy people and for ensuring social inclusion	85,120,000	127,680,000	170,240,000	170,240,000	170,240,000	170,240,000	170,240,000	170,240,000	170,240,000	170,240,000	1,574,720,000
10000	10300	10303-1	Increase classified scholarship (Lakshit barga chattrabriti provides tuition fee free education) scheme	-	-	-	-	-	-	-	-	-	-	-
10000	10300	10303-2		-	-	-	-	-	-	-	-	-	-	-
10000	10300	10304	Conduct classified scholarship entrance exam in the same centre where general entrance exam is held	-	-	-	-	-	-	-	-	-	-	-
10000	10400	10401	Prepare sector education brief (Feasibility study, projection, structure)	-	-	25,000,000	25,000,000	47,500,000	-	-	-	-	-	97,500,000
10000	10400	10402-1	Expand number of school	-	-	-	-	-	-	-	-	-	-	-
10000	10400	10402-2		3,000,000	3,000,000	3,000,000	3,000,000	47,000,000	51,000,000	88,000,000	51,000,000	21,000,000	21,000,000	291,000,000
10000	10400	10402-3		1,150,000	700,000	700,000	700,000	700,000	700,000	5,200,000	3,950,000	11,250,000	11,800,000	36,850,000
10000	10400	10403	Establish Schools for Person with Disability (0.13%)	1,500,000	1,000,000	1,000,000	1,500,000	1,000,000	1,500,000	2,000,000	2,000,000	2,500,000	2,500,000	16,500,000
10000	10500	10501	Diversify horizontal and vertical expansion of TVET programs including on green technology/ energy and jobs	-	-	9,000,000	216,249,600	215,684,800	697,344,640	718,775,520	751,818,240	786,648,000	822,844,320	4,218,365,120
10000	10500	10502	Introduce Preparatory TVET in Grades 6 to 8	-	-	1,500,000	-	-	-	-	-	-	-	1,500,000
10000	10500	10503	Prepare sector education brief (Feasibility study, projection, structure) for L5 and above	-	15,000,000	47,500,000	-	-	-	-	-	-	-	62,500,000
10000	10500	10504	Increase sectors of economy to offer TVET programs - long and short term programs by also keeping focus on green technology/ energy and jobs	-	-	-	-	-	-	-	-	-	-	-

Obj.	Strategy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
10000	10600	10601-1	Make all course curriculum modular, competency and credit based	-	-	-	-	-	-	-	-	-	-	-
10000	10600	10601-2		-	-	-	-	-	-	-	-	-	-	-
10000	10600	10602	Open higher level TVET qualification through NVQS based multi entry and exit education structure	-	-	-	-	-	-	-	-	-	-	-
10000	10700	10701-1	Establish separate hostel for girls, boys and disability for needy	58,039,680	58,039,680	498,619,400	942,253,840	1,388,943,000	76,368,000	76,368,000	76,368,000	76,368,000	76,368,000	3,327,735,600
10000	10700	10701-2		-	-	-	-	-	-	-	-	-	-	-
10000	10700	10701-3		-	-	-	-	-	-	-	-	-	-	-
10000	10700	10702	Develop/refurbish the current infrastructure to ensure access of LWD to instructional learning environment (ILE)	-	7,004,800,000	10,507,200,000	14,009,600,000	17,512,000,000	-	-	-	-	-	49,033,600,000
10000	10800	10801-1	Introduce/scale up multi shift learning opportunity	-	-	-	-	-	-	-	-	-	-	-
10000	10800	10801-2		-	-	-	-	-	-	-	-	-	-	-
			Sub total-Objective No. 1	28,851,422,910	37,225,502,330	46,420,525,560	52,486,338,310	58,525,781,320	42,428,198,880	44,586,420,680	46,746,447,940	49,321,016,950	51,964,543,560	458,556,198,440
20000	20100	20101	Operationalise TVET accreditation body as a wing of National Quality Assurance Authority (NQAA) (conversion of current CTEVT)	800,000	-	-	-	-	-	-	-	-	-	800,000
20000	20100	20102	Accreditate TVET schools	24,300,000	48,900,000	49,200,000	42,030,000	42,705,000	72,675,000	79,275,000	138,840,000	153,960,000	212,400,000	864,285,000
20000	20100	20103	Operationalise instructors accreditation/licensing system	29,034,000	890,000	390,000	390,000	5,823,000	780,000	3,432,000	3,900,000	4,914,000	5,187,000	54,740,000
20000	20200	20201	Operationalize long term TVET sector plan for instructors preparation/development	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,000,000
20000	20200	20202	Hire instructors as per approved organogram	33,930,000	11,700,000	11,700,000	11,700,000	174,690,000	23,400,000	102,960,000	117,000,000	147,420,000	155,610,000	790,110,000



Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total	
				80	81	82	83	84	85	86	87	88	89		
20000	20300	20301-1	Put instructors preparation plan in place	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,000,000
20000	20300	20301-2		-	-	750,000	-	-	-	-	-	-	-	-	750,000
20000	20300	20302	Ensure instructional training to working instructors including ICT based learning management system (LMS)	95,418,300	362,737,000	725,474,000	9,490,000	141,693,000	18,980,000	83,512,000	94,900,000	119,574,000	126,217,000		1,777,995,300
20000	20300	20303	Increase occupational skills upgradation training to instructors (including various models such as apprenticeship and enterprise development of TVET)	223,720,000	292,030,000	478,050,000	13,000,000	194,100,000	26,000,000	114,400,000	130,000,000	163,800,000	172,900,000		1,808,000,000
20000	20300	20304	Provide training to management/ administrative staff	38,180,000	38,686,000	39,192,000	39,698,000	47,334,000	24,196,000	26,450,000	29,026,000	32,246,000	35,650,000		350,658,000
20000	20300	20305	Provide training to MoEST and province, district and local level personnel	-	2,300,000	2,300,000	1,150,000	-	-	-	-	-	-	-	5,750,000
20000	20300	20306	Provide higher degree educational opportunity for underqualified instructors only	-	74,400,000	74,400,000	74,400,000	74,400,000	148,800,000	74,400,000	74,400,000	74,400,000	74,400,000	74,400,000	744,000,000
20000	20400	20401-1	Reduce instructors' turnover	-	-	-	-	-	-	-	-	-	-	-	-
20000	20400	20401-2		-	-	-	-	-	-	-	-	-	-	-	-
20000	20400	20401-3		-	-	-	-	-	-	-	-	-	-	-	-
20000	20400	20402-1	Introduce institute organogram with provision of permanent instructors	-	-	-	-	-	-	-	-	-	-	-	-
20000	20400	20402-2		-	-	-	-	-	-	-	-	-	-	-	-
20000	20400	20403	Ensure schools have all instructors as per the approved organogram	-	-	-	-	-	-	-	-	-	-	-	-

Obj.	Strategy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)									Total		
				80	81	82	83	84	85	86	87	88		89	
20000	20400	20404	Establish school fund to engage instructor and student in production activities (Including earning from consultancy services by teachers and students after providing them with approved incentives/share)	500,000	-	-	-	-	-	-	-	-	-	-	500,000
20000	20400	20405	Reduce share of part time instructors	-	-	-	-	-	-	-	-	-	-	-	-
20000	20400	20406	Mobilized expert worker/ successful entrepreneurs from world of work to deliver lectures/ exchange session at school level	-	-	-	-	-	-	-	-	-	-	-	-
20000	20500	20501-1	Make work based learning /OJT mandatory in all TVET programs	-	-	-	-	-	-	-	-	-	-	-	-
20000	20500	20501-2		-	-	-	-	-	-	-	-	-	-	-	-
20000	20500	20501-3		-	-	-	-	-	-	-	-	-	-	-	-
20000	20500	20502.1	Establish effective collaboration between TVET system and BIAs.	500,000	-	-	-	-	500,000	-	-	-	-	-	1,000,000
20000	20500	20502.2	Establish effective collaboration between TVET system and BIAs.	73,993,000	86,174,000	98,355,000	134,496,000	136,656,000	139,536,000	152,208,000	166,608,000	184,752,000	203,904,000	1,376,682,000	
20000	20600	20601-1	Operationalize NVQS implementation manuals for aligning learning resources with NVQF level descriptors (Covered by research, standard/curriculum development, teachers' training and development, management etc.)	3,700,000	3,700,000	3,700,000	3,700,000	3,700,000	3,700,000	700,000	700,000	700,000	700,000	700,000	25,000,000
20000	20600	20601-2		-	-	-	-	-	-	-	-	-	-	-	-
20000	20600	20602-1	Ensure learning resources (standards/curricula) NVQF level descriptors based	-	-	-	-	-	-	-	-	-	-	-	-

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total	
				80	81	82	83	84	85	86	87	88	89		
20000	20600	20602-2		-	-	-	-	-	-	-	-	-	-	-	-
20000	20600	20603	Reform standards for implementation of NVQS	-	-	-	-	-	-	-	-	-	-	-	-
20000	20600	20604	Reform curricula for implementation of NVQS and also facilitating of multi-exit/ entry provision for facilitating 'self-financed learning' and offering seamless academic and self/employment career path	-	-	-	-	-	-	-	-	-	-	-	-
20000	20600	20605	Ensure bridging inputs for entrance weak SEE graduates.	-	-	-	-	-	-	-	-	-	-	-	-
20000	20600	20606	Customise curricula to include specific enterprise development competence with individuals enterprise development projects	-	-	-	-	-	-	-	-	-	-	-	-
20000	20600	20607	Review weight of science and mathematics in curricula to ensure NVQF Level descriptor alignment	-	-	-	-	-	-	-	-	-	-	-	-
20000	20700	20701-1.1	Increase the share of schools/ institutes with more than 75% workable machine and equipment	-	-	9,660,000,000	10,180,000,000	-	-	-	-	-	-	-	19,840,000,000
20000	20700	20701-1.2	Increase the share of schools/ institutes with more than 75% workable machine and equipment	659,079,000	689,391,000	721,107,000	754,281,000	788,976,000	825,264,000	863,226,000	902,934,000	944,469,000	987,921,000	8,136,648,000	
20000	20700	20701-2		-	-	-	-	-	-	-	-	-	-	-	-
20000	20800	20801	Enhance ICT and e-learning system for distance/virtual learning (collaboration with expert teacher not available in any specific school/ province)	-	65,080,000	163,700,000	164,700,000	166,200,000	1,009,200,000	354,000,000	374,000,000	399,200,000	425,800,000	3,121,880,000	

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
200 00	20900	20901	Merge schools with less than the target ratio	-	-	-	-	-	-	-	-	-	-	-
200 00	20900	20902	Maintain teacher- student ratio	-	-	-	-	-	-	-	-	-	-	-
200 00	20900	20903	Increase cycle completion rate (for students who complete specific qualification of study continuously, semester 1 to 4)	-	-	-	-	-	-	-	-	-	-	-
200 00	20900	20904	Increase survival rate (within additional 3 years time) (for students who complete specific qualification of study continuously, semester 1 to 4)	-	-	-	-	-	-	-	-	-	-	-
200 00	20900	20905	Increase promotion rate to Grade 12 (diploma level)	-	-	-	-	-	-	-	-	-	-	-
200 00	21000	21001- 1	Operationalize technical backstopping (Monitoring) system for Provincial and Local level	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	35,000,000
200 00	21000	21001- 2		7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	70,000,000
200 00	21100	21101	Implement module/chapters/t asks based competence assessment led formative assessment for measuring learning outcomes	7,323,100	7,659,900	8,012,300	8,380,900	8,766,400	9,169,600	9,591,400	10,032,600	10,494,100	10,976,900	90,407,200
200 00	21100	21102	Establish practice of Instructors' evaluation by students	-	-	-	-	-	-	-	-	-	-	-
200 00	21100	21103- 1	Institutionalise practical based assessment (final examination) system	-	-	-	-	-	-	-	-	-	-	-
200 00	21100	21103- 2		29,292,400	30,639,600	32,049,200	33,523,600	35,065,600	36,678,400	38,365,600	40,130,400	41,976,400	43,907,600	361,628,800
200 00	21200	21201- 1	Institutionalize Office of Controller of Examination (OCEs) capacity to swiftly facilitate examination and ensuring timely	-	-	-	-	-	-	-	-	-	-	-

Obj.	Strategy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
			certification (not more than two months)											
20000	21200	21201-2		-	-	-	-	-	-	-	-	-	-	-
20000	21200	21202	Restructure CTEVT OCEs examination/assessment system with purpose to make it provinces connected ICT based system conduction/facilitation and certification	4,000,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	17,500,000
20000	21200	21203	Reduce the duration between final examination and certification	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	168,000,000	1,680,000,000
20000	21200	21204	Digitalize outcomes of both formative/internal assessment and final assessment for making quick and swift (real time)	-	-	-	-	-	-	-	-	-	-	-
20000	21300	21301	Establish/upgrade accredited skill test centres	-	450,000	500,000	500,000	500,000	500,000	500,000	-	-	-	2,950,000
			Sub total-Objective No. 2	1,403,269,800	1,895,737,500	12,249,879,500	11,652,439,500	2,001,609,000	2,520,379,000	2,084,020,000	2,263,471,000	2,458,905,500	2,636,573,500	41,166,284,300
30000	30100	30101-1	Increase number of graduates in long term (pre-Diploma, Diploma and advance diploma) and short term programs	-	-	-	-	-	-	-	-	-	-	-
30000	30100	30101-2		-	-	-	-	-	-	-	-	-	-	-
30000	30200	30201-1	Reform standards and curricula based on NVQF level descriptors	-	18,000,000	57,200,000	67,600,000	42,600,000	31,950,000	-	-	-	-	217,350,000
30000	30200	30201-2		-	-	-	-	-	-	-	-	-	-	-
30000	30200	30201-3		-	-	-	-	-	-	-	-	-	-	-
30000	30200	30201-4		-	63,000,000	136,000,000	220,000,000	240,000,000	202,500,000	240,000,000	-	-	-	1,101,500,000
30000	30200	30201-5		-	-	-	-	-	-	-	-	-	-	-
30000	30200	30201-6		-	-	-	-	-	-	-	-	-	-	-

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
30000	30200	30201-7		-	21,600,000	54,000,000	21,600,000	-	-	-	-	-	-	97,200,000
30000	30300	30301	Publish TVET sector annual report annually	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	9,000,000
30000	30300	30302	Continue publication of TVET journals	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	30,000,000
30000	30400	30401	Enhance employment rate of the graduates	-	-	-	-	-	-	-	-	-	-	-
30000	30400	30402	Institutionalise NVQF level descriptor based ILE resources (standards and curricula) preparation across the sector	-	-	-	-	-	-	-	-	-	-	-
30000	30500	30501-1	Ensure all TVET bodies have at least 50% members (outside Chair) are BIA representatives	-	-	-	-	-	-	-	-	-	-	-
30000	30500	30501-2		-	-	-	-	-	-	-	-	-	-	-
30000	30500	30501-3		-	-	-	-	-	-	-	-	-	-	-
30000	30500	30501-4		-	-	-	-	-	-	-	-	-	-	-
30000	30500	30502	Ensure all heads of BIAs are by default members of relevance TVET bodies (CTEVT Assembly, council etc.)	-	-	-	-	-	-	-	-	-	-	-
30000	30500	30503-1	Ensure TVET schools have 50% members from BIAs	-	-	-	-	-	-	-	-	-	-	-
30000	30500	30503-2		-	-	-	-	-	-	-	-	-	-	-
30000	30500	30504	Conduct study on system for incentivising business and industry to encourage productive partnership	-	-	-	-	-	-	-	-	-	-	-
30000	30600	30601	Establish SSCs through legislative instruments by defining their roles, responsibilities and incentives	-	-	-	-	-	-	-	-	-	-	-
30000	30600	30602	Form sector skill councils (SSCs)	-	11,500,000	23,000,000	34,500,000	46,000,000	46,000,000	46,000,000	46,000,000	46,000,000	46,000,000	345,000,000

Obj.	Strategy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)									Total	
				80	81	82	83	84	85	86	87	88		89
			Sub total-Objective No. 3	3,900,000	118,000,000	274,100,000	347,600,000	332,500,000	284,350,000	289,900,000	49,900,000	49,900,000	49,900,000	1,800,050,000
40000	40100	40101	Revise/put NVQS implementation provision in current/new TVET Act and other relevant TVET legislative instruments	-	-	-	-	-	-	-	-	-	-	-
40000	40100	40102	Ensure recognition of all TVET Qualification as equivalent to General education Qualification	-	-	-	-	-	-	-	-	-	-	-
40000	40100	40103	Revise the current NVQF to include technical education to term it as 'National TVE Qualification Framework'	-	-	-	-	-	-	-	-	-	-	-
40000	40100	40104	Revise the current NVQF Levels from L1 to L8 to clarify level 5 as advance Diploma	-	-	-	-	-	-	-	-	-	-	-
40000	40100	40105-1	Introduce qualifications for Advance Diploma and Bachelors qualification level	-	-	-	-	-	-	-	-	-	-	-
40000	40100	40105-2		-	-	-	-	-	-	-	-	-	-	-
40000	40100	40106	Establish NVQS Steering Committee (NSC) (Annex 15) including membership from VC's of universities in the convenorship of NQAA (next form major role of CTEVT) for ensuring recognition of TVET qualifications and employment through TVET Act for NVQS implementation facilitation	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	3,000,000

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total	
				80	81	82	83	84	85	86	87	88	89		
400 00	40100	40107	Establish NVQS Management Committee (NMC) (Annex 16) including membership from Deans of universities in the convenorship of NQAA (next form major role of CTEVT) for ensuring recognition of TVET qualifications and employment through TVET Act for NVQS implementation facilitation	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	4,000,000
400 00	40100	40108	Prepare NVQS implementation manuals	-	1,000,000	1,000,000	1,000,000	-	-	-	-	-	-	-	3,000,000
400 00	40200	40201	Enhance the preparatory TVET at the Grades 6,7, and 8	-	-	-	-	-	-	-	-	-	-	-	-
400 00	40200	40202	Manage bridging system to facilitate movement from TVET to General Education and Vice versa at relevant NVQ Levels	-	-	-	-	-	-	-	-	-	-	-	-
400 00	40300	40301	Convert existing Technical Stream as Secondary qualification (from 12.5 yrs. to 12 yrs.' education)	-	-	-	-	-	-	-	-	-	-	-	-
400 00	40300	40302	Reduce duration of 3 yrs. Diploma program into 2 yrs. Diploma program	-	-	-	-	-	-	-	-	-	-	-	-
400 00	40300	40303	Convert existing Pre-diploma into Grade 9-10 qualification level (using modular and credit based)	-	-	-	-	-	-	-	-	-	-	-	-
400 00	40300	40304	Ensure credit value of erstwhile pre-diploma	-	-	-	-	-	-	-	-	-	-	-	-
400 00	40300	40305- 1	Resolve recognition issue of TVET qualifications from Public Service Commission and Universities	-	-	-	-	-	-	-	-	-	-	-	-



Obj.	Strategy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
40000	40300	40305-2		-	-	-	-	-	-	-	-	-	-	-
40000	40300	40306	Align existing Skills level 1 to 4 with NVQS	-	-	-	-	-	-	-	-	-	-	-
40000	40400	40401	Increase number of annual skills testing graduates	375,760,000	392,840,000	412,055,000	431,270,000	450,485,000	471,835,000	493,185,000	514,535,000	540,155,000	563,640,000	4,645,760,000
40000	40400	40402	Increase number of Recognition of Prior Learning (RPL) graduates	67,722,200	74,191,250	81,369,120	95,989,600	107,211,160	119,948,570	134,423,870	150,880,450	171,675,350	193,401,110	1,196,812,680
40000	40400	40403	Align NVQF with relevant international and South Asia Regional Qualification Frameworks (SARQF) to facilitate workforce mobility across the SA borders	-	-	-	-	-	-	-	-	-	-	-
			Sub total-Objective No. 4	444,182,200	468,731,250	495,124,120	528,959,600	558,396,160	592,483,570	628,308,870	666,115,450	712,530,350	757,741,110	5,852,572,680
50000	50100	50101	Prepare HRM Plan for federal level TVET system (CTEVT, CEHRD, CDC, NEB and others)	-	4,000,000	-	-	-	-	-	-	-	-	4,000,000
50000	50100	50102	Develop HR capacities of TVET personnel at federal levels (bureaucrats and academics, BIAs) following the HRM plan	-	-	-	-	-	-	-	-	-	-	-
50000	50100	50103	Provide incentive/allowance head-teacher, coordinator, account personnel of TVET institute	1,000,000	1,000,000	1,000,000	-	-	-	-	-	-	-	3,000,000
50000	50100	50104	Operationalize Federal/Provincial/Local level/school level TVET MIS (TMIS), financial MIS (FMIS) and Employment MIS (EmMIS)	-	-	-	-	-	-	-	-	-	-	-
50000	50200	50201	Establish Learner's support system (career guidance and counselling and employment facilitation) in each school in place	291,600,000	293,400,000	295,200,000	168,120,000	170,820,000	174,420,000	190,260,000	208,260,000	230,940,000	254,880,000	2,277,900,000

Obj.	Strategy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
50000	50200	50202	Involve School executive committee (SEC) in decision making process.	-	-	-	-	-	-	-	-	-	-	-
50000	50200	50203	Establish student support unit (SSU)	-	-	-	-	-	-	-	-	-	-	-
50000	50300	50301	Prepare HRM plan for institute /school level	-	900,000	3,900,000	3,900,000	5,400,000	6,900,000	26,400,000	30,000,000	37,800,000	39,900,000	155,100,000
50000	50300	50302-1	Provide School Management training to Head Teacher/Principal	-	-	-	-	-	-	-	-	-	-	-
50000	50300	50302-2		-	-	-	-	-	-	-	-	-	-	-
50000	50300	50303-1	Maintain IT based tracer study system at school level annually	48,600,000	48,900,000	49,200,000	28,020,000	28,470,000	29,070,000	31,710,000	34,710,000	38,490,000	42,480,000	379,650,000
50000	50300	50303-2		500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,000,000
50000	50400	50401	Provide sufficient budget to ensure quality ILE at school level	-	-	-	-	-	-	-	-	-	-	-
50000	50500	50501	Establish School Fund for enhancing school income with purpose to benefit students, instructors and school	162,000,000	164,500,000	166,000,000	96,000,000	99,500,000	103,000,000	132,000,000	145,500,000	166,500,000	142,000,000	1,377,000,000
50000	50500	50502	Establish production/ consultancy unit structure in schools with market linkage (through outlets)	-	-	-	-	-	-	-	-	-	-	-
50000	50600	50601	Introduce partnership scheme with BIAs for some financial incentives to the OJT learners	219,693,000	229,797,000	240,369,000	251,427,000	262,992,000	275,088,000	287,742,000	300,978,000	314,823,000	329,307,000	2,712,216,000
50000	50700	50701	Conduct Federal level exchange meetings/seminars on TVET regularly	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,000,000
50000	50700	50702-1	Conduct province and local level exchange meetings/seminars on TVET regularly	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	14,000,000
50000	50700	50702-2		-	21,300,000	21,300,000	21,300,000	21,300,000	21,300,000	21,300,000	21,300,000	21,300,000	21,300,000	191,700,000
50000	50700	50702-3		81,000,000	81,500,000	82,000,000	46,700,000	47,450,000	48,450,000	52,850,000	57,850,000	64,150,000	70,800,000	632,750,000

Obj.	Strategy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
50000	50800	50801-1	Improve NSCO aligning with NVQF level descriptors and occupations in the existing/upcoming industries/economic sectors	-	-	-	-	-	-	-	-	-	-	-
50000	50800	50801-2.1		-	8,000,000	-	-	-	-	-	-	-	-	8,000,000
50000	50800	50801-2.2		961,909,000	1,120,262,000	1,278,615,000	1,748,448,000	1,776,528,000	1,813,968,000	1,978,704,000	2,165,904,000	2,401,776,000	2,650,752,000	17,896,866,000
50000	50800	50802-1	Establish system, in collaboration with BIAs, more specifically, with SSCs for forecasting workforce demand as per NVQF aligned NSCO	-	-	1,500,000	-	-	-	-	1,500,000	-	-	3,000,000
50000	50800	50802-2		-	-	-	-	-	-	-	-	-	-	-
50000	50800	50803	Partner with CBS to incorporate NVQF based occupational-level data in National Labour Force Survey (NLFS)	-	-	-	-	-	-	-	-	-	-	-
50000	50800	50804	Institutionalize coordination among different levels of Governments on planning of specific research and during research design and sharing the findings	-	-	-	-	-	-	-	-	-	-	-
50000	50800	50805	Update/maintain the findings of all levels of studies in TVET knowledge management system (TMIS/EmMIS)	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,000,000
50000	50800	50806	Develop NSCO based needs assessment survey as prerequisite for offering qualifications in other sectors	-	-	3,000,000	7,500,000	-	-	-	-	-	-	10,500,000
50000	50800	50807	Conduct impact studies at national level	-	-	4,000,000	-	-	4,000,000	-	-	4,000,000	-	12,000,000
50000	50800	50808	Continue publication of comprehensive	-	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,500,000

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total	
				80	81	82	83	84	85	86	87	88	89		
			TVET progress report												
50000	50900	50901	Operationalize Communication strategy at federal, provincial and institute level	35,750,000	34,950,000	35,150,000	21,030,000	21,330,000	21,730,000	23,490,000	25,490,000	28,010,000	30,670,000	277,600,000	
50000	51000	51001-1	Ensure toilets for both gender	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51001-2		-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51001-3		-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51002	Manage first aid facilities	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51003	Manage Canteen facilities	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51004	Put student grievance handling unit	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51005	Establish GESI Unit	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51006	Ensure school with head teacher with school management training	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51007	Allocate separate coordinate for program	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51008	Give preference to female while making new hire to encourage gender equity	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51009	Give preference to people with disability while making new hire to encourage social inclusion	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51010	Ensure active SMC in each school	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51011	Manage electricity in schools	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51012	Organize skill competition at province level	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51013	Organize Job fare at local level	-	-	-	-	-	-	-	-	-	-	-	
50000	51000	51014	Manage library in schools	-	-	-	-	-	-	-	-	-	-	-	
			Sub total-Objective No. 5	1,804,452,000	2,011,909,000	2,184,634,000	2,395,845,000	2,437,190,000	2,501,326,000	2,747,856,000	2,994,892,000	3,311,189,000	3,585,489,000	25,974,782,000	
60000	60100	60101-1	Formulate TVET principles guided TVET Act and Rule (in context of federalization)	-	-	-	-	-	-	-	-	-	-	-	

Obj.	Strategy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
60000	60100	60101-2		-	-	-	-	-	-	-	-	-	-	-
60000	60100	60101-3		-	-	-	-	-	-	-	-	-	-	-
60000	60100	60101-3		-	-	-	-	-	-	-	-	-	-	-
60000	60100	60102-1	Convert CTEVT into National Quality Assurance Authority (NQAA) with main responsibility on regulatory/quality assurance (research, ILE resources development including chief master instructors' preparation, instructors' accreditation, and assessments (academic and physical) and certification) functions	-	-	-	-	-	-	-	-	-	-	-
60000	60100	60102-2		-	-	-	-	-	-	-	-	-	-	-
60000	60100	60102-3		-	-	-	-	-	-	-	-	-	-	-
60000	60100	60102-4		-	-	-	-	-	-	-	-	-	-	-
60000	60100	60103	Align NVQF with South Asia Regional Qualification Frameworks (SARQF) and relevant international frameworks to facilitate workforce mobility across the SA borders	-	-	-	-	-	-	-	-	-	-	-
60000	60100	60104	Establish autonomous Provincial TVET Authorities (TVETAs) at province level under Provincial Ministry of Social Development/ Ministry of Education	-	-	-	-	-	-	-	-	-	-	-
60000	60200	60201	Assign regulatory responsibility/ quality assurance responsibility to CTEVT	-	-	-	-	-	-	-	-	-	-	-

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
				80	81	82	83	84	85	86	87	88	89	
60000	60200	60202-1	Assign responsibility of COEs/Model Schools to CTEVT	-	-	-	-	-	-	-	-	-	-	-
60000	60200	60202-2		-	-	-	-	-	-	-	-	-	-	-
60000	60200	60202-3		-	-	-	-	-	-	-	-	-	-	-
60000	60300	60301	Introduce stand-alone and TVET principles guided TVET Policy	-	-	-	-	-	-	-	-	-	-	-
60000	60300	60302	Facilitate preparation of stand-alone and TVET principles guided Provincial TVET Policy	-	-	-	-	-	-	-	-	-	-	-
60000	60400	60401-1	Ensure coordination mechanism in the spirit of Federal and Provincial TVET Acts	-	-	-	-	-	-	-	-	-	-	-
60000	60400	60401-2		-	-	-	-	-	-	-	-	-	-	-
60000	60400	60401-3		-	-	-	-	-	-	-	-	-	-	-
60000	60500	60501	SWAp Approach of financing	-	-	-	-	-	-	-	-	-	-	-
60000	60500	60502	Affordable fee structure (Constituent, Partnership, TECS and Private)	-	300,000	-	-	-	300,000	-	-	-	300,000	900,000
60000	60500	60503	Make TVET up to diploma level free of costs (Publicly funded programs)	-	-	-	-	-	-	-	-	-	-	-
60000	60500	60504	Access to finance (soft loan)	-	-	-	-	-	-	-	-	-	-	-
60000	60500	60505	Facilities soft loan to new entrepreneurs	-	-	-	-	-	-	-	-	-	-	-
60000	60500	60506	Integration in Government Accounting and reporting system	-	-	-	-	-	-	-	-	-	-	-
60000	60500	60507	Introduce cost sharing system at three level of government	-	-	-	-	-	-	-	-	-	-	-
60000	60600	60601	Establish technical backstopping mechanism through a Joint Team of Federal, provincial and local level TVET authorities	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	36,000,000
			Sub total-Objective No. 6	3,600,000	3,900,000	3,600,000	3,600,000	3,600,000	3,900,000	3,600,000	3,600,000	3,600,000	3,900,000	36,900,000

Obj.	Strate gy	CODE	Objectives, strategies and interventions	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)									Total	
				80	81	82	83	84	85	86	87	88		89
			Grand Total	32,510,826,990	41,723,780,161	61,627,863,262	67,414,782,493	63,859,076,564	48,330,637,535	50,340,105,636	52,724,426,477	55,857,141,888	58,998,147,259	533,386,787,420

### Annex 11c: Financing distribution across public and private stakeholders (Scenario B) in NRS.

Sector	cost center	Timeline (short run: 80-81; medium: up to 82-84; long: up to 88)										Total
		80	81	82	83	84	85	86	87	88	89	
Public	Federal Level	2,231,547,647	2,534,401,750	12,650,128,685	13,363,671,806	3,344,994,726	3,947,548,777	4,061,664,405	4,011,706,661	4,191,594,079	4,431,348,487	54,768,607,022
	Provincial Level	4,643,212,980	7,303,560,570	9,593,443,971	10,081,599,133	11,922,709,086	6,428,123,457	6,919,157,301	7,338,369,199	7,963,215,067	8,531,185,967	80,724,576,730
	Local Level	10,362,650,073	15,810,390,705	20,264,000,906	23,787,683,280	27,334,290,701	15,174,288,250	15,826,138,376	16,674,934,753	17,735,022,576	18,785,890,920	181,755,290,539
	Subtotal-Public	17,237,410,700	25,648,353,024	42,507,573,562	47,232,954,219	42,601,994,513	25,549,960,484	26,806,960,082	28,025,010,613	29,889,831,721	31,748,425,374	317,248,474,291
Private	Training providers	1,076,529,220	1,182,947,990	1,290,323,240	1,428,995,150	1,458,607,600	1,495,046,560	1,646,796,260	1,795,353,220	1,985,232,190	2,153,372,590	15,513,204,020
	Parents Contribution	14,196,886,990	14,880,979,067	17,806,966,378	18,718,333,041	19,752,474,367	21,239,630,406	21,840,349,208	22,858,062,557	23,936,077,890	25,050,349,206	200,280,109,109
	Business & Industry	-	11,500,000	23,000,000	34,500,000	46,000,000	46,000,000	46,000,000	46,000,000	46,000,000	46,000,000	345,000,000
	Subtotal-Private	15,273,416,210	16,075,427,057	19,120,289,618	20,181,828,191	21,257,081,967	22,780,676,966	23,533,145,468	24,699,415,777	25,967,310,800	27,249,721,796	216,138,313,129
	Grand Total	32,510,826,910	41,723,780,800	61,627,863,180	67,414,782,410	63,859,076,480	48,330,637,450	50,340,105,500	52,724,426,390	55,857,141,800	58,998,147,170	533,386,787,420

### Annex 11d: Cost summary (Scenario B) in NRs. arab

Sector	Cost Center	Total	Short run (80-81)	Medium run (82-85)	Long run (86-89)	Proportion of total	Annual Average
Public	Federal Level	54.77	4.77	29.36	20.64	10.27	5.48
	Provincial Level	80.72	11.95	31.60	37.18	15.13	8.07
	Local Level	181.76	26.17	71.39	84.20	34.08	18.18
	Subtotal-Public	317.25	42.89	132.35	142.02	59.48	31.73
Private	Training providers	15.51	2.26	4.18	9.08	2.91	1.55
	Fee/ Parents Contribution	200.28	29.08	56.28	114.92	37.55	20.03
	Business & Industry	0.35	0.01	0.10	0.23	0.07	0.04

Sector	Cost Center	Total	Short run (80-81)	Medium run (82-85)	Long run (86-89)	Proportion of total	Annual Average
	<b>Subtotal-Private</b>	216.14	31.35	60.56	124.23	40.52	21.61
	<b>Grand Total</b>	533.39	74.24	192.91	266.25	100.00	53.34



## Annex 12: Explanatory Notes on Major interventions made in TRSP

### I. Background and objectives

In the TVE Reform Strategic Plan (TRSP), pillarwise strategies and their interventions were developed based on the problems and issues identified by the TVE Sector Analyses Report (TVE SAR) 2022. Further explorations on this front were done during the stakeholders' consultation at Federal, Provincial and Local levels. These stakeholders included provincial parliamentarians, officials from ministries working in TVE, Business and Industry Associations (BIAs), school/ institutes instructors, principals, graduates and students, parents and media. Accordingly, recommendations/ interventions were collected/ proposed in the TRSP targeting employment first principles. However, as the interventions were presented in tabular form, making detail explanation was not possible in the TRSP document itself. Hence, this explanatory notes/ document is prepared to assist readers/ practitioners in understanding the TRSP interventions. In order to make the read comfortable, this document follows TRSP document pattern (Objectives, intervention codes and explanation).

### II. Major Assumptions made for the TRSP interventions

- I. The implementation can start from 2080 as many interventions do not need major preparations and do not need any legislative changes;
- II. Major reform – restructuring in curriculum and its structure, educational structure and qualifications and institutional – is expected to start from 2083. It essentially mean allowing three years' time for making preparations.
- III. Costs are estimated with assumption that all the required
- IV. As in general education in school level, the private sector schools are expected to continue to exist.

### III. Explanatory notes on interventions

#### 1. Access, Equity and Expansion

10101	<p>Provide access to market responsive TVE programs at local levels targeting inclusion (by also including full board scholarships to the students from local levels where it is not possible to open schools)</p> <ul style="list-style-type: none"><li>▪ Both long and short term training programs are expected to be offered after research in market demands. Although, it should not be difficult for short term programs, long term programs are also expected to follow this approach and the schools/ institutes offering these programs are expected to be given flexibility to make required changes.</li><li>▪ Number of Local level with TVE institutes will increase from 635 to 709. Out of 753 local levels, there will be no institutes in 44 palikas (as identified by the study)</li><li>▪ Access to learners from 44 palikas will be made available through full board scholarship - 44 palikas @10 persons = 440 per year (refer also Code: 10301)</li></ul>
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10102-1	<p>Provide long term TVE program</p> <ul style="list-style-type: none"> <li>▪ The large target calls for contribution of all institutions/ organizations to offer such programs. In other words, the current programs offered by CEHRD and CTEVT (which will move to provinces) could exist and continue. However, they must be accredited by NTQAA and use NTQAA prepared standards and curriculum.</li> <li>▪ Number of annual enrolment estimated to increase from 54,871 to 203,904 in long term program. (No. of annual enrollment (Estimated based on NLFS 2018/19 data)</li> <li>▪ Increase utilization of existing capacity for enrollment (65% in year 2080; 75% in year 2081; 85% in year 2082 (New concept: 2 year's pre-diploma; 2 year's diploma and 1 year's advance diploma with new market demanded programs); and Advance Diploma (L5) courses. The Advance Diploma courses are expected to introduce in year 2083 which mean the TVE system as 2 years for making preparations. The increase in enrollment is expected to be possible as the schools will be allowed to offer at least 3 programs in each institutes instead of one. However, the TRSP expects around 45% institutes will be merged. All schools with below 50% enrolment will be merged.</li> <li>▪ The number of programs will increase from 2543 to 4248 (each year increasing though decrease in number of institutes: after merge from 2083)</li> </ul>
10104-1	<p>Provide short term TVE programs for unemployed youth</p> <ul style="list-style-type: none"> <li>▪ The large target in short term training calls for contribution of all institutions/ organizations to offer such training. However, they must be accredited by NTQAA and use NTQAA prepared standards and curriculum. They could be relevant stakeholders (CTEVT Model Schools, MoLESS, MOICS, MoCTCA, MoALD, MoWCSC, MoHP, MoYS, MoLMCP, MoFE, PGs, LLs) will conduct short term training programs (Livelihood - 50%, Level 1 - 25% and Level 2 - 25% trainings)</li> <li>▪ Level 1 and Level 2 trainings will also be competency based modular, credit based as part of the long term program. They will have opportunity to further their qualifications.</li> </ul>
10302	<p>Increase full board scholarship quota for needy people and for ensuring social inclusion No. of full board scholarships for bipanna, females, laponmukh aadibashi, janjati, Dalit, people from remote areas, Differently able people, conflict affected 7 Provinces @ 80 persons = 560</p>
10402-1	<p>Expand number of school</p> <ul style="list-style-type: none"> <li>▪ The increase in number of school is assumed to be determined by the number of students expected to enroll in that particular year</li> <li>▪ The 3 COEs/ model schools are already process has already been started. Process will be initiated for the target mentioned CoEs/ model school in the year from 2080 to 2083.</li> <li>▪ At least 50% of schools in urban areas and 25% of schools in rural areas will introduce multi shift learning opportunities allowing more TVE opportunities from the same school.</li> <li>▪ Schools for Person with Disability is estimated to be 33 which is 2% of 1667. This proportion is taken from 2% population with disability.</li> </ul>
10405	<p>Establish Higher Education Fund for availing Loan for studies for Level 5 and above</p>

10501	<p>Level 5 and above could be expensive for all. Therefore, establishing Higher Education Fund with purpose to loan to deserving students is considered necessary. This facility could be used also by the students in Level 3 (Diploma level).</p> <p>Diversify horizontal and vertical expansion of TVE programs including on green technology/ energy and jobs</p> <ul style="list-style-type: none"> <li>▪ Vertical level to Diploma (considered to be at NVQ Level 4) exist but does not exist beyond it. Program will launch NVQ Level 5 in 2082 and in NVQ Level 6 in 2083.</li> <li>▪ Provision of horizontal expansion is limited mainly in engineering, agriculture and health sectors. This plan intends to offer vocational education in areas such as: banking, cooperatives, insurance, accounting, fashion design. Together with them, TVE system will, through sectoral feasibility studies, avail other areas of study as horizontal expansion. This is anticipated to take place starting 2081.</li> <li>▪ Detailed sector feasibility studies are proposed for identifying employment potential. This is a need because many labor market studies are done but not focused in the kind of levels, competency and number of workforce is researched linking with TVE qualifications.</li> </ul>
10601-1	<p>Make all course curriculum modular, competency and credit based starting from 2082</p> <ul style="list-style-type: none"> <li>▪ Modular and competency based curricula are expected to allow students to complete specific competency in a specific module. This could allow students to continue in or exit from specific educational program. When the curricula are credit based their exit and entry will be far easier.</li> <li>▪ Long term - 88 modular, competency, and credit based curricula</li> <li>▪ Short term - 271 modular, competency, and credit based curricula</li> <li>▪ These are examples as in response to the market demands, these numbers may vary.</li> <li>▪ Open higher level TVE qualification through NTQS based multi entry and exit education structure</li> </ul>

## 2. Quality and Efficiency of and in the TVE services

20101	<p>Operationalize TVE accreditation body as a wing of National Technical Quality Assurance Authority (NTQAA) (conversion of current CTEVT)</p> <ul style="list-style-type: none"> <li>▪ Following the demand that an agency cannot assume both implementing and quality assurance responsibility, NTQAA with quality assurance responsibility will be established. This agency is expected to be responsible for actions such as research, standards and curriculum development, accreditation, teacher preparation and licensing, assessment/ examination and certification, and recognition and equivalency. As CTEVT has gained experience in these critical areas and it takes long time to achieve them, it is sensible to convert the current CTEVT into NTQAA.</li> <li>▪ The NTQAA will be responsible for 2-3 CoEs/ model schools per province for demonstration purpose.</li> </ul>
20102	<p>Accreditate TVE schools</p> <p>In order to impart quality education through various technical schools, the institutes as well as programs need to be accredited by the authorized institutes. CTEVT has currently developed accreditation system and some piloting</p>

20103	<p>has also already started. NTQAA will absorb this system and accredit 50% institutes/ programs under/ affiliated with both CTEVT and CEHRD or any other relevant sectoral ministries at all levels. The accreditation system will be applicable also for short term program providers.</p> <p>Operationalize instructors accreditation/ licensing system</p> <ul style="list-style-type: none"> <li>▪ The technical teacher licensing system helps to ensure competent instructors/ teachers through in place. The technical teacher licensing system can be introduced based on competency and may be graded into three or four levels as decided by the concerned authority<sup>7</sup>. This also opens a career path, from level-1 to level-3/ level-4, and contributes to improving the social image and thereby help to attract competent persons to become technical teachers. This will be an excellent mechanism for distinguishing certified (trained) specialized teachers from non-certified (untrained) ones.</li> <li>▪ The implementation of the technical teacher licensing system also requires alignment with the national qualification framework; and for effective implementation of the framework technical teacher licensing system must be incorporated into law.</li> <li>▪ Teacher licensing could managed from Province level for all schools in its jurisdiction while NTQAA could do it through TITI for CoE/ model schools</li> </ul>
20306	<p>Provide higher degree educational opportunity for underqualified instructors only</p> <p>For Assistant Instructors, Diploma is the minimum requirement. After working for certain duration, they may be promoted as Instructors. Instructors with Diploma level are not eligible to teach for Diploma level. Hence, such instructors need to be given opportunity for higher degree education. The TVE system could avail such opportunity through study leaves and other feasible compensation systems.</p>
20404	<p>Establish school fund to engage instructor and student in production activities (Including earning from consultancy services by teachers and students after providing them with approved incentives/share)</p> <ul style="list-style-type: none"> <li>▪ One of the main reasons for instructor's turnover is due to temporary nature of job with insufficient remuneration/ limited income. If they are involved in school level production activities including consultancy services, their earning and competencies will increase. In such situation, they will be motivated and will enjoy working for longer duration.</li> <li>▪ This type of school fund to engage instructor and students in production activities increase their competency level and also provide them extra income.</li> </ul>
20501-1	<p>Make work-based learning /OJT mandatory in all TVE programs</p> <ul style="list-style-type: none"> <li>▪ The main objectives of the work-based learning/training or OJT is to strengthen their competencies for the job role. In the institutes, learners gained necessary theoretical information with some practical skills for the occupation. The tools and equipment in the institutes may be different than the actual workplace/ industry. In such a situation, OJT provides good learning opportunity for the learners with the new technology in the actual world of work.</li> </ul>

<sup>7</sup> R.Adhikari. 2022. *Technical Teachers licensing system. Kathmandu Post.*

20501-3	<ul style="list-style-type: none"> <li>▪ Such learning opportunity is envisaged mandatory for all, where applicable.</li> <li>▪ The duration for OJT needs to be defined by the subject experts based on the fulfillment to be carried out by learners as per NTQF level descriptors. As Pre-diploma, Diploma and higher levels of TVE all are suggested for multi exit and multi entry in the TRSP, provision of OJT need to be managed within the semester.</li> <li>▪ Coordination with BIAs and public organizations for OJT placement and support to students should be clearly mentioned in the OJT guidelines.</li> </ul>
	<p>short term TVE courses with OJT provision Introduce provision of OJT in all short term courses to increase competency in the occupation as recommended by the subject experts based on NTQF level descriptors.</p>
20502	<p>Establish effective collaboration between TVE system and BIAs. Involve BIAs in following activities<sup>8</sup></p> <p><b>a) Demand forecast</b></p> <ul style="list-style-type: none"> <li>▪ Projection of skilled workers, even if it is indicative, is very crucial to make TVE effective, but no such system at national level exists. A demand forecasting system should get top priority and be regularized at national level.</li> </ul> <p><b>b) Private sector involvement in selecting and prioritizing TVE programs</b></p> <ul style="list-style-type: none"> <li>▪ The involvement of BIAs in TVE is still largely on an individual level</li> <li>▪ The private sector is involved in developing Occupational Standards through Sector Skills Committees but their limitation is also noted for their engagement only in agriculture, hospitality and construction sectors. This calls for exploring other sectors which is possible through consolation and collaboration with BIAs. BIAs involvement in curriculum development is limited and much limited in policy formulation.</li> <li>▪ Formation of legislatively established Sector Skill Councils with major role to develop Occupational Standards and their involvement in the curriculum development will increase the involvement of business and industry and economic sectors role in selecting and prioritizing TVE programs.</li> </ul>
20602-1	<p>Ensure learning resources (standards/ curricula) NTQF level descriptors based</p> <ul style="list-style-type: none"> <li>▪ NSTB/CTEVT has been developing occupational standards focusing the graduate of short term training programs. They do not have occupational standard for Pre-diploma and Diploma graduates of the occupation.</li> <li>▪ For the operationalization of NTQF, competency standards for NVQ level 4, Level 5, Level 6 and so on, need to be developed. Based on the occupational standards, curriculum needs be developed for those levels.</li> </ul>
20604	<p>Reform curricula for implementation of NTQS and also facilitating of multi-exit/ entry provision for facilitating 'self-financed learning' and offering seamless academic and self/employment career path</p> <ul style="list-style-type: none"> <li>▪ In Pre-diploma (Grade 9 - 10) with 4 semester courses, learners may exit after completion of any semester. This exit will be facilitated by appropriately credited certificate for the module while keeping the option to return to continue education individual.</li> </ul>

<sup>8</sup> Sharma, T, Nakarmi, C, and Koirala, B. 2019. *Review of the Current Situation of Technical Vocational Education and Training in Nepal*. Kathmandu: [www.dakchyata-nepal.org](http://www.dakchyata-nepal.org)

	<ul style="list-style-type: none"> <li>▪ After completing all 4 semesters, Pre-diploma certificate of the occupation will be awarded as mentioned in the curricula.</li> <li>▪ Similarly, learners may exit after completion of any semester of Diploma Program. In this case, certificate for the module completed will be awarded.</li> <li>▪ The competencies covered by the learners for that semester will be mentioned in the certificates awarded to the learners.</li> <li>▪ This provision of multi-exit/ entry provision facilitate the learners to choose job for the completed modules and after earning can continue the learning.</li> <li>▪ If the learner want to continue his/her study, s/he can join the next semester at the time when institutes start that semester.</li> </ul>
20901	<p>Merge schools with enrollment less than the target ratio</p> <p>Each school is supposed to run at least 3 programs and if the number of enrollment is less than the target ratio (50%), schools will be merged.</p>
20903	<p>Increase cycle completion rate is defined as the rate calculated on the basis of students who completed the study in the duration specified in the curriculum. For instance, it is the number of graduates who completed semester 1 to 4 study in one go divided by the number of students in the class.</p> <p>With the provision of multi entry and multi exit, possibility of drop out without completing the semester will be reduced. If the learners discontinue without completing the semester, it will be considered as drop out.</p>
21101	<p>Implement module/chapters/tasks based competence assessment led formative assessment for measuring learning outcomes on regular basis.</p> <p>Problems and project based on modules/ chapters/ tasks will be used for formative assessment of competencies instead of only theory based assessment in each institute.</p>
21102	<p>Establish practice of Instructors' evaluation by students</p> <p>Instructors' evaluation by students can be considered as effort to maintain the quality instruction. It is based on the student's experience of instructors' classroom (theory and practical) performance. Instructors quality can be assessed in Likert scale (example of the firm is enclosed here with. As this is a sample, one can add instructor's trait on it as per the requirement of the institutes.</p>

Please trust us that completing this survey will not affect your course grade. Only the analysis of the evaluation will be shown to your instructors and not this survey sheets.

Name of the Instructor: .....

Please evaluate your instructor on a scale of 1 to 5 as shown below.

5	4	3	2	1	NA
Always	Often	Sometimes	Rarely	Never	"Not applicable" (I can't answer)

My Instructor	5	4	3	2	1	NA	Comments
1. Begins and ends our class on time.							
2. Is well prepared for class.							
3. Is organized and teaches clearly.							
4. Encourage students to ask questions and participate.							
5. Answers questions clearly.							
6. Knows the subject matter of this course.							
7. Shows interest in the subject matter that we are studying.							
8. Encourage me to think and explore new ideas.							
9. Treats all students respectfully.							
10. Responds to my work so I know how I'm doing and what I need to work on.							
11. Responds to me when I need help outside of class.							
12. Helps me meet the goals and learning objectives of the course.							

(source:<https://www.losmedanos.edu/accreditation/documents/CDR.1-12StudentEvaluationForm.pdf>)

21103-1

Institutionalize practical based assessment (final examination) system

- In technical and vocational education (TVE) subjects, student's competencies assessment should be done. For this, necessary theoretical as well as practical skills of learners need to be assessed.
- In CTEVT and CEHRD, theoretical examination is emphasized and implemented with coordination of District Administration Office, security personnel. Practical competences are not assessed often. In order to assess the practical skills, problems and project based on modules/ chapters need to be assigned for final examination. Team of assessors (at least one from industry and one from the school) can be used for summative assessment to ensure practical competency.

21202

Restructure CTEVT OCEs examination/ assessment system with purpose to make it provinces connected ICT based system conduction/facilitation and certification

In order to administer the test (entrance test, final tests and practical test) throughout the year, provide certificates to the successful candidates and keep complete records of individuals who have received certificates from CTEVT accredited programs:

- Structure of OCEs will be reviewed and restructured enabling it delivery its responsibilities on time. It will be made full house with the approved staff structure as mentioned in organogram/ structure.
- OCEs will delegate its examination authority at province level (through revision in relevant Byelaw) in that the examination activities (theory and practical) will be assessed at the province levels. Only the scores achieved will be shared with OCE on real-time basis.

21204	<p>Digitalize outcomes of both formative/internal assessment and final assessment for making quick and swift (real time)</p> <p>The main reasons for slow result publication is assessment (formative and final exam) marks entry and exam system. Generally, it takes almost a month to complete the exams of Diploma programs as first year, second year and third year exams planned at alternate days to allow them to appear for back paper. The collection of answer copies start after the completion of exam when the staffs return back from the exam centers. When staff from OCEs also mobilized for exam management, the coding of the answer papers and copy checking activities cannot be started.</p> <ul style="list-style-type: none"> <li>▪ The technical schools can enter the formative assessment marks by themselves in the software (real time) and the Province CTEVT office can enter the final exam marks (real time). This division of works will reduce the burden to OCEs staff and can be used for other activities of OCEs.</li> <li>▪ OECs staff shall not be deputed to manage the examination in exam centers (if involved, testing procedure can be started only after the exam ends -almost one month exam period)</li> <li>▪ Exam copies will be collected from the initial day of exam and the copy checking procedures can be started immediately.</li> </ul>
30201-1	<p>Reform standards and curricula based on NTQF level descriptors</p> <p>There is practice of developing standards for occupations in short term courses and no standards are developed for long term Pre-diploma and Diploma programs. However, it is necessary. Curricula for all TVE programs should be developed based on the standards. All (NVQ level 3 and above) TVE standard and curricula shall be developed based on the NTQF level descriptors to align it with the market demand. In order to develop standards and curricula based on NTQF level descriptors, experts from the industry should be involved under the lead role of Sector Skill Councils.</p> <p>Level 1 and 2 will also be guided by NTQF level descriptors but possibility of making them part of Level 3 will be ensured. All these will be decided by experts engaged in the standards and curriculum development process identified by Sector Skill councils.</p>
20301-2	<p>Revise instructors qualifications and recruitment process (written/practicum/aptitude test) to ensure qualified instructors/ teachers in place</p> <ul style="list-style-type: none"> <li>• Qualification: Required academic qualification plus at least 8 weeks long pedagogy with certification</li> <li>• Written examination pass</li> <li>• Practicum pass</li> <li>• Aptitude test pass</li> <li>• Convert all teaching position of TITI and P-TTC trainers to (professors/associate professor/assistant professors as appropriate) defining qualification so as to make the teachers/ instructors training facilities compatible to international fraternity which then will be lucrative too.</li> </ul>





	<p>beginning (research for demand collection for specific qualification, development of standards and curricula, teacher/instructors preparation and licensing, accreditation of programs and institutes, assessment and certification) need to be trusted and accepted by all stakeholders. One of the major needs for all these to achieve various universities need to be engaged in the NTQF processes.</p>
40102	<p>Ensure recognition of all TVE Qualification as equivalent to General education Qualification</p> <ul style="list-style-type: none"> <li>▪ The General Education (GE) system and the Technical and Vocational Education (TVE) system are considered as two major pillars of the education system in Nepal. The GE system has clear and defined pathways of progression and permeability opportunities whereas in most of the TVE programs, there is no progression opportunity, and these courses are like dead ends. On the other hand, TVE qualifications such as that earned from short term training, do not have academic equivalency - these programs are only for employment purposes<sup>9</sup>.</li> <li>▪ The National Vocational Qualifications Framework (NVQF) is an integral part of NQF. In the current NVQF, it has clearly shown that all TVE Qualifications as equivalent to General education Qualification. On top of that, it has also mentioned the recognition of skills acquired through any form of learning i.e. formal, informal and non-formal learning via Recognition of Prior Learning (RPL).</li> </ul>
40104	<p>Revise the current NTQF Levels from L1 to L8 to clarify level 5 as advance Diploma level</p> <p>In the current NTQF, NVQ level 4 is considered equivalent to technical certificate and NVQ level 5 as National Diploma. However in International scenario and even in South Asia region, there is NVQ level 5 as Advance Diploma. Hence it is suggested to revise the current NTQF levels L3 as technical certificate, NVQ level 4 as Diploma and NVQ level 5 as Advance diploma.</p>
40105-1	<p>Introduce qualifications for Advance Diploma and Bachelors qualification level</p> <ul style="list-style-type: none"> <li>▪ At least 19 Advance Diploma levels in Engineering, agriculture, health, and hospitality have such opportunity by the end of 2083.</li> <li>▪ At least 10 Bachelor levels in Engineering, agriculture, health, and hospitality have such opportunity by the end of 2085.</li> <li>▪ However, no mistakes is expected as, the TRSP has envisaged the process led by market research, economic sector studies that identifies demands for occupations with demands. In other words, the above proposals are envisaged for a decade's period but will be prioritized and decided by findings of such studies.</li> </ul>
40106	<p>Establish NTQS Steering Committee (NSC) (Annex 15) including membership from VC's of universities in the convenorship of NTQAA (next form major role of CTEVT) for ensuring recognition of TVE qualifications and employment through TVE Act for NTQS implementation facilitation</p> <p>Presently, diploma graduates of TVE can continue their qualification in general education in engineering, agriculture, hospitality and health sectors (some) in the same occupation. For TVE graduates to have easy access in general education, each and every stakeholders in the education system need to be well familiar with this NTQF and need to be guided by NSC including members from VC's of universities. TRSP envisages no issue with TVE qualifications/ certificates. Achieving it requires collaboration with universities. As this is working in other countries, there is no reason why not in Nepal. In other</p>

<sup>9</sup> Panthee, S. 2022. NTQF: A Tool For Deconstructing Social Stratification, Kathmandu: <https://myrepublica.nagariknetwork.com/>

40107	<p>words, there should be no reasons for persistent opinion on TVET qualifications as inferior compared to general education qualifications. Instead, it should be equal if not the vice-versa.</p> <p>Establish NTQS Management Committee (NMC) (Annex 16) including membership from Deans of universities in the convenorship of NTQAA (next form major role of CTEVT) for ensuring recognition of TVE qualifications and employment through TVE Act for NTQS implementation facilitation</p> <p>As mentioned above, the current TVE system suffers from two constraints:</p> <ol style="list-style-type: none"> <li>i) limited employment to the TVE graduates; and</li> <li>ii) lack of further TVE educational pathways after Diploma/ or Grade 12 completion (Figure 5.1). The Pre-Diploma graduate certificates do not carry any credit value requiring them invest another 3 years' study should they pursue Diploma level qualification.</li> </ol> <p>NMC as mentioned in Annex 20 will be in operation for facilitating NTQS implementation mainly focusing on its technical and management aspects.</p>
40108	<p>Prepare NTQS implementation manuals</p> <p>A complete set of NTQS implementation manuals are needed as guide for different processes of NTQS and its implementation. Till now 10 different manuals and guidelines are prepared and 16 NTQS implementation manuals are needed<sup>10</sup>. However, they are presumably focused on skills testing/ RPL. This calls for focusing NTQF levels and qualifications, and processes as explained in the TRSP.</p>
40201	<p>Enhance the preparatory TVE at the Grades 6,7, and 8</p> <ul style="list-style-type: none"> <li>▪ In absence of properly structured Preparatory TVE in Grades 6 to 8, students are in dilemma to make decision whether or not to enroll in Technical Stream (Grade 9) and Pre-Diploma/ Diploma after SEE graduation.</li> <li>▪ As of now, in grade 6 to 8, a new subject 'Occupation, Business and Technology' is being taught to open up students towards future career prospects and providing technical and vocational soft skills in Nepal<sup>11</sup>. In other words, it is supposed to be preparing them or orienting them towards technical and vocational education. However, its contents appears to be just orienting the students enough to attract them towards this sector. However, it appears to be insufficient as students should also know the future after they join the TVE world. It would be useful to provide them some experience with the TVE and world of work. These aspects of education are still missing.</li> </ul>
40306	<p>Align existing Skills level 1 to 4 with NTQS</p> <p>The present Skills Level 1 to 4 certification by NSTB is for recognition for employment in that occupation. In NTQF, it is thought for qualification like NVQ level 1 to NVQ level 8. For achieving the qualification of any level, the standards and curriculum for that level will be defined by experts from BIAs upon facilitation by TVE facilitators. On the basis of such documents, the existing Skills level of the individual will be aligned and credit value for that certificate based on the standards and curricula will be awarded. However, all these details are the responsibility of standards and curriculum development process, which in other words is NTQAA responsibility.</p>

<sup>10</sup> Pradhan, H. 2019. Roadmap on Development and Operationalization of NTQS in Nepal. CTEVT/ NSTB - Swiss Contact NTQS Project, Sanothimi, Bhaktapur.

<sup>11</sup> Maskey, S. 2019. Choosing Technical Education and Vocational Training: A Narrative Inquiry. Kathmandu: <https://doi.org/10.3126/jer.v9i2.30460>

40403	<p>Align NTQF with relevant international and South Asia Regional Qualification Frameworks (SARQF) to facilitate workforce mobility across the SA borders</p> <ul style="list-style-type: none"> <li>▪ While finalizing NTQF, it need to be aligned with SARQF and other relevant international frameworks to facilitate workforce mobility and education services within and across the South Asia Regional borders.</li> <li>▪ This provision will allow recognition of our certificates and offer seamless opportunity for workers movement and getting employment as appropriately available.</li> </ul>
50801-1	<p>Improve Nepal Standard Classification of Occupation (NSCO) aligning with NTQF level descriptors and occupations in the existing/upcoming industries/economic sectors</p> <ul style="list-style-type: none"> <li>▪ There exist NSCO. However, it appears not properly aligned with industry occupations and their level, neither does it so with educational qualifications.</li> <li>▪ NSCO should facilitate organizing jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job.</li> <li>▪ NSCO should follow a scientific and hierarchical approach having major, minor and unit groups of classification and should reflect all occupations in the existing/ upcoming industries/ economic sectors available as per CBS's NSIC.</li> <li>▪ Most importantly, it should be structured in such a way that the industry job classifications and TVET qualifications from qualification awarding bodies are matching, at least helping avoid confusion.</li> </ul>
50802-1	<p>Establish system, in collaboration with BIAs, more specifically, with SSCs for forecasting workforce demand as per NTQF aligned NSCO</p> <ul style="list-style-type: none"> <li>▪ One of the reasons for low enrollment in TVE may be due to low employment prospectus for TVE graduates in the BIAs. Training institutes are producing workforce for the country. However, BIAs claimed that there is mismatch in competency in demand and that with new graduates which follows their opinion, that 'they are not getting workforce with required competencies within the country and forced to call from other countries and abroad'. In order to address this problem, forecasting workforce demand by the BIAs based on the NTQF level descriptors aligned with NSCO should exist. Labour market forecasts, differentiating by occupation and education, are now being created at regular intervals in a number of countries.</li> <li>▪ The education/ training to be conducted should address the labour market demand i.e. need based.</li> <li>▪ It is proposed to establish Workforce forecasting system in partnership with BIAS and is published in the website helping planners, policy makers and TVET providers make their actions evidence-based.</li> </ul>
50806	<p>Develop NSCO based needs assessment survey as pre-requisite for offering qualifications in other sectors</p> <ul style="list-style-type: none"> <li>▪ TVE in Nepal is criticized for being supply driven. Whatever qualifications provided from the very beginning (engineering, agriculture, hospitality and health) of the establishment of the training institutes are continued till now irrespective of their absorbability in the employment market.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ In order to match the number of graduates to be prepared and the required number of workforce in the job market (public and private sectors), employment market assessment survey is considered as pre-requisite for offering qualifications in the sectors like aviation, IT, banking, fashion design etc. This will reduce the unemployment of the graduates.</li> </ul>
50901	<p>Operationalize Communication strategy at federal, provincial and institute level</p> <p>As explained in the TVET Sector Analyses Report (TVET SAR 2022) and TRSP 2022, TVET is complex subject and involves many stakeholders from all governance levels – policy makers, politicians, practitioners, bureaucrats, students/ graduates and parents, and business and industry. Making their participation effective requires them understand such complexity. This could be made possible by development and operationalization of communication strategy at all levels – federal, province, local and institute/ school level.</p>
51007	<p>Allocate separate coordinator for program</p> <p>In the TRSP document, it is envisioned that each institute will run at least three program (Pre-diploma only, or Pre-diploma and Diploma, or Diploma and Advance diploma). Either there will be different occupational program or different level of occupational programs, it requires different coordinator to coordinate the programs within the institute.</p>
60102-1	<p>Convert CTEVT into National Quality Assurance Authority (NQAA) with main responsibility on regulatory/quality assurance ( such as research, ILE resources development including chief master instructors preparation, instructors' accreditation, and assessments (academic and physical) and certification, recognition and equivalency) functions. It should be able to demonstrate the quality TVET and provide direct and/ indirect technical backstopping suitable to the current governance structure where each level considers itself equal to another.</p> <p>However, with the provision of current CTEVT Act, it assumes both implementation and regulatory responsibilities. As such CTEVT is overburdened with implementation responsibility of over 1000 Technical Schools. It is best envisaged to leave one of the two, preferably the implementation role.</p> <p>Ample justification exists why the NTQAA (after conversion of CTEVT) needs to assume the quality assurance than the implementation role. With over 30 years of experience, CTEVT has proven expertise in wide range of TVE aspects required to make TVE system operational. They include labor market research, standard/ curriculum develop/ revision, testing various TVE implementation models, teacher preparation and quality assurance including assessment and certification. With these expertise, it is best placed to provide technical backstopping and making policy advice. CTEVT constituents schools particularly, they have highly qualified (academic and training) instructional staff with capacity to manage technical schools with proven relevance to the BIAs/ economic sector. Similarly, CTEVT has also proven expertise in conducting TVE research, managing MIS (both TVE MIS and LMIS) and organizing knowledge exchange events such as subject specific workshops/ seminars and research journal publication. Hence, it is suggested to convert CTEVT into NTQAA.</p> <p>Achievements so far made by CTEVT are due to its expertise with the existing human resources (HR).</p>

60105

Taking experience from at least two of the South Asian apex TVET Bodies (Pakistan and Bangladesh), absence of own experience gathered from schools management, it can be said the policies and quality assurance system developed will be weak. It will be difficult for these bodies to prepare impenetrable system. Therefore, for demonstration and learning purpose, as part of quality assurance responsibility, NTQAA is envisaged to implement 2-3 CoEs/ model schools in each province. In other words, these schools are considered as part of quality assurance mechanism.

Revise/ update existing relevant rules, regulations and bylaws in line with new Acts and context  
For instance, revision of TITI, NSTB bylaws enabling them to deliver their responsibilities efficiently.

**Annex 13: Explanations on financial estimates**

<b>Code</b>	<b>Objectives/strategies/ interventions</b>	<b>Estimated costs</b>	<b>Estimated costs details</b>
<b>Objective 10000</b>	<b>Expand TVET programs ensuring access and equity, and for innovation</b>		
<b>Strategy: 10100</b>	<b>Ensuring balance of TVET programs among federal, provincial and local level</b>		
10101	Provide access to market responsive TVET programs at local levels targeting inclusion (by also including full board scholarships to the students from local levels where it is not possible to open schools)	Establishment of TVET institute in the new local level to provide access:74	Cost of feasibility per institute: 150000 and Cost of physical verification per institute: 150000

Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
10102	Provide long term TVET programs	<p><b>Increase utilization of existing capacity</b> 65% in year 2080; 75% in year 2081; 85% in year 2082</p> <p><b>New concept with new market demanded programs:</b> 2 years' pre-diploma 2 years' diploma 1-1.5 year advance diploma (L5) courses introduced in year 2083</p> <p><b>Minimum progrms per school</b> At least 3 programs in each institute</p> <p><b>Merger</b> 45% institues with below 50% capacity utilized merge</p> <p><b>Total for 10 years: 1376682</b></p>	<p><b>Total cost of program run: 53,668,000 per year</b> 372,000 per students and 7% cost covered by other activities thus, cost per student is 345,960.</p> <p><b>Human Resources Cost: 30,467,000</b> - Principal (Officer-II)-1 person @800,000; - Vice Principal (Officer-II)-1 person @800,000; - Program Coordinator (Officer-II)-1 person*3 programs @800,000; - Instructor (Officer-III)-5 persons*3 programs @721,000; - Admin/finance Officer (Officer-III)-1 person @721,000; -Assistant Instructor (Assistant-I)-2 person*3 programs @580,000; - Admin/finance/store/library/Exam Assistant (Assistant-I)-2 persons @580,000; - Teaching Aid (Assistant-II)-1 person*3 programs @551,000; - Office Assistant(Assistant-II)-1 person @ 551,000; - Driver (bus driver + jeep driver)-2 persons @ 501,000; - Office helper-4 persons @441,000; - Security Guard-3 persons @ 329,000;</p> <p><b>Staff welfare and capacity development</b> - Medical expenses of above staffs-42 persons @40,000; - Gratuity fund of above staffs-42 persons @50,000 and -Capacity Development of above staff/ instructors-42 persons @15,000);</p>



Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
			<p><b>Travel and visit cost</b> 697,680 (Program Monitoring &amp; Evaluation- 1 person*4 days per twice month* 3 program @2850 per person day(DSA-1600 and Travel-5000);</p> <p><b>Industry/field visit</b> 48 persons*2 days*3 program@570 per person day (DSA:1600, Travel-24000);</p> <p><b>Student exhibition visit</b> 48 persons*2 days*3 program@570 per person day (DSA:1600, Travel-24000);</p> <p><b>Student WEP/OJT/Block study</b> 48 persons*2 days*3 program@570 per person day (DSA:1600, Travel-24000));</p>
			<p><b>Physical Facilities Cost</b> -13,205,000 (5% cost sharing of occupational equipment-12 sets*3 program @2000,000; 5% cost sharing of Mobility and outreach facilities 2 Sets @6000,000; 5% cost sharing of furniture and fixture-144 Sets @50,000; 4% cost sharing of workshop/shed-9 units @2000,000; 5% cost sharing of office equipment-10 sets @250,000; 4% cost sharing of building structure-4000 square meter @ 45,000 and 4% cost sharing of other structure-1 unit @15000,000);</p>

Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
			<p><b>Office operation Cost</b> -3,152,000 (Allowance for board/subject committee(SMC;PSU/SSU etc)-12 meeting @25,000;</p> <p><b>Allowances</b> - Principal allowance-1 person @ 24,000; - Vice Principal Allowance-1 person @18,000; - Coordinator allowance- 3 persons @18,000; - Teaching allowance -7persons*3 program@30,000; - GESI focal person allowance-1 person@ 24,000;</p> <p><b>Utilities and repair and maintenance</b> - Drinking water expenses-12 months@3,000; - Electricity expenses-12 months@5000; - Telephone expense-12 months@ 4,000; - Internet expenses-12 months @8000; - Courier expenses-12 months @2000; - Fuel for vehicle-2880 liters per year @200; - Maintenance of vehicle 4 times @25,000; - Maintenance of equipment- 12 months @ 10,000; - Maintenance of furniture &amp; Fixture-12 months @ 5,000; - Maintenance of building and structure-12 months @ 10,000; - Office stationary-12 months@ 10,000; - Printing expenses-12 months @8000; - Other materials-12 months @25,000; - Newspaper/magazine -12 months@ 3,000; - Advertising and Notice publication-12 months @12,000; - Renewal and registration (vehicle and software)1 time @70,000 and - Refreshment-12 months@ 8000;</p>

Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
			<b>Research and development cost</b> - 1,850,000 (Demand analysis/Signaling study-1 study @450,000; - Tracer Study-1 study @ 300,000; - Impact Study-1 study @500,000; and - Publicity expenses-12 months @50,000) and
			<b>Direct Program Cost</b> - 4,296,000 (Teaching (practical) Material-48 students*3 program @6,000; - Part time teaching -2000 hours @600; - Soft skill instruction-120 hours@ 600; - OHS instruction cost-120 hours @ 600; - Student evaluation activities (exam) student-48 students*3 program @1,000; - recreational activities--48 students*3 program @500; - Student workplace insurance-48 students*3 program @750 and - Student community work/learning activities-48 students*3 program @2,000)
		<b>No. of enrolment for enterprise development program</b> -Total for 8 years: 250618 (5% to 25% from year 2082 to 2089 of total enrollment)	Start-up Costs @20000 per student and enterprise development facility @10000 per student
		<b>No. of enrollment for self-employment</b> -Total for 8 years: 243303 (20% from year 2082 to 2089 of total enrollment)	Start-up Costs @20000 per student

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
10103	Enhance gender balance in TVET learning opportunities	<b>No. of female students in TVET programs</b> Total for 10 years: 657434	GESI specific tools support for female student @ 1000 per student
10104	Provide short term TVET programs for unemployed youth	<b>No. of enrolment in short term TVET programs per annum</b> Total for 10 years:3114258 (Estimated based on NLFS 2018/19 data):	
		<b>Livelihood Training (50% of total target)</b> Total for 10 years:1557132	cost of livelihood training per trainee @10000
		<b>Credit-based modular Level 1</b> (6 months) Training as per NVQ level descriptor (25% of total target) Total for 10 years:778565	Cost of level-1 (6 months duration) per trainee @40000
		<b>Credit-based modular Level 2</b> (12 months) Training as per NVQ level descriptor (25% of total target) Total for 10 years:778565	Cost of level-1 (12 months duration) per trainee @70000
<b>10200</b>	<b>Expanding various TVET programs for existing worker at farm and off-farm (skilling, reskilling and up-skilling).</b>		
10201	Provide training to existing worker using various TVET models	<b>No. of trained existing worker</b> using roving instructional approach: Total for 10 years: 292000	cost per trainee @12000
10202	Provide training to migrant workers using various TVET models	<b>No. of trained migrant workers</b> Total for 10 years:790000	cost per trainee @10000

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
10203	Provide training to returnee migrant workers	<b>No. of trained returnee migrant workers (1 month)</b> Total for 10 years: 200000	cost per trainee @10000
<b>10300</b>	<b>Providing geographical, gender and social inclusion through various scholarship programs</b>		
10301	Increase full board scholarship quota for needy people and for ensuring access (from the local levels without TVET schools)	No. of students and local levels with full board scholarship to the students from local levels where it is not possible to open schools - 20 from each LLs without TVET schools. <b>Total for 10 years:5600</b>	Full Board Scholarship (Total fees minus education cost per student i.e. additional costs)@152000
10302	Increase full board scholarship quota for needy people and for ensuring social inclusion	No. of full board scholarships for bipanna, females, loponmukh aadibashi, janjati, Dalit, people from remote areas, Differently able people, conflict affected. <b>Total for 10 years: 10360</b>	Full Board Scholarship (Total fees minus education cost per student) for disadvantaged groups@152000
10303	Increase classified scholarship (Lakshit barga chattrabriti provides tuition fee free education) scheme	No. of classified scholarships per program per school:3(4) in first year and then 6(8)	Scholarship provided by Technical Schools
		No. of merit scholarships per program per school:1 in first year and then 2	Scholarship provided by Technical Schools
10304	Conduct classified scholarship entrance exam in the same centre where general entrance exam is held		

Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
<b>10400</b>	<b>Expanding/ abating TVET institutions/programs as per Geographical and demographical distribution</b>		
10401	Prepare sector education brief (Feasibility study, projection, structure)	<b>No. of sector education brief developed</b> Total 39	Cost of education brief development per sector@2500000
10402	Expand number of school	<b>Additional No. of schools offering long term programs:</b> Total in 10 years:1757	
		<b>Additional No. of CoEs/ model schools</b> Total in 10 years: 21 (max 3 in each province)	<b>Additional infrastructure costs</b> New establishment@ 10000000 and COE Management cost per year @1000000
		<b>No. of short term training providers (each program per provider)</b> Total New affiliation: 737 in 10 years	<b>Costs</b> Cost of Physical Assessment @25000 and Cost of feasibility assessment @ 25000: Total@50000
10403	Establish Schools for Person with Disability (0.13%)	<b>No. of schools for persons with disability</b> Total 33 in 10 years	Upgrade existing physical facility to make it disable-friendly (Ramp, furniture etc.) (Additional Costs)@ 500000
<b>10500</b>	<b>Scaling up of access and expansion in Technical and Vocational Education</b>		
10501	Diversify horizontal and vertical expansion of TVET programs including on green technology/ energy and jobs	<b>No. of Curriculum design in L5:</b> Total 19	cost of curriculum design in L5@1500000
		<b>No. of Curriculum design in L6:</b> Total 10	cost of curriculum design in L6@2000000

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
		<b>No. of student enrollment in L5:</b> Total 114813	cost of program lunch in L5 per student@175200
		<b>No. of student enrollment in L6:</b> Total 40362	cost of program lunch in L6 per student@525600
10502	Introduce Preparatory TVET in Grades 6 to 8	3 Nos. of Curriculum revision to introduce Preparatory TVET in Grades 6 to 8: each in 6 to 8 grade (in 2081)	cost of curriculum revision@500000
10503	Prepare sector education brief (Feasibility study, projection, structure) for L5 and above	<b>No. of sector education brief developed for L5 and above:</b> Total 25	Cost of education brief development per sector@2500000
10504	Increase sectors of economy to offer TVET programs - long and short term programs by also keeping focus on green technology/ energy and jobs		
<b>10600</b>	<b>Establishing multi entry and multi exit education structure for enhancing access to include work needing learners for 'flexile learning' and 'Learning while earning' opportunities</b>		
10601	Make all course curriculum modular, competency and credit based		
10602	Open higher level TVET qualification through NVQS based multi entry and exit education structure		
<b>10700</b>	<b>Establishing hostel facility for needy people</b>		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
10701	Establish separate hostel for girls, boys and disability for needy	<b>No. of existing institute have hostel facilities:</b> 302 and addition new institute within next 10 years: 96; Total for 10 years:398	Cost of construction of Hostel @ 27500000 and Operation cost each hostel per month@8000
10702	Develop/refurbish the current infrastructure to ensure access of LWD to instructional learning environment (ILE)	No. of Institutes for infrastructural upgradation with next 5 years: 1592	Cost of develop/refurbish the current infrastructure to ensure access of LWD@11000000
<b>10800</b>	<b>Ensuring balance of TVET programs among federal, provincial and local level</b>		
10801	Introduce/scale up multi shift learning opportunity		
<b>20000</b>	<b>Improve Quality (instructors, standards and curriculum, instructors preparation, physical infrastructure and examination/ assessment) and Efficiency of TVET services</b>		
<b>20100</b>	<b>Operationalizing the Accreditation system</b>		
20101	Operationalise TVET accreditation body as a wing of National Quality Assurance Authority (NQAA) (conversion of current CTEVT)	NQAA Accreditation bylaw-1 (in 2080)	Cost of NQAA Accreditation bylaw @800000
20102	Accredit ate TVET schools	<b>No. of Accredited institute</b> Total in 10 years: 2799	Cost of accreditation@300000



Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
20103	Operationalise instructors accreditation/ licensing system	Development of Rules/manual for operationalising instructor accreditation/license-1 and conduct Instructors' licensing examination and certification  <b>Total 36160</b> existing:18602 and new:17558	Cost of development of Rules/manual for operationalising instructor accreditation/license@500000 and cost of Instructors' licensing examination and certification@1500
<b>20200</b>	<b>Ensuring the number of instructors as per curriculum requirement</b>		
20201	Operationalize long term TVET sector plan for instructors preparation/ development	Annual Instructors' capacity development plan -Total for 10 years: 10	Cost of annual instructors' capacity development plan@500000
20202	Hire instructors as per approved organogram	No. of New staff Hiring and selection within 10 years	Hiring and selection costs (As per PSC Norms)@45000 per person
20300	Institutionalize/Widening instructors' capacity development opportunities		
20301	Put instructors preparation plan in place	<b>Annual Workshop on training Plan Preparation</b> Teacher Training Standard Development (Workshop Plus others)-1(in 2082)	Annual Workshop cost for training Plan Preparation@500000; Workshop cost for teacher training standard development@750000
20302	Ensure instructional training to working instructors including ICT based learning management system (LMS)	<b>No.of instructor trained:</b> Total with in 10 years: 48712	Capacity Development Training Costs (As per TITI Norms)@36900

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
20303	Increase occupational skills upgradation training to instructors (including various models such as apprenticeship and enterprise development of TVET)	<b>No.of instructor trained in OSU</b> Total with in 10 years: 36160	OSU Training Costs (As per TITI Norms)@50000
20304	Provide training to management/ administrative staff	<b>No.of management staff trained:</b> Total with in 10 years: 7623	Management skill Training Costs (As per TITI Norms)@46000
20305	Provide training to MoEST and province, district and local level personnel	<b>No. of MoEST Personnel trained:</b> Total within 10 years-125	Training Costs for MoEST Personnel@60000
20306	Provide higher degree educational opportunity for underqualified instructors only	<b>No. of Instructors having higher degree educational opportunity:</b> Total within 10 year 930	Cost of higher degree educational program@800000
20400	Reducing instructors' turnover		
20401	Reduce instructors' turnover		
20402	Introduce institute organogram with provision of permanent instructors		
20403	Ensure schools have all instructors as per the approved organogram		
20404	Establish school fund to engage instructor and student in production activities (Including earning from consultancy services by teachers and students after providing them with approved incentives/share)	Update the School Fund manual-1	Cost of revision the School Fund manual@500000
20405	Reduce share of part time instructors		

Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
20406	Mobilized expert worker/ successful entrepreneurs from world of work to deliver lectures/ exchange session at school level		
<b>20500</b>	<b>Widening workplace based practical training</b>		
20501	Make work based learning /OJT mandatory in all TVET programs		
20502	Establish effective collaboration between TVET system and BIAs.	<b>Develop / update directives for collaboration-1;No. of students having OJT/ Workplace based training</b> Total with in 10 years:1376682	Cost of develop / update directives for collaboration@500000; cost of OJT/ Workplace based training@1000
<b>20600</b>	<b>Reforming learning resources (standards and curricula) to ensure all these resources are NVQS level descriptors based and facilitate 'flexile learning' and 'Learning while earning' opportunities</b>		
20601	Operationalize NVQS implementation manuals for aligning learning resources with NVQF level descriptors (Covered by research, standard/curriculum development, teachers' training and development, management etc. )	<b>No. of meetings</b> No. of Awareness Workshops-20 each year; No of High-level NVQS coordination committee Meetings (Tri-annual)-3 each year; No. of technical level NVQS coordination/implementation committee Meetings (Quarterly):4 each year	Cost of awareness Workshops@150000; Cost of High-level NVQS coordination committee Meetings@100000; Cost of technical level NVQS coordination/implementation committee C78Meetings@100000

Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
20602	Ensure learning resources (standards/ curricula) NVQF level descriptors based		
20603	Reform standards for implementation of NVQS		
20604	Reform curricula for implementation of NVQS and also facilitating of multi-exit/ entry provision for facilitating 'self- financed learning' and offering seamless academic and self/employment career path		
20605	Ensure bridging inputs for entrance weak SEE graduates.		
20606	Customise curricula to include specific enterprise development competence with individuals enterprise development projects		
20607	Review weight of science and mathematics in curricula to ensure NVQF Level descriptor alignment		
<b>20700</b>	<b>Improving Laboratories</b>		
20701	Increase the share of schools/ institutes with more than 75% workable machine and equipment	<b>No. of institute to procure additional machine equipments with less than 75% workable machine and equipment</b> Total within 10 years:4555 institute and annual maintenance of machine equipments	Cost of machine equipment @20000000 and annual maintenance cost @9000 per students

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
<b>20800</b>	<b>Enhance cross-fertilization in ILE through ICT based distance/virtual learning and e-learning resources,</b>		
20801	Enhance ICT and e-learning system for distance/virtual learning (collaboration with expert teacher not available in any specific school/ province)	<b>No. of institute to procure ICT and e-learning system</b> Total within 10 years:1562 institute	Cost of ICT and e-learning system@2000000
20900	Improving internal efficiency		
20901	Merge schools with less than the target ratio		
20902	Maintain teacher-student ratio		
20903	Increase cycle completion rate (for students who complete specific qualification of study continuously, semester 1 to 4)		
20904	Increase survival rate (within additional 3 years time) (for students who complete specific qualification of study continuously, semester 1 to 4)		
20905	Increase promotion rate to Grade 12 (diploma level)		
<b>21000</b>	<b>Availing technical M&amp;E system</b>		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
21001	Operationalize technical backstopping (Monitoring) system for Provincial and Local level	No. of Provincial level technical backstopping (Twice in every province per year) and Local level technical backstopping (Twice in every province per year monitoring 10% of LGs on rotation basis every year) <b>Total for 10 years:280</b>	Cost of backstopping at province level@250000 and Cost of backstopping at local level@500000
<b>21100</b>	<b>Operationalizing the Accreditation system</b>		
21101	Implement module/chapters/tasks based competence assessment led formative assessment for measuring learning outcomes	No. of students having assessment- <b>Total for 10 years: 1376682</b>	cost of documentation of assessment 25 per semester@100
21102	Establish practice of Instructors' evaluation by students		
21103	Institutionalise practical based assessment (final examination) system	<b>No.of students having Practical Examination</b> Total for 10 years: 1376682	Practical Examination Costs (Assessors etc.) (Rs. 100 per student per semester)@400
<b>21200</b>	<b>Strengthening institutional capacity of assessment/ examination system (OCEs)</b>		
21201	Institutionalize Office of Controller of Examination (OCEs) capacity to swiftly facilitate examination and ensuring timely certification (not more than two months)		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
21202	Restructure CTEVT OCEs examination/ assessment system with purpose to make it provinces connected ICT based system conduction/facilitation and certification	Updating and operationalizing the ITMS for OCE-1 Annual Renewal and maintenance of the ITMS <b>Total for 10 years: 10</b>	Cost of updating and operationalizing the ITMS@4000000 and Cost of annual renewal and maintenance of the ITMS@1500000
21203	Reduce the duration between final examination and certification	Establish and strengthen the examination units in each province (For answer-sheet checking, practical assessments etc.) <b>Total for 10 years: 70</b>	Annual cost of examination per province@24000000
21204	Digitalize outcomes of both formative/internal assessment and final assessment for making quick and swift (real time)		
21102	Establish practice of Instructors' evaluation by students		
21103	Institutionalise practical competence assessment (final examination) system	<b>No.of students having Practical Examination</b> Total for 10 years: 1376682	Practical Examination Costs (Assessors etc.) (Rs. 100 per student per semester)@400
<b>30000</b>	<b>Enhance outputs of TVET services</b>		
30100	Increasing number of graduates		
30101	Increase number of graduates in long term (pre-Diploma, Diploma and advance diploma) and short term programs		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
30200	Increasing Institutional Learning Environment (ILE) resources (standards and curricula)		
30201	Reform standards and curricula based on NVQF level descriptors	<b>No. of existing standard updating:</b> Total 225	Revision cost of existing standard@710000
		<b>No. of new standard development in L5:</b> Total 36	Development cost of new standard in L5@1000000
		<b>No. of new standard development in L6:</b> Total 18	Development cost of new standard in L6@1200000
		<b>No. of existing curricula updating to align with NVQS level descriptors</b> Total 150	Revision cost of existing Curricula@500000
		<b>No. of new livelihood training curriculum development:</b> Total 100	Development cost of new livelihood training curriculum@350000
		<b>No. of Modular (Short-term) courses development of Pre-Diploma and Diploma:</b> Total 320	Development cost of Modular (Short-term) courses of Pre-Diploma and Diploma@750000
		<b>No. of long term curricula Level 5:</b> Total 36	Development cost of long term curricula Level 5@1200000
		<b>No. of long term curricula Level 6:</b> Total 18	Development cost of long term curricula Level 6@1200000



Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
<b>30300</b>	<b>Continuing publication of TVET sector research reports</b>		
30301	Publish TVET sector annual report annually	<b>No. of annual TVET sector annual report</b> Total 10	Development cost of TVET sector annual report@900000
30302	Continue publication of TVET journals	<b>2 Nos. of TVET journals published annually</b> Total 20	Development cost of TVET Journal@1500000
<b>30400</b>	<b>Enhancing utilization of TVET outputs (outcomes)</b>		
30401	Enhance employment rate of the graduates		
30402	Institutionalise NVQF level descriptor based ILE resources (standards and curricula) preparation across the sector		
<b>30500</b>	<b>Increasing BIAs participants in TVET process (relevance)</b>		
30501	Ensure all TVET bodies have at least 50% members (outside Chair) are BIA representatives		
30502	Ensure all heads of BIAs are by default members of relevance TVET bodies (CTEVT Assembly, council etc.)		
30503	Ensure TVET schools have 50% members from BIAs		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
30504	Conduct study on system for incentivising business and industry to encourage productive partnership		
<b>30600</b>	<b>Increasing number of Sector Skills Council (SSC)</b>		
30601	Establish SSCs through legislative instruments by defining their roles, responsibilities and incentives		
30602	Form sector skill councils (SSCs)	<b>Operationalizing SSCs (for LMIS facilitation, Job fairs, standard and curriculum development contribution)</b> Total 20	Annual operational cost per SSC for the first four years: GON might cover 100% of the costs BIAs shall/ expected to bear at least 25% of the costs from fifth year onwards  <b>Staff requiremen</b> 2 staff (officer 1, assistant 1 plus office operations costs) @2300000
<b>40000</b>	<b>Ensure Integration and recognition of TVET qualifications (operationalization of NVQF)</b>		
<b>40100</b>	<b>Accelerating NVQS implementation process</b>		
40101	Revise/put NVQS implementation provision in current/new TVET Act and other relevant TVET legislative instruments		
40102	Ensure recognition of all TVET Qualification as equivalent to General education Qualification		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
40103	Revise the current NVQF to include technical education to term it as 'National TVE Qualification Framework'		
40104	Revise the current NVQF Levels from L1 to L8 to clarify level 5 as advance Diploma		
40105	Introduce qualifications for Advance Diploma and Bachelors qualification level		
40106	Establish NVQS Steering Committee (NSC) including membership from VC's of universities in the convenorship of NQAA (next form major role of CTEVT) for ensuring recognition of TVET qualifications and employment through TVET Act for NVQS implementation facilitation	<b>No. of coordination committees meeting (High-level NVQS coordination committee) (Tri-annual)</b> Total for 10 years: 30	Cost of coordination committees meeting@100000
40107	Establish NVQS Management Committee (NMC) including membership from Deans of universities in the convenorship of NQAA (next form major role of CTEVT) for ensuring recognition of TVET qualifications and employment through TVET Act for NVQS implementation facilitation	<b>No. of Technical level Coordination Committee meeting (Quarterly)</b> Total for 10 years: 40	Cost of coordination committees meeting@100000

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
40108	Prepare NVQS implementation manuals	<b>No. of NVQS implementation manuals</b> Total for 10 years: 6	Cost of NVQS implementation manuals@500000
<b>40200</b>	<b>Restructuring TVET qualifications</b>		
40201	Enhance the preparatory TVET at the Grades 6,7, and 8		
40202	Manage bridging system to facilitate movement from TVET to General Education and Vice versa at relevant NVQ Levels		
<b>40300</b>	<b>Ensuring recognition of TVET qualifications</b>		
40301	Convert existing Technical Stream as Secondary qualification (from 12.5 yrs. to 12 yrs.' education)		
40302	Reduce duration of 3 yrs. Diploma program into 2 yrs. Diploma program		
40303	Convert existing Pre-diploma into Grade 9-10 qualification level (using modular and credit based)		
40304	Ensure credit value of erstwhile pre-diploma		
40305	Resolve recognition issue of TVET qualifications from Public Service Commission and Universities		
40306	Align existing Skills level 1 to 4 with NVQS		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
<b>40400</b>	<b>Integrating competencies learned in in/non formal sector</b>		
40401	Increase number of annual skills testing graduates	No. of skills testing participants: Total for 10 years period: 2802832	Cost of Graduation skills testing @4270
40402	Increase number of Recognition of Prior Learning (RPL) graduates	No. of RPL skills testing participants: Total for 10 years period: 280284	Cost of RPLskills testing @4270
40403	Align NVQF with relevant international and South Asia Regional Qualification Frameworks (SARQF) to facilitate workforce mobility across the SA borders		
<b>50000</b>	<b>Develop TVET Management System (HR development, school management, Knowledge Management and financing)</b>		
50100	Operationalising HRM plan covering federal, provincial and local level TVET authorities		
50101	Prepare HRM Plan for federal level TVET system (CTEVT, CEHRD, CDC, NEB and others)	Development of HR Plan-1	HR Plan development cost@4000000
50102	Develop HR capacities of TVET personnel at federal levels (bureaucrats and academics, BIAs) following the HRM plan		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
50103	Provide incentive/allowance head-teacher, coordinator, account personnel of TVET institute		
50104	Operationalize Federal/Provincial/Local level/school level TVET MIS (TMIS), financial MIS (FMIS) and Employment MIS (EmMIS)	Update TVET MIS, Financial MIS and EmMIS-3	Revision cost of TVET MIS, Financial MIS and EmMIS@1000000
<b>50200</b>	<b>Supporting learners through institutionalised Learners' Support System (LSS) (school management )</b>		
50201	Establish Learner's support system (career guidance and counselling and employment facilitation) in each school in place	<b>No. of Career guidance and counselling unit</b> Total in 10 years:12655	Operating cost of career guidance and counselling unit@ 180000
50202	Involve School executive committee (SEC) in decision making process.		
50203	Establish student support unit (SSU)		
<b>50300</b>	<b>Strengthening HR capacity for school management</b>		
50301	Prepare HRM plan for institute /school level	<b>Development of HRM Plan for Schools</b> Total for 10 years: 517	Development cost of HRM Plan for Schools@300000
50302	Provide School Management training to Head Teacher/Principal		

Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
50303	Maintain IT based tracer study system at school level annually	<b>Webbased Tracer study for schools(annually)</b> Total for 10 years: 12655	Cost of data collection for tracer study@30000
		National level tracer study(annually)- <b>Total for 10 years: 10</b>	Cost of national level tracer study@500000
50400	Ensuring required finance for quality delivery (Finance)		
50401	Provide sufficient budget to ensure quality ILE at school level		
50500	Strengthening school capacity to establish School Fund		
50501	Establish School Fund for enhancing school income with purpose to benefit students, instructors and school	<b>Start-up / Seed money in the school fund</b> Total in 10 years: 2754	Start-up / Seed money in the school fund@500000
50502	Establish production/ consultancy unit structure in schools with market linkage (through outlets)		
50600	Facilitating BIAs for availing financial incentives to students during OJT		
50601	Introduce partnership scheme with BIAs for some financial incentives to the OJT learners	<b>OJT Costs to be provided to BIAs:</b> Total for 10 years:1376682	OJT Costs to be provided to BIAs@3000
50700	Increasing knowledge exchange events (knowledge management)		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
50701	Conduct Federal level exchange meetings/seminars on TVET regularly	<b>No. of knowledge exchange meetings at federal level each year</b> Total for 10 years: 10	Cost of federal level meeting/exchange@500000
50702	Conduct province and local level exchange meetings/seminars on TVET regularly	<b>No. of Province with at least one knowledge exchange meetings at provincial levels each year</b> Total for 10 years:70	Cost of Provincial level meeting/seminar@200000
		<b>No. of Local levels with at least one knowledge exchange meetings at local levels (All LLS cover in each 3 years)</b> Total for 10 years: 1917 events	Cost of local level meeting/exchange@100000
		<b>No. of schools with knowledge exchange meetings at school levels</b> Total for 10 years: 12655	Cost of school level meeting/exchange@50000
<b>50800</b>	<b>Enhancing TVET research capacity</b>		
50801	Improve NSCO aligning with NVQF level descriptors and occupations in the existing/upcoming industries/economic sectors	<b>Survey of industry (1 times in each decade) (start 2082) and Institute level research work</b> Total for 10 years:1376682	Cost of survey of industry@8000000 and Cost of institute level research work per student@13000
50802	Establish system, in collaboration with BIAs, more specifically, with SSCs for forecasting workforce demand as per NVQF aligned NSCO	Workforce demand forecasting (1 times in each decade) (start 2082)-1	Cost of workforce demand forecasting@1500000
50803	Partner with CBS to incorporate NVQF based occupational-level data in		



Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
	National Labour Force Survey (NLFS)		
50804	Institutionalize coordination among different levels of Governments on planning of specific research and during research design and sharing the findings		
50805	Update/maintain the findings of all levels of studies in TVET knowledge management system (TMIS/EmMIS)	<b>Operationalizing and documentation of knowledge management activities (annually)</b> Total for 10 years:10	Cost of operationalizing and documentation of knowledge management activities@500000
50806	Develop NSCO based needs assessment survey as pre-requisite for offering qualifications in other sectors	New sector need assessment study: <b>Total for 10 years: 7 study</b>	Cost of sector need assessment study@1500000
50807	Conduct impact studies at national level	No. of impact studies at national level (every 3 years interval):3	Cost of impact study@4000000
50808	Continue publication of comprehensive TVET progress report	<b>Annual comprehensive TVET progress report</b> Total for 10 years: 10	Cost of Annual comprehensive TVET progress report@500000
<b>50900</b>	<b>Operationalizing Communication strategy</b>		
50901	Operationalize Communication strategy at federal, provincial and institute level	Prepare communication strategy at the federal level-1	Communication strategy development cost@500000
		Develop model communication strategy at provincial, local level and school level-1	Communication strategy development cost@500000

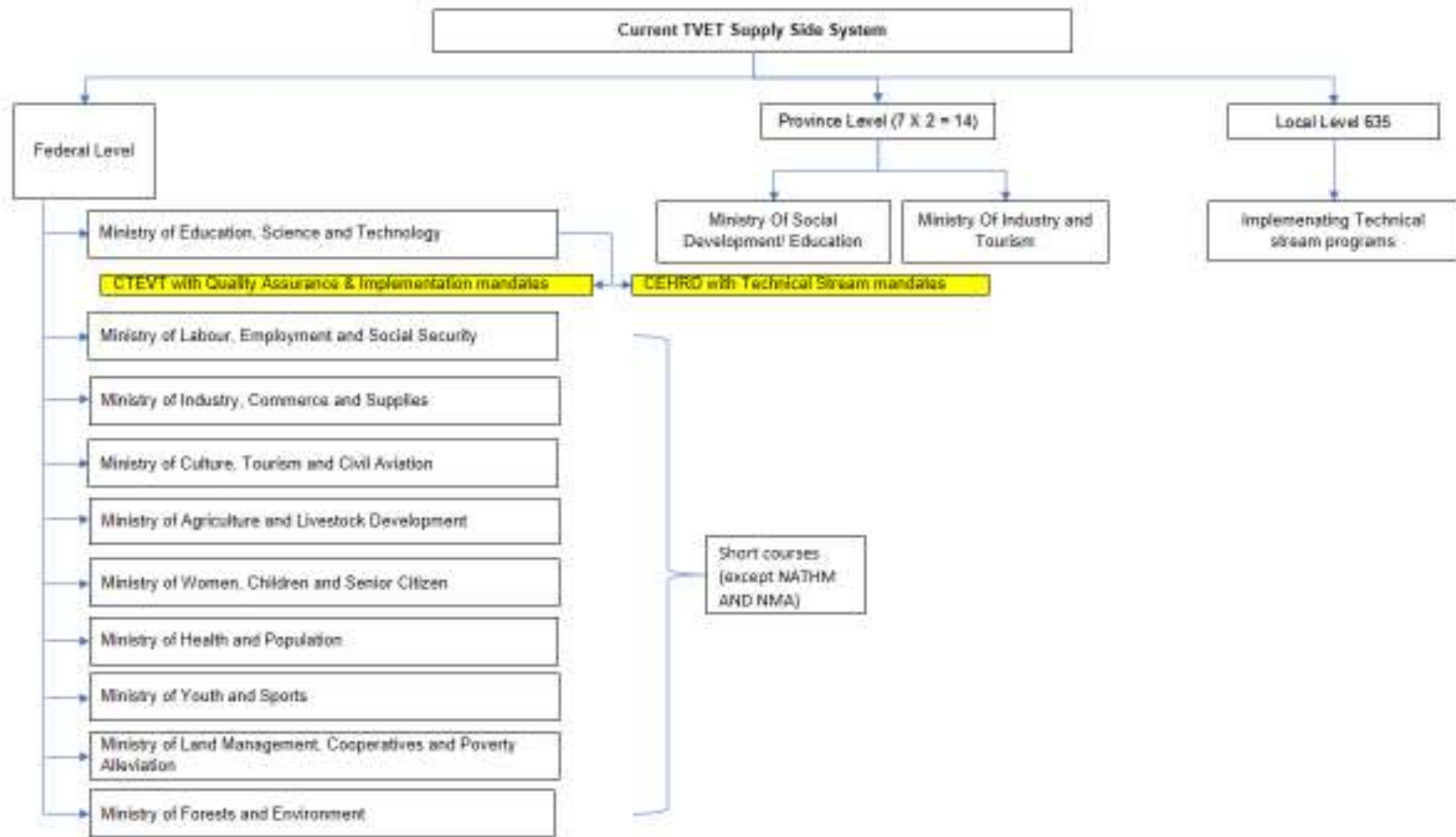
Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
		<b>Implementation communication strategy at Federal levels</b> Total for 10 years: 10	communication strategy Implementation cost at federal level@2000000
		<b>Implementation communication strategy at provincial levels</b> Total for 10 years: 70	communication strategy Implementation cost at province level@50000
		<b>Implementation communication strategy at institute/local levels</b> Total for 10 years: 12655	communication strategy Implementation cost at institute level @20000
<b>51000</b>	<b>Enhancing school level facilities</b>		
51001	Ensure toilets for both gender		
51002	Manage first aid facilities		
51003	Manage Canteen facilities		
51004	Put student grievance handling unit		
51005	Establish GESI Unit		
51006	Ensure school with head teacher with school management training		
51007	Allocate separate coordinator for each program		
51008	Give preference to female while making new hire to encourage gender equity		
51009	Give preference to people with disability while making new hire to encourage social inclusion		
51010	Ensure active SMC in each school		
51011	Manage electricity in schools		

Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
51012	Organize skill competition at province level		
51013	Organize Job fare at local level		
51014	Manage library in schools		
<b>60000</b>	<b>Improve governance and Coordination, and Financing</b>		
<b>60100</b>	<b>Restructuring of current TVET system through Governance instruments at federal and provincial levels</b>		
60101	Formulate TVET principles guided TVET Act and Rule (in context of federalization)		
60102	Convert CTEVT into National Quality Assurance Authority (NQAA) with main responsibility on regulatory/quality assurance (research, ILE resources development including chief master instructors' preparation, instructors' accreditation, and assessments (academic and physical) and certification) functions		
60103	Align NVQF with South Asia Regional Qualification Frameworks (SARQF) and relevant international frameworks to facilitate workforce mobility across the SA borders		

Code	Objectives/strategies/ interventions	Estimated costs	Estimated costs details
60104	Establish autonomous Provincial TVET Authorities (TVETAs) at province level under Provincial Ministry of Social Development/ Ministry of Education		
<b>60200</b>	<b>Segregating regulatory and implementation responsibilities through new federal TVET Act</b>		
60201	Assign regulatory responsibility/ quality assurance responsibility to CTEVT		
60202	Assign responsibility of COEs/Model Schools to CTEVT		
<b>60300</b>	<b>Reforming TVET policies in the context of new federal and provincial TVET Acts</b>		
60301	Introduce stand-alone and TVET principles guided TVET Policy		
60302	Facilitate preparation of stand-alone and TVET principles guided Provincial TVET Policy		
<b>60400</b>	<b>Enhancing coordination among and within federal, provincial and local levels</b>		
60401	Ensure coordination mechanism in the spirit of Federal and Provincial TVET Acts		
<b>60500</b>	<b>Enhancing TVET financing</b>		

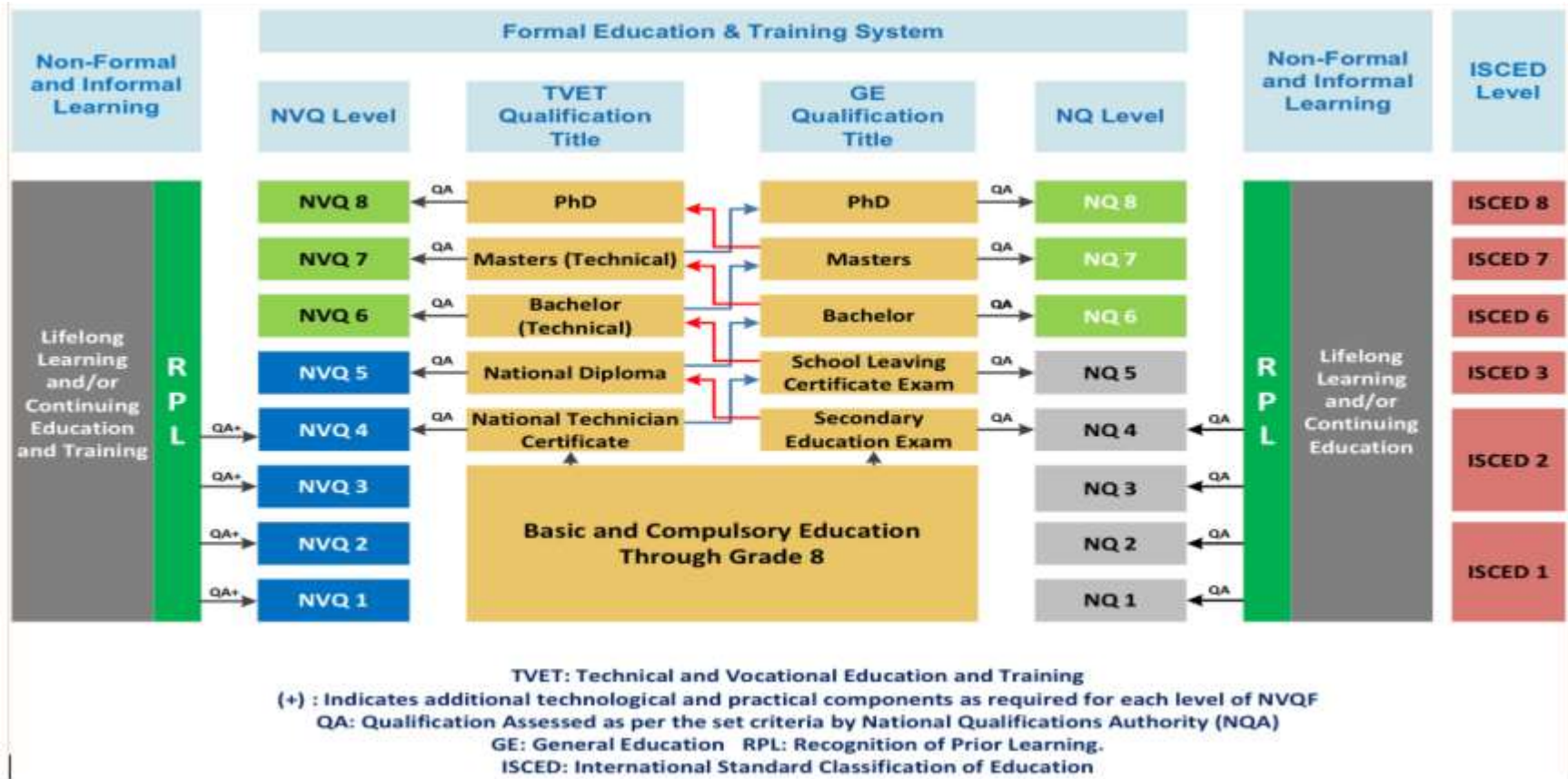
Code	Objectives/strategies/interventions	Estimated costs	Estimated costs details
60501	SWAp Approach of financing		
60502	Affordable fee structure (Constituent, Partnership, TECS and Private)	Fee structure determination every 4 years interval-3	Cost of Fee structure determination@300000
60503	Make TVET up to diploma level free of costs (Publicly funded programs)		
60504	Access to finance (soft loan)		
60505	Facilities soft loan to new entrepreneurs		
60506	Integration in Government Accounting and reporting system		
60507	Introduce cost sharing system at three level of government		
<b>60600</b>	<b>Putting technical backstopping system in place in collaboration with federal, provincial and local levels</b>		
60601	Establish technical backstopping mechanism through a Joint Team of Federal, provincial and local level TVET authorities	Technical Backstopping support each year-10	Technical backstopping support cost @ 300000 per month

**Annex 14: Current TVET institutional arrangement**



Annex 15: Government approved NVQF

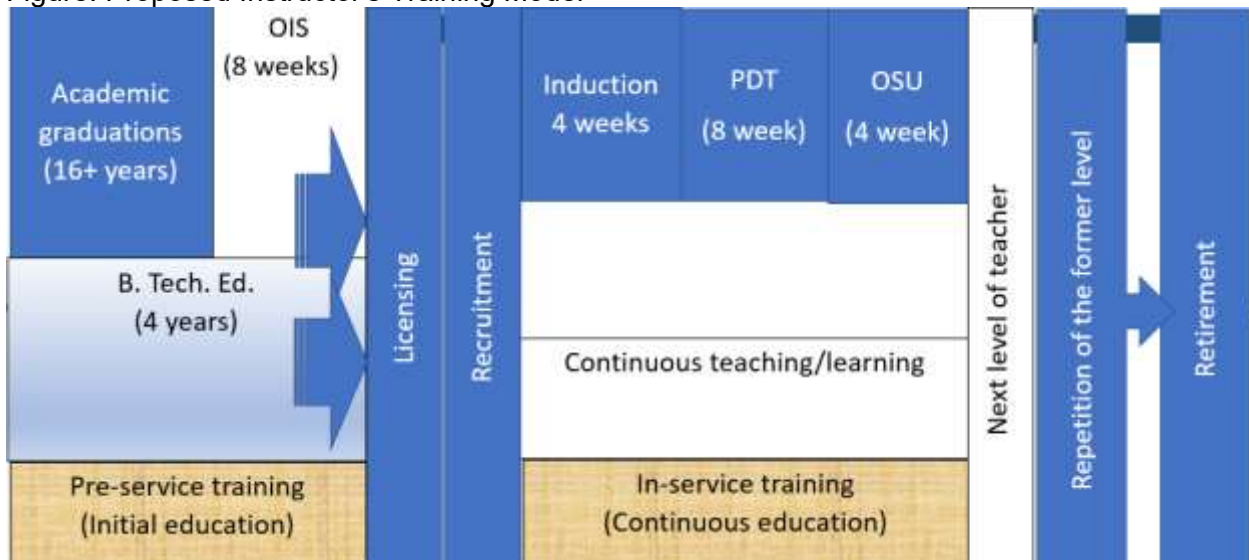
नेपाल सरकारबाट तयार राष्ट्रिय व्यावसायिक योग्यता प्रणालि



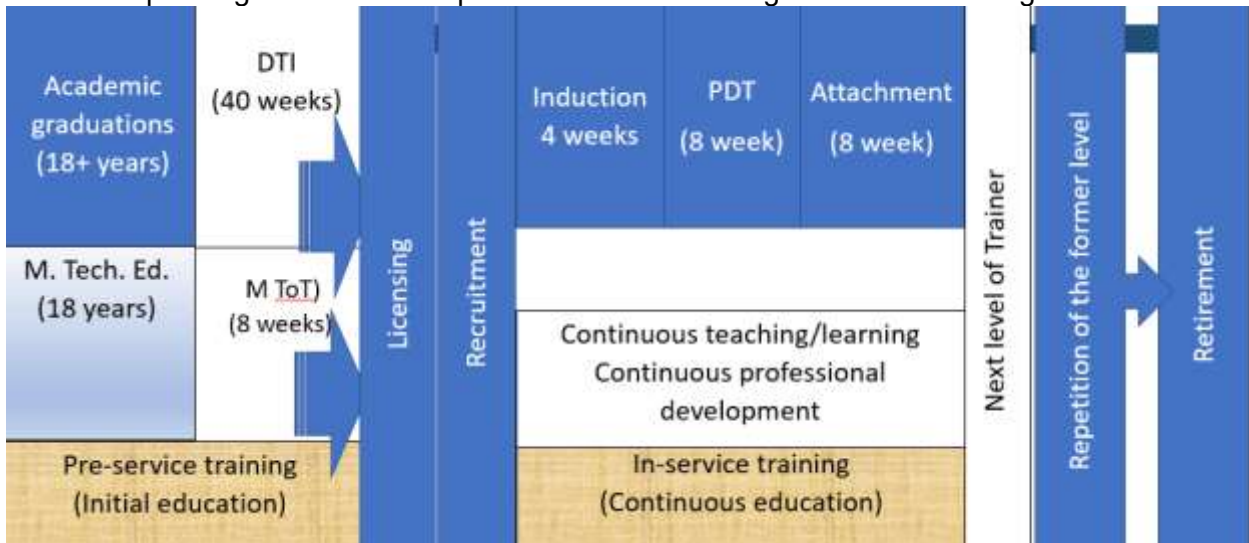
**Annex 16: Proposed Instructor's Training Model<sup>12</sup>**

The proposed pre-service and in-service teachers' development model has been presented as below.

Figure: Proposed Instructor's Training Model



The corresponding trainers' development model has been given in the following box:



The in-service development model has been proposed to complete in an extended period of four years.

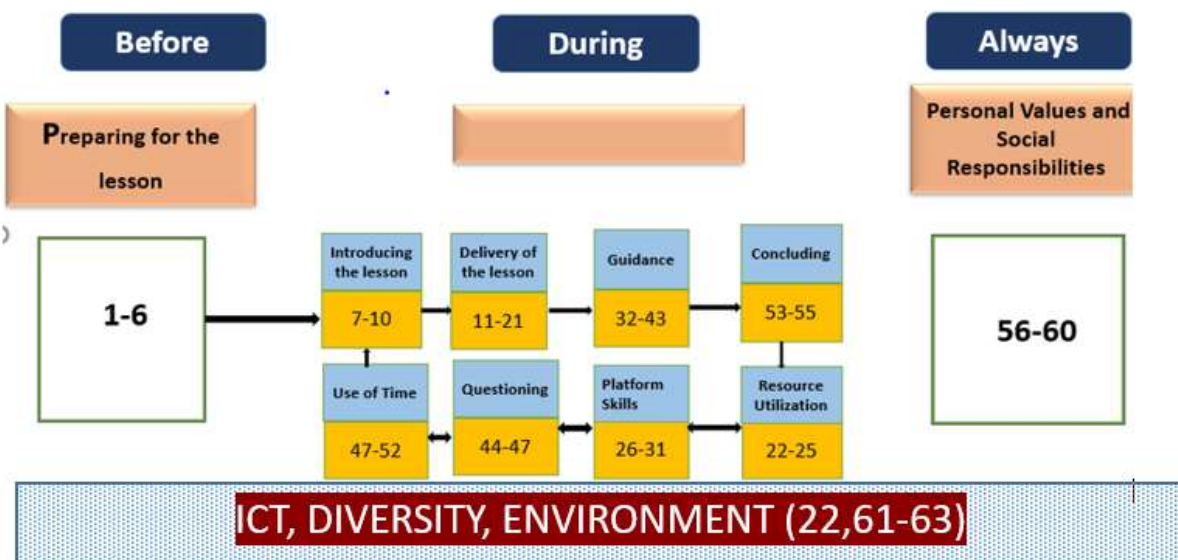
Since there is teachers licensing system already in place in general education, it is imperative to introduce it in the vocational education too. In teachers' development there are four core functions:

- Credited initial education
- Non-credited industrial experience
- Capacity development leading to licensure
- Life-long learning and continuous education and training.

<sup>12</sup> This proposal is as TITI input (Mr. Mahesh Bhattra, Executive Director).



These are some of the existing institutional set-up and some are the proposed intervention. The important achievement that TITI has attained is that it has already developed vocational teachers' standards framework. This has been given in the following box.



The standards ultimately lead to licensing and two types of licensing have been proposed in the VTSF and they are given in the following tables:

**Preliminary:** Vocational teachers earn their Preliminary license by documenting that they have the appropriate industry experiences, education credentials, and content knowledge and instructional knowledge and technology. Occupational licenses or skills test certificates would be an important factor if available. This licensure will be aimed at short term training instructors and 1-8 grade vocational teachers.

Educational Credentials	Industrial Experiences	Instructional Skills	Test	Remarks
Diploma/Grade 12/Skills Test Level 3	5 years minimum	3 months IS (1,2, and 3)	Cognitive content test Performance test (Instruction)	

**Professional:** After obtaining preliminary licensure and having at least bachelor degree on the required field, one-year documentation of teaching as vocational teachers after preliminary licensing and dispositions documentations. The candidate will be eligible for the test of professional licensure of vocational teacher. These teachers are aimed at to teach 9-12 grades and above. This license will be renewed after five years with evidence that the person is in teaching profession.

Education al Credential s	Profession al licensure	Industrial Experienc e	Instruction al Experience	Test	Remarks

Bachelor degree		One year		Content cognitive test Performance test (instructions)	Dispositions certificate, award/appreciation letters as evidence of personal/social skills
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## **Annex 17: Coordination Mechanism among three Government Levels**

### **Context and rationale**

After the country's federalization after the Constitution 2072, Nepal's governance has been divided into three levels, independent of each other. Accordingly, the technical and vocational education (TVE<sup>13</sup>) system has also been emerging in alignment with these three government levels: federal; provincial and local levels.

Following the constitutional provisions and the budget speech 2078/79 and 2079/80, the federal level is considered to have focus on quality assurance. Accordingly, CTEVT is expected to focus on quality assurance actions such as research, standards and curriculum development, federal level instructors training, accreditation and examination and certification. In analogous to these mandates. This implies making CTEVT free from schools affiliation and implementation activities. However, considering school education as local level mandate, the 9-12 technical stream schools have been managed by local levels. These two provisions clearly indicate that the rest of the TVE responsibilities i.e. management of schools above Grade 12 remains responsibility of Provincial governments.

### **The Issue**

Although efforts on explanation of responsibilities of three government levels are made above, in absence of federal TVE Act, except for implementation of technical stream under CEHRD, the rest of the responsibilities are assumed by CTEVT. However, the curriculum development and examination roles of technical stream schools are assumed by CDC and National Examination Board. Further, in absence of Federal TVE Act, the provinces are unable to in act Provincial TVET Acts. Even that prepared by Bagmati and Gandaki have remained from being effective. The issues with effective implementation could have been eased to some extent through coordination mechanism. However, it too has remained illusive despite nearly eight years of federal governance system. This situation has created multi-faceted problems in the TVET system and deteriorating each next day.

### **Proposed Coordination Mechanism**

Based on inputs from various workshops conducted during the TRSP process, TVET coordination have been proposed as explained below.

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<sup>13</sup> This paper has proposed TVE instead of TVET, due to the following to major reasons: a) Often times, TVET is considered as 'simply training' and its broad potential is undermined; b) the word 'education' also includes training, therefore, the word 'training' is not included here; and c) the fundamental of TVET is competence development, therefore, the word 'training' already encompasses 'skills development'. Therefore, addition of 'skills development' is redundant.

Table 1: Structure of National TVE Coordination Committee

<b>SN</b>	<b>Particulars</b>	<b>Details</b>		
<b>1</b>	<b>Mandating body</b>	Parliament		
<b>2</b>	<b>Composition of the NTCC</b>	<b>Position</b>	<b>Position in TCA</b>	<b>Number</b>
		Prime minister	Chair	1
		Minister, MoEST	Vice Chair	1
		Federal ministers: Labor, industry, agriculture and tourism	Member	4
		Invitee federal ministers	Member	1
		Provincial Ed. ministers	Member	5 (rotational basis)
		NPC Vice Chair	Member	
		VC, federal universities	Members	2 (rotational basis)
		Secretary, MoEST	Member	1
		Secretary, MoF	Member	1
		Chair, federal BIAs	Member	3 (rotational basis)
		National TVET Quality Assurance Authority (currently CTEVT)	Member-Secretary	1
		Total members		21
<b>3</b>	<b>Terms of Reference</b>	<b>Main responsibilities</b>		
		<ul style="list-style-type: none"> <li>a. Review on Federal and Provincial legislative and policy instruments</li> <li>b. Review of Federal and Provincial Planning and budgeting</li> <li>c. Facilitate technical backstopping by authorized/competent body (Federal Quality Assurance body i.e. CTEVT until new arrangement is made through new Act) and TVET bodies: i) across the federal level and ii) that between federal and province levels</li> <li>d. Review of progress and issues</li> <li>e. Monitoring and evaluation</li> </ul>		
<b>4</b>	<b>Frequency of meeting</b>	<b>Bi annual</b>		

### Entra Provincial TVET Coordination Committee (PTCC)

In order well encompass the local levels within each province, each province will have its own coordination mechanism with the following structure and ToR.

Table 2: Structure of Province TVET Coordination Committee under Model 1

<b>SN</b>	<b>Particulars</b>	<b>Details</b>		
<b>2</b>	<b>Composition of the PTCC</b>	<b>Position</b>	<b>Position in TCA</b>	<b>Number</b>
		Provincial Chief Minister	Chair	1
		Minister, MoSD	Vice Chair	1
		Secretary, Planning and Economic Commission	Member	1
		Secretary Tourism and Agriculture Ministry,	Member	1
		MoSD, Secretary	Member	1

		Chief, Provincial TVE Authority (PTVEA <sup>14</sup> )	Member	1
		Chief sub/metropolis	Chair (of specific meeting)	4 (alphabetical order) or as applicable
		Chief Palikas	Member	6 (rotational basis)
		Chief, Provincial CTEVT <sup>15</sup>	Member	1
		Chair, Provincial BIAs	Member	3 (rotational basis)
		Secretary, PTVEA	Member-Secretary	1
		Total members		21
<b>3</b>	<b>Terms of Reference</b>	<b>Main responsibilities</b>		
		<ul style="list-style-type: none"> <li>a. Review of Provincial legislative and policy instruments</li> <li>b. Review of Provincial Planning and budgeting</li> <li>c. Review of progress and issues</li> <li>d. Coordination with authorized/ competent body (Provincial CTEVT until new provision is made by Federal TVET Act) for managing technical backstopping</li> <li>e. Coordination with Provincial TVE Authority to manage TVET schools/ programs in the province and relevant Local levels</li> <li>f. Exchange on monitoring and evaluation</li> </ul>		
<b>4</b>	<b>Frequency of meeting</b>	<b>Trimester</b>		

### Entra Local level TVET Coordination Committee (LTCC)

In order well encompass the local levels within each local level, each province will have its own coordination mechanism with the following structure and ToR.

Table 2: Structure of Local level TVET Coordination Committee under Model 1

<b>SN</b>	<b>Particulars</b>	<b>Details</b>		
<b>2</b>	<b>Composition of the LTCC</b>	<b>Position</b>	<b>Position in TCA</b>	<b>Number</b>
		Mayer/Chief, Palika	Chair	1
		Chief, Education Unit	Member	1
		Chief, relevant units	Member	2
		Chief, relevant Education Development Unit (EDCU)	Member	1
		Relevant employers	Member	3 (rotational basis if more than 3)
		Relevant TVET professionals association	Member	2 (rotational basis if more than 2)

<sup>14</sup> In order to facilitate free interaction between business and industry/ economic sectors and Provincial TVE system, a Provincial TVE Authority (TVEA) is considered inevitable at province level. This agency will have oversight function of TVE schools implementation.

<sup>15</sup> Provincial CTEVT will be responsible for implementation of decentralized responsibility from the national TVE Quality Assurance Body (currently CTEVT). These include actions such as research, standard and curriculum development, facilitating examination and certification etc.

		Principal/ Head Teacher, relevant TVET School	Member- Secretary	1 (rotational basis in case of more than 1 school)
		Total members		11
<b>3</b>	<b>Terms of Reference</b>	<b>Main responsibilities</b>		
		<ul style="list-style-type: none"> <li>a. Review of Provincial legislative and policy instruments (federal, provincial and local level)</li> <li>b. Review of Planning and budgeting</li> <li>c. Review of progress and issues</li> <li>d. Coordination with authorized/ competent body (Provincial CTEVT until new provision is made by Federal TVET Act) for managing technical backstopping in the local level</li> <li>e. Coordination with Provincial TVE Authority managing TVET schools/ programs in the Local level</li> <li>f. Exchange on monitoring and evaluation</li> </ul>		
<b>4</b>	<b>Frequency of meeting</b>	<b>Quarterly</b>		

**Annex 18: Model/Centre of Excellence (COE) School**



## Annex 19: Structure proposed as alternative to SSC

### Proposed Industry Led Mechanism (Skill Development Center)

#### (A Center of Excellence can be developed)

##### Central Level Unit

(National Federation, Confederation, Association and Sector specific associations composed Board/Committee/Sector Committees) equipped by technically competent pool of human resources)

**Main functions:** Policy inputs, guidance, and support, Programs and projects planning, Occupational Standard Development, in-house central Demand Side LMI System, Analysis and documentation of current and future workforce need of industry in total and sector wise, and other possible areas)

##### Coordination Unit (at Province level)

(Provincial Federation, Confederation, Association and Sector specific associations composed Board/Committee/Sector Committees) equipped by appropriate number of Human Resources)

**Main functions:** Coordination and Compilation of data and information collected from Local level (this will be mainly done through a system with minimum human intervention), Based on available data and information, province level board/committee will provide policy inputs to province government and work with TVE body at province level to fulfill demand of industries)

##### District level Unit

(Local Chambers/chapters, Association and Sector specific associations composed Board/Committee/Sector Committees) equipped by pool of technically competent and dedicated HR having understanding of TVET, LMIS, NVQ Level and research)

**Main functions:** Interact and coordination with industries on a regular basis, Collect data and information on workforce need of Industries through variety of consultation, coordination, interaction, conducting studies, survey on a regular basis having confidence and trust of the industries; Process technically up to date and reliable data and information on workforce need in the LMIS

Support industries in its HR planning, skill development through apprenticeship programs, re-skilling or skills upgradation of existing workforce of industries or adopting other appropriate modality of skills development as per the need of the industries etc.

Also, coordinates and works with local level government for needful partnership in skills development and employment facilitation programs and projects. implementation)



**INDUSTRIES**

(All national, provincial, local levels located federation, confederation, associations and sector specific associations will be vertically and horizontally integrated)



## Annex 20: Returnee migrant workers nature of work in destination countries<sup>16</sup>

Annex 20a: Returnee migrant workers (%) according to nature (type) of work performed during lifetime employment at foreign countries among those who worked for more than one kind of

Nature of work	Gender		Province							Total	
	M	W	Province-	Province-	Bagmat	Gandak	Lumbin	Karnal	Sudurpaschi		
Factory work (prod. and manufac.)	50.9	22.2	52.5	35.4	37.0	30.9	80.9	43.9	38.9	49.8	
Construction labour	41.3	16.7	54.9	53.8	13.0	16.4	55.1	19.5	22.2	40.3	
General labour	32.6	22.2	23.8	43.1	33.3	9.1	62.9	7.3	22.2	32.2	
General cleaning labour	10.1	5.6	4.1	23.1	1.9	3.6	16.9	12.2	5.6	9.9	
Agriculture (farm, plantation, livestock)	4.9	5.6	5.7	9.2	0.0	7.3	1.1	2.4	16.7	5.0	
Mason, carpenter, painter	8.7	0.0	6.6	7.7	5.6	9.1	4.5	29.3	0.0	8.3	
Welder, scaffold	7.5	0.0	4.1	4.6	5.6	20.0	4.5	12.2	5.6	7.2	
Electrician	4.9	0.0	7.4	0.0	3.7	9.1	2.2	2.4	11.1	4.7	
Shop worker	6.1	22.2	5.7	9.2	7.4	12.7	3.4	4.9	5.6	6.8	
Security guard	14.6	16.7	11.5	13.8	20.4	25.5	9.0	14.6	16.7	14.6	
Hotel/restaurant worker	22.3	55.6	22.1	10.8	40.7	27.3	12.4	46.3	22.2	23.6	
Driving vehicles	8.5	0.0	10.7	1.5	18.5	10.9	4.5	4.9	0.0	8.1	
Housekeeping	8.7	50.0	11.5	1.5	40.7	3.6	5.6	2.4	5.6	10.4	
Engineering works	4.0	5.6	4.1	3.1	3.7	3.6	1.1	9.8	11.1	4.1	
Other professional works	7.5	0.0	2.5	3.1	9.3	21.8	6.7	9.8	0.0	7.2	
Other works	8.2	11.1	0.0	24.6	5.6	10.9	0.0	0.0	16.7	8.3	
	Total (n)	426	18	122	65	54	55	89	41	18	444

Note: M=men, W=women; other works include teaching and research, AC fitting/maintenance, machinery work of vehicles/ship and other unspecified; and percentages presented in the table are obtained from the multiple responses to the question.

Annex 20b: Returnee migrant workers (%) according to type of work performed last time at the country of last destination of employment

Nature of work	Gender		Province							Total
	M	W	Province-	Province-	Bagmat	Gandak	Lumbin	Karnal	Sudurpaschi	
Factory work (prod. and manufac.)	19.1	16.7	16.8	14.8	8.6	8.4	45.4	18.5	19.5	18.9
Construction labour	12.5	1.2	20.7	19.4	4.3	4.8	6.3	9.6	11.7	11.9
General labour	6.8	6.0	9.6	9.7	9.0	3.0	3.4	1.4	7.1	6.7
General cleaning labour	3.8	7.1	3.2	7.6	1.9	4.2	2.4	3.4	5.2	4.0
Agriculture (farm, plantation, livestock)	1.4	0.0	1.4	0.4	1.0	1.2	1.0	0.7	3.9	1.3
Mason, carpenter, painter	3.0	0.0	2.1	7.6	0.5	3.0	2.9	13.7	1.9	2.8
Welder, scaffold	3.1	0.0	0.4	3.4	1.0	11.4	1.4	2.7	2.6	2.9
Electrician	2.5	2.4	4.3	4.2	1.0	1.2	1.4	0.7	3.2	2.5
Shop worker	4.5	4.8	2.5	4.6	9.5	4.8	3.4	0.0	6.5	4.5
Security guard	8.9	2.4	8.6	5.5	8.1	13.3	6.3	12.3	7.8	8.5
Hotel/restaurant worker	17.3	26.2	14.6	6.8	30.5	18.7	13.0	24.7	22.7	17.9
Driving vehicles	6.0	0.0	7.9	3.8	11.4	6.0	3.9	2.1	1.9	5.6
Housekeeping	1.4	22.6	3.2	0.4	8.6	1.8	2.4	0.0	0.6	2.6
Engineering works	3.2	1.2	3.2	2.1	1.0	1.8	2.9	8.2	3.2	3.0
Other professional works	3.2	6.0	0.4	4.2	2.9	11.4	3.9	2.1	0.0	3.4
Other works	2.0	3.6	1.1	5.5	1.0	4.8	0.0	0.0	1.9	2.1
Total (n)	1 316	84	280	237	210	166	207	146	154	1 400

Note: M=men, W=women; other works include teaching and research and other unspecified.

**Annex 21: Potential areas of occupations for study/ learning**

**Annex 21a: Sector: Agriculture; Forestry and Fishing<sup>17</sup>**

S. N	Occupation	S. N	Occupation
1	Agriculture Engineer	35	Goat Keeper
2	Argo processor	36	Hatchery machine operator
3	Agriculture equipment operator	37	Hatchery technicians
4	Agriculture Technician	38	Herbal Farm Worker
5	Agriculture workers	39	Herbal producer
6	Agronomist	40	Herbal Technician
7	Apiculture Technician	41	Junior Technical Assistant (Dairy)
8	Assistant Slaughter Technician	42	JTA (Vegetable)
9	Banana Farming Technician	43	Khoto Collector
10	Bee Keeper	44	Livestock Technician
11	Cardamom Processor	45	Mushroom Grower
12	Cash crop producer	46	Nursery Assistant
13	Cattle Raiser	47	Off Season Vegetable Producer
14	Coffee Plantation Worker	48	Orchard Management Assistant
15	Coffee Processor	49	Packaging technician
16	Coffee Technician	50	Plantation technicians
17	Community Agriculture Assistant	51	Post-Harvest Technician (Fruits)
18	Community Forestry Facilitator	52	Post-Harvest Technician (Veg)
19	Community Livestock Assistant	53	Poultry supervisor
20	Compost producer	54	Poultry Technician
21	Conservation scientist	55	Programmer (hatchery)
22	Dairy and Sweets Technician	56	Riverbed Farming Technical Assistant
23	Experienced Leader Farmer	57	Seed Producer (Vegetable)
24	Farm Manager	58	Seed production (Crops)
25	Feed machine operator	59	Tea Plantation Worker
26	Fish harvester	60	Tea Processor
27	Fishery technicians	61	Tea technician
28	Floriculturist	62	Veterinary
29	Flower Decorator	63	veterinary expert (doctor)
30	Forest and conservation technician	64	Veterinary Junior Technical Assistant
31	Forester	65	Village Animal Health Worker
32	Fruit processor	66	Water resource engineer

<sup>17</sup> Lamichhanre, R., Ghimire, G., Chalise, B. and Koirala, S. 2021. Economic Sub-Sector and Labor Market Analysis of Nepal. Kathmandu: MoEST/SDC/ MDSI.

33	Gardener	67	Wildlife Technician
34	Garden designer	68	Zookeeper

Sector: Construction

S. N	Occupation	S.N	Occupation
1	Asphalt Technician	28	Hand Tube Well Technician
2	Backhoe Loader Operator	29	Heavy Equipment Electrician
3	Bar Bender	30	Heavy Equipment Mechanic
4	Batching Plant Operator	31	Heavy Equipment Operator
5	Bitumen Distribute Operator	32	Mason
6	Bitumen Surface Road Worker	33	Micro-hydro installer
7	Blasterer	34	Motor Grader Operator
8	Brick Layer Mason	35	Paver Operator
9	Brick Molder	36	Pipe Fitter
10	Brick Pathera	37	Plasterer
11	Building Painter	38	Plumber
12	Bulldozer Operator	39	Rat Trap Mason
13	Carpentry and Interior Decorator	40	Rig machine operator
14	Chips-Marble Polisher	41	Road Mason
15	Concrete Layer	42	Road Roller Operator
16	Construction Carpenter	43	Scaffolder (Bamboo)
17	Construction Worker	44	Scaffolder (Tubular)
18	Crane Operator	45	Short Crating Machine Operator
19	Decorative Concrete Product Producer	46	Shuttering Carpenter
20	Drafting Technician	47	Solar electrician
21	Driller	48	Steel fixture
22	Electrician	49	Stone Layer Mason
23	Excavator Operator	50	Surveyor
24	Furniture Maker	51	Tile Marble fixer
25	Gabion weaver	52	Wheel Loader Operator
26	Grader Operator	53	Wooden Furniture Polisher/ Finisher
27	Gypsum installer		

## Sector: Mining &amp; Quarrying

S. N	Occupation	S. N	Occupation
1	Auger Operator	13	Metallurgy Overseer
2	Crane Operator	14	Mine Inspector
3	Cutting and Drilling Machine Operator	15	Mine Supervisor
4	Driller	16	Mine Surveyor
5	Excavator	17	Mineral Processor
6	Field Assistant	18	Mining Engineer
7	Geologists	19	Mining Overseer
8	Ground Water Engineer	20	Plant Setter
9	Heavy Equipment Operator	21	Quarry Inspector
10	Lab Assistant/Technicians for mineralogy and soil test	22	Remote Sensing Expert
11	Mechanical Driller	23	Rigger
12	Metallurgy Engineer	24	Sub Overseer

## Sector: Manufacturing

S. N	Occupation	S. N	Occupation
1	A/C technician	36	Manager
2	Accountant	37	Mechanical Engineer
3	Aromatic and Medical Plant Processing Technician	38	Mechatronics Technician (Mechanical and electronics)
4	Aluminum Fabricators	39	Melter
5	Assistant Leather Goods Technician	40	Metal Sculpture
6	Assistant Manager (Production)	41	Metallurgist
7	Bamboo Furniture Maker and Artisan	42	Milling Machine operator
8	Bamboo Handicraft Maker	43	Mithila Artist
9	Bamboo Stick Maker	44	Nepali Hand Made Paper Maker
10	Banana Fiber handicraft Producer	45	Packager
11	Binder	46	Paper Cutter
12	Boiler Operator	47	Paubha Artist
13	Cane and Bamboo Product Producer	48	Plasma Cutter
14	Chemist	49	PLC Technician
15	CNC Machine Repairer	50	Problem diagnostic Expert
16	Cold Storage Technician	51	Production Officer
17	CNC Operator	52	Production Supervisor
18	Cutting master	53	Project Coordinator
19	Designer	54	Project Manager
20	Electro-mechanical Engineer	55	Pulverization Technician
S. N	Occupation	S. N	Occupation

21	Engineer	56	Quality Controller
22	Fabricator	57	Repousse / Embosser
23	Finishing	58	Senior coordinator
24	Fire Fighting Technician (mid-level)	59	Shoe Maker
25	Fire pump assembler	60	Sliding Machine Operator
26	Food Engineer	61	Steam Drier Operator
27	Furniture Maker	62	Stick Incense Roller
28	Industrial electrician	63	Stitcher
29	Industrial Heavy Motor Re-winder	64	Tailor
30	Knitter	65	Thangku Artist
31	Laser Welding Machine Operator	66	Tharu Handicraft Maker
32	Lathe Operator	67	Upper Shoe Stitcher
33	Machine Fitter	68	Weaver
34	Machine Operator	69	Welder
35	Machine Trouble shooter	70	Wood Carver

Sector: Accommodation & Food Services

S. N	Occupation	S.N	Occupation
1	Baker	19	Indian Cuisine Cook
2	Barista	20	Laundry Technicians
3	Bartender	21	Marketing Officer
4	Bell Boy	22	Mountain Guide
5	Camp Manager	23	Nature Guide
6	Care Giver	24	Nepali Cuisine Cook
7	Chef	25	Religious Guide
8	Chinese Cuisine Cook	26	Security Guard
9	Commis (III, II, I)	27	Small Hotel & Lodge Assistant
10	Continental Cook	28	Sweets & Snacks Maker
11	Dishwasher	29	Tour Officer
12	Front Desk Officer	30	Tourists Driver
13	Gambling Inspectors	31	Travel Desk Manager
14	Homestay Operator	32	Travel Manager
15	Housekeeping Cleaner	33	Trekking Cook
16	HR Officer	34	Trekking Guide
17	ICT Operators	35	Trekking Officer
18	Information & PR Supervisor	36	Waiter/Waitress

## Sector: Wholesale and retail trade; repair of motor vehicles and motorcycles

S. N	Occupation	S. N	Occupation
1	Assistant Manager	27	Light Vehicle Electrical Mechanic
2	Auto Electrician	28	Light Vehicle Engine Mechanic
3	Auto Mechanic	29	Light Vehicle Service Mechanic
4	Body Maker	30	Light Vehicle Steering and Suspension Mechanic
5	Body Mechanic	31	Light Vehicle Transmission Mechanic
6	Car Mechanic	32	Loader
7	Cashier/Accountant	33	Machine Operator
8	Chief Executive Officer	34	Middle & Heavy Vehicle Service Mechanic
9	Charging Station Technician	35	Motorcycle Mechanic
10	Chassis and Springs Maker	36	Packager
11	Cleaner	37	Auto Painting Technician
12	Denter Painter	38	Pump Set Operator & Repair Technician
13	Deputy Manager	39	Receptionist
14	Dispatcher	40	Refrigeration Technician
15	Drivers (with additional soft skills),	41	Sales Person
16	Engine Fitter	42	Security Guard
17	Enterprise development facilitator	43	Electric Vehicle Mechanic
18	Enterprise Development officer	44	Service Advisor
19	Floor In charge	45	Spare Parts Sales Person
20	Fuel Injector	46	Store Keeper
21	Fuel pump Mechanic	47	Supervisor
22	Heavy Vehicle Electrical Mechanic	48	Tractor Mechanic
23	Heavy Vehicle Mechanic	49	Tire repairer
24	Housekeeper	50	Vehicle servicing
25	Junior Auto Mechanic	51	Vehicle Welder
26	Light Vehicle Brake Mechanic		

## Sector: Information and communication

S. N	Occupations	S. N	Occupations
1	Cable installer	16	LCD/LED Television Repair Technician
2	CC Camera installer	17	Manager

3	Communication center operator	18	Mobile Phone Repair Technician
4	Computer assistant	19	News reader
5	Computer Hardware Technician	20	Press mechanic
6	Computer Operator	21	Radio Repair Technician
7	Computer Programmer	22	Software developer
8	Computer Repair & Maintenance Technician	23	Software technician
9	Computer service technician	24	Systems analysts
10	Computer system designer	25	Tape Recorder Repair Technician
11	Cyber security specialist	26	Telecom Lineman
12	Digital press operator	27	Telecom Technical Helper
13	E. Book designer	28	Telecom Technician
14	Electronics fitter	29	Web and multimedia developer
15	FM Radio Technical Assistant	30	Wireless TV and network installer

Sector: Transport and Storage

S.N	Occupations
1	Accountant
2	Cargo Supervisor
3	Cashier
4	Dispatcher
5	Domestic and International Cargo Manager
6	Driver
7	Labor
8	Loader/Unloader
9	Office Secretary
10	Online Tracker
11	Packager
12	Store keeper
13	Transportation Supervisor



Sector: Electricity, gas, steam, and air conditioning supply

S. N	Occupation	S. N	Occupation
1	Armature Rewinding	17	Geotechnical surveyor
2	Cable Jointer	18	Industrial Electrician
3	Civil Engineer	19	Lighting Arrester
4	Civil Surveyor	20	Linesman
5	CNC based machine operator	21	Machine Operator
6	Designer	22	Mason
7	Electrical Appliances Repairer	23	Mechanical Engineer
8	Electrical Engineer	24	Meter Reader
9	Electrical Lineman	25	Micro Hydro Assistant
10	Electrical Motor Repairer/Rewinder	26	PLC Controller
11	Electrical Safety Technician	27	Steel Fixer
12	Electrician	28	Supervisor
13	Electronics Engineer	29	Switch Board Operator
14	Energy Auditor	30	TBM machine Operator
15	Forewarn Technician	31	Transformer Repair Technician
16	Geologist		

Sector: Water supply; sewerage, waste management

S. N	Occupations
1	Chemist
2	Driver
3	Engineer (Civil, Mechanical and Electro-Mechanical)
4	Environmental engineer
5	Foreman/Sub-Overseer
6	Heavy Equipment Operator
7	Labor
8	Machine Operator
9	Plumber
10	Repair and Maintenance Technician
11	Segregation Plant Operator
12	Waste/Garbage Collector
13	Water Pump Operator
14	Water Quality Technician

**Annex 21b: Highly demanded area of the Technical and Vocational Human Resources<sup>18</sup>**

Sector of Employment	Types of Workers Needed
Agriculture and Forestry	<ul style="list-style-type: none"> <li>- Agricultural farm technicians</li> <li>- Livestock farm technicians</li> <li>- Fishery technicians</li> <li>- Dairy technicians</li> <li>- Land scape and gardener</li> <li>- Fruits and vegetable processors</li> </ul>
Construction	<ul style="list-style-type: none"> <li>- Civil/structural engineering; Surveyors and geometrics</li> <li>- Electricians, electrical overseers</li> <li>- Heavy equipment operation and maintenance (Crawler Excavator, Motor Grader, Road Roller, Asphalt Mixing Plant, Wheel Loader).</li> <li>- Batching plant operator</li> <li>- Plumbing and sanitary ware</li> </ul>
Tourism/Hospitality	<ul style="list-style-type: none"> <li>- Waiters</li> <li>- Housekeeping</li> <li>- Innkeepers</li> <li>- Chefs/cooks</li> <li>- Front office management staff</li> <li>- Tourist guide</li> <li>- Sales/marketing</li> <li>- Engineers</li> <li>- Security guards</li> </ul>
Health	<ul style="list-style-type: none"> <li>- Laboratory technicians</li> <li>- Nurses</li> </ul>
Others	<ul style="list-style-type: none"> <li>- Salespersons</li> </ul>

Source: Central department of economics (CEDECON), Tribuvan University/CTEVT. 2022. Labour market Analysis for Human Resources Projection., Bhaktapur:CTEVT.

<sup>18</sup> Central Department of Economics (CEDECON), TU. Labour Market Analysis for Human Resource Projection. Bhaktapur: CTEVT SAKCHYAMTA Project

**Annex 21c: Sectors of potential innovation and employment areas**

**Sectors of potential innovation and employment areas**

1. Communication Technology
2. Construction Technology
3. Product Technology
4. Medical Technology
5. Architecture Technology
6. Business Technology
7. Educational Technology
8. Information Technology
9. Space Technology
10. Artificial Intelligence Technology
11. Robot Technology
12. Agriculture Technology
13. Bio-Technology
14. Forestry & Environment Technology
15. Tunnel Boring Technology
16. Rail Way Technology
17. Mining Technology
18. Hydropower Technology
19. Bio-Gas Technology
20. Solar power Technology
21. Air pressure Technology
22. Aeronautic Technology
23. Ship Technology

**Annex 22: Faculty applied for NOC (17.09.2077 - 06.12.2078)**

Faculty	NOC Approved
Hospitality	4762
Social Worker and community services	1111
Health	4526
Engineering	11547
Vocational Training	195
TVET relevant	22141
Other scient and technology relevant	5413
Others	42417
Total	69971

Source: MoEST 2079

### **Annex 23: Formation of NVQS Steering/ Coordination Committee (NSC)<sup>19</sup>**

- a. Prime Minister – Chair
- b. Minister, MoEST
- c. Vice Chancellor (VC) - 2 members on rotation basis representing all the universities
- d. Vice Chair, CTEVT
- e. Chair, Public Service Commission
- f. Secretaries from MoEST, Ministry of Labor, Employment and Social Security (MoLESS), National Planning Commission (NPC), Public Service Commission (PSC), Ministry of Finance (MoF), Ministry of Industry, Commerce and Supplies (MoICS), Ministry of Culture, Tourism and Civil Aviation (MoCTCA), Ministry of Agriculture and Livestock Development (MoALD)
- g. Secretaries from Ministry of Social Development (MoSD) – 2 members on rotation basis representing all provinces
- h. Director General, Center for Education and Human Resources Development (CEHRD)
- i. Chair, business and industry con/federations - 3 members
- j. CTEVT Member-Secretary – Member Secretary

#### **Roles and Responsibilities of the NSC**

Broad roles and responsibilities of the NSC shall be as follows:

- a. Review, approve and forward all the legislative documents submitted by (authorized body of NVQS) /CTEVT to Cabinet for further processes.
- b. Provide overall guidance and supervision of the NVQS operationalization to the institutions as appropriate.
- c. As a highest body with all the issues in their legal control, provide the leadership to ensure that all stakeholders align the programs being offered by institutions/bodies under their aegis to the NVQS.
- d. Notify the approval and operationalization of NVQS through Nepal Government Gazette.
- e. Ensure legislation and policy level coordination among NVQS related bodies at the highest level.
- f. Ensure necessary sustainable funding – from public or external sources - for NVQS operationalization

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<sup>19</sup> Pradhan, H. 2020. Roadmap on Development and Operationalization of NVQS in Nepal. Bhaktapur: CTEVT/NSTB-Swisscontact, NVQS Project

## **Annex 24: Formation of NVQS Management Committee (NMC)<sup>20</sup>**

1	CTEVT Member-Secretary	Chair
2	Joint Secretaries – MoEST, MoLESS, NPC, Public Service Commission (PSC), Ministry of Industry, Commerce and Supplies (MOICS), MoCTCA, Agriculture	Member
3	Deans of relevant/ technical Universities – on rotation basis representing all relevant universities	3 members
4	Executive Director/ Chief Executive Director MoSD TVET authorities - on rotation basis representing all provinces	3 members
5	Director General, CEHRD	Member
6	CTEVT Directors – Research, curriculum, technical, Training Institute for Technical Instruction (TITI)	Members
7	Chairs, Sector Skills Councils (SSCs) - on rotation basis representing all the Sector Skills Council (SSCs)/product associations/ business and industry	5 members
8	National Skills Testing Board (NSTB) Director/ Executive Director, NMC	Member-secretary

### **Roles and Responsibilities of NMC**

As described below, the NMC shall assume wide range of responsibilities ranging from legislation to NVQS management.

#### **Legislative and Policy**

- a. Prepare and submit all the NVQS related legislative documents to the NSC.
- a. Provide overall policy direction.
- b. Ensure the NVQS, implementation structure and objectives are correctly structured, managed and targets are aligned with currency and are realized on agreed schedule.
- c. Operationalize the decisions of Federal Inter Agency High Level Coordination Committee (F-IAHCC) with regards to qualifications' equivalency as provisioned in Chapter 5.7.1.

#### **Technical**

- a. Define the sectors and subsectors, based on the National Standards for Occupation/National Industrial Classification or any other nationally accepted classification system.
- b. Identify existing and upcoming occupations
- c. Detail and approve level descriptors
- d. Align and approve the current NSTB levels into NVQF levels
- e. Approve all matters requiring cross-sectoral approach, such as modular, credit accumulation and transfer, recognition of non-formal learning, apprenticeship, online and distance learning, lateral mobility and bridge courses.
- f. Approve and notify the qualification packages – standards, curriculum and teaching learning materials (TLM) - prepared by the SSCs. Including job roles that exist across various sectors.
- g. Collaborate with CEHRD for extending/ adjusting TVET in Levels 1 – 3 and facilitating lifelong learning through recognition of prior learning (RPL) and necessary bridging inputs.
- h. Approve the accreditation norms developed in collaboration with the relevant SSCs for training providers/ Knowledge and skills (KSP).

<sup>20</sup> Pradhan, H. 2020. Roadmap on Development and Operationalization of NVQS in Nepal. Bhaktapur: CTEVT/NSTB-Swisscontact, NVQS Project

- i. Develop/approve the accreditation norms for QABs/certification agencies – Office of Controller of Examination, National Examination Board (NEB) and National Skills Testing Board (NSTB) and implementing bodies.
- j. Accredite QABs and implementing institutions.
- k. Coordinate and align national qualifications with international qualifications frameworks to allow international mobility.
- l. Addressing all transition issues, including developing suitable mechanism for recognizing and aligning to the NVQS all qualifications.
- m. Map all existing certificate, diploma, degree and other courses available in the sector, and identify gaps if any.
- n. Determine whether progression from one level to another should be allowed for a specific course/discipline
- o. Determine bridging inputs necessary for vertical progression within and across the education streams
- p. Map all the progression pathways so determined and agreed, and decide how the progression will take place – how much credit would be allowed for movement from one level to the next and from one education pathway to another, and how such progression can be facilitated
- q. Determine progression links between courses and certifications that are granted by regulatory and/or professional bodies, and those that are currently unregulated
- r. Identify and specify bridge courses and processes if any, that would be needed to permit progression from one level to another
- s. Manage and coordinate management of NVQ Registry.
- t. Develop the qualification packages (QPs) targeting competency based learning and assessment (CBL&A)
- u. Facilitate chief master trainers/ instructors' and master assessors' training, and
- v. Ensure, as applicable, inter provincial cross fertilization through provincial master trainers or assessors training.

### **Planning and Management**

- a. Facilitate strengthening/establishing SSCs.
- b. Prescribe guidelines for ensuring that implementing agencies, including knowledge and skills (training) providers, address the special needs of women and disadvantaged population including persons with disabilities, minorities/ depleting populations.
- c. Review and resolve any issues/disputes among Ministries/ Departments/ Regulatory Bodies regarding alignment of courses to NVQF, credit transfer, etc.
- b. Continue to steer and strengthen the NSTB which is envisaged to function as Federal NVQ Support Unit (F-NSU). Hence, establish and operationalize the F-NSU as NVQS focal unit.
- c. Operationalize the NVQF to ensure that quality and standards meet the industry/employment sector requirements.
- d. Facilitate capacity building of all stakeholders.
- e. Oversee and customize the existing professional certifying bodies – Office of the Controller of Examinations and NSTB under CTEVT and NEB.
- f. Ensure that the NVQF serves as a quality assurance framework.
- g. Decide date to phase out the current CTEVT standards and curricula.
- h. Fund and/or facilitate funding to the programs/ courses that follow the NMC approved QPs.
- i. Manage capacity development program of all relevant staff and stakeholders.

**Coordination and Social Marketing**

- a. Ensure policy and technical level coordination among NVQS related bodies at federal and provincial levels and with local governments, as appropriate.
- b. Ensure effective social marketing of and policy dialogue around NVQS.



## TVE Reform Strategic Plan (TRSP) 2080-2089

<b>VISION</b>	<b>Competitive and entrepreneurial workforce for 'Transformative and Prosperous Nepal'</b>					
<b>MISSION</b>	TVE system reformed for preparing Competitive and entrepreneurial workforce making it a 'garikhane sikhya' through the TVE Principles-based TVE Acts and policy instruments.					
<b>GOAL</b>	Prepare globally competitive industry-ready and entrepreneurial workforce with capacity to contribute to "Make/made in Nepal" initiative with ensured recognition and seamless further educational opportunity at all governance levels.					
<b>Area</b>	<b>Access, Equity, and Expansion</b>	<b>Quality and Efficiency</b>	<b>Results and Relevance</b>	<b>Integration</b>	<b>Management</b>	<b>Governance, Coordination, and Financing</b>
<b>OBJECTIVES AND STRATEGIES</b>	<p><u>Expand TVE programs ensuring access and equity, and for innovation</u></p> <ul style="list-style-type: none"> <li>Ensuring balance of demand-based industry/ economic sectors responsive TVE programs among federal, provincial and local level by 2084</li> <li>Expanding various TVE programs for existing workers at farm and off-farm (skilling, reskilling and up-skilling) sectors by 2089</li> <li>Up-scaling skilling opportunity (skilling, reskilling and up-skilling) for migrants and returnees by 2089</li> <li>Enhancing geographical, gender and social inclusion through various scholarship programs by 2089</li> <li>Expanding/ boosting expansion of TVE institutions/ programs as per Geographical and demographical distribution by 2084</li> <li>Scaling up of access and expansion in Technical and Vocational Education by 2089</li> <li>Establishing multi entry and multi exit education structure for enhancing access to include work needing learners for 'flexible learning' and 'Earning while Learning' opportunities by 2089</li> <li>Establishing hostel facility for needy people by 2084</li> <li>Introducing multi shift learning opportunity for 'flexible learning' opportunity by 2089</li> <li>Establishing hostel facility for needy people by 2084</li> <li>Introducing multi shift instructional learning environment (ILE) for 'flexible learning' opportunity by 2089.</li> </ul>	<p><u>Improve Quality (Instructors, standards and curricula, Instructors' preparation, physical infrastructure and examination/ assessment) and Efficiency of TVE services</u></p> <ul style="list-style-type: none"> <li>Operationalizing the Accreditation system and facilitating its recognition in international level as well by 2089</li> <li>Ensuring the number of instructors as per curriculum requirement by 2089</li> <li>Ensuring quality instructional staff in place and institutionalizing their capacity development opportunities by 2089.</li> <li>Reducing instructors' turnover by 2083.</li> <li>Revising entry criteria and bridging inputs, and share of science and mathematics in learning resources by 2089</li> <li>Improving laboratories by 2089.</li> <li>Widening workplace based practical training by 2089.</li> <li>Enhance cross-fertilization in ILE through ICT based distance/virtual learning and e-learning resources by 2089.</li> <li>Improving internal efficiency by 2089.</li> <li>Availing technical M&amp;E system by 2089.</li> <li>Enhancing assessment system by 2089.</li> <li>Strengthening institutional capacity of assessment/ examination system (ICEs) by 2089.</li> <li>Managing accredited skill test centres by 2089.</li> </ul>	<p><u>Enhance outputs/ outcomes and relevance of TVE services</u></p> <ul style="list-style-type: none"> <li>Continuing publication of TVE sector research reports by 2089.</li> <li>Developing NVQF based learning resources to facilitate 'flexible learning' and 'Learning while earning' opportunities by including enterprise development components to contribute to 'Make in Nepal' initiative by 2089.</li> <li>Increasing number of graduates by 2089.</li> <li>Enhancing utilization of TVE outputs (outcomes) and relevance by 2089.</li> <li>Increasing BIAs participants in TVE processes for relevance by 2082.</li> <li>Increasing number of SSCs for relevance by 2089.</li> </ul>	<p><u>Ensure integration and recognition of TVE qualifications</u></p> <ul style="list-style-type: none"> <li>Accelerating NTQS implementation process by 2083.</li> <li>Restructuring TVE qualifications by 2084.</li> <li>Ensuring recognition of TVE qualifications by 2089.</li> <li>Integrating competencies learned in in/non formal sector by 2089.</li> <li>Integrating cross-learning in different sectors and provinces by 2089.</li> <li>Accelerating workplace-based training / intern system in public as well as private sectors including households by 2089.</li> </ul>	<p><u>Develop TVE Management System (HR development, school management, Knowledge Management and financing)</u></p> <ul style="list-style-type: none"> <li>Enhancing institutional including HR capacity covering federal, provincial and local level TVE authorities and supporting cross learning and earning by 2089.</li> <li>Supporting learners through institutionalised Learners' Support System (LSS) (school management) by 2089.</li> <li>Strengthening HR capacity for school management by 2089.</li> <li>Ensuring required finance for quality delivery by 2089.</li> <li>Strengthening school capacity to establish School Fund by 2089</li> <li>Facilitating BIAs for availing financial incentives to students during OIT by 2089.</li> <li>Increasing knowledge exchange events (knowledge management) by 2089.</li> <li>Enhancing TVE research management capacity by 2089.</li> <li>Operationalizing Communication strategy by 2089.</li> <li>Enhancing school level facilities by 2084.</li> </ul>	<p><u>Improve governance and Coordination, and Financing</u></p> <ul style="list-style-type: none"> <li>Restructuring of current TVE system through governance instruments at federal and provincial levels by 2083</li> <li>Segregating regulatory and implementation responsibilities through new federal TVE Act by 2089</li> <li>Reforming TVE policies in the context of new federal and provincial TVE Acts by 2089</li> <li>Enhancing coordination among and within federal, provincial and local levels by 2089</li> <li>Enhancing TVE sector financing by 2089</li> <li>Putting technical backstopping system in place in collaboration with federal, provincial and local levels by 2089</li> </ul>