Abstract
Reduction in enrolment is a growing concern in Nepal TVET which could have been caused by, inter alia, lack of career path for the graduates and therefore, has been the focus of this paper. Nepal’s long term TVET programs - under general secondary education that starts from Grade 9 and runs through Grade 12 and those under CTEVT - end at Diploma level unless some get exceptional enrolment opportunity at tertiary level. Therefore, structural reform is envisaged to help mitigate the problem in context by introducing TVET from Grade six as ‘elementary TVET’ followed by Level 3 (Grades 9 and 10) and as next step, Level 4 (Diploma) with three years learning followed by Level 5 (Advance Diploma). These reforms are envisaged to be based on NVQS operationalization. This paper, leaving some questions for readers, also suggests redefining TVET definition to widen sector coverage and changing the term ‘TVET’ itself.

1. Background and the Problem
Council for Technical Education and Vocational Training (CTEVT) has been supporting technical and vocational education and training (TVET) system through development of various apparatus while also preparing a competent workforce necessary for domestic and world employment market. Along with critical achievements made so far, Nepal’s TVET system also suffers from various problems, issues and challenges. This paper however, focuses on insufficient enrolment and drop out of students from TVET programs as these are common problems in Nepal (Figure 1'). Hence, this paper has made an effort to dig out major causes behind this problem and propose improvement measures through TVET/ educational structural changes.

2. Objective of Reform Conceptualization
The objective of this paper is to initiate a professional advocacy for structural changes

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1 Calculations based on CTEVT enrolment data 2013/14 to 2018/19.
in TVET/ education system that could potentially contribute to mitigate some of the problems that are responsible for the current situation.

3. Methodology
This paper draws heavily from authors’ on-going work on their upcoming book entitled ‘Progress and Pitfalls in Nepal’s TVET’ and report entitled ‘Roadmap on Development and Operationalization of National Vocational Qualifications System (NVQS) in Nepal’. Both these resources, in turn, are massively benefited from large number of international research resources including published articles.

4. Cause behind the problem
Graduates of general education have a clear career path in both academic and employment world and their certificates are normally well recognized in and outside the country. This is however, not the case with TVET graduates. TVET is often considered as an option when a student lacks other educational opportunity or when one needs to make earning earliest possible. The word ‘training’ attached to ‘TVET’ could be another problem as being incognizant of the fact that education also mean ‘training’.

2 According to Oxford English Reference Dictionary, page 484, Educate – mean to give intellectual, moral and social instructions to; provide education for; train or instruct for particular purpose.
(Pearsall and Trumble 2008), people have tendency to consider it as ‘second option’ and ignore its academic potential as has been growingly practiced in many countries now. Amidst this challenge, rather than struggling for changing the ‘academic biased mindset’ and making effort for establishing the fact that the ultimate goal of TVET is to develop ‘competency’, this context has further been made complicated by TVET professionals. By adding ‘skills development’ after the term ‘TVET’ and it is now called as ‘technical and vocational education and training and skills development’ (TVET&SD). This could miss lead the overall concept and ground reality of the sector. It may contribute to further worsen the already existing distaste among students and parents on TVET and strengthen the ‘second option syndrome’, eventually adversely affecting the possibility of TVET being their spontaneous choice. Again there could be several reasons behind this situation but this paper focuses only on the structural failure with the current education system. Keeping aside the short term training, which is yet to be converted into a credit based modular format and its potential to be one of the modules of a long term course, the current TVET system appears to be stand-alone subsystem as presented in Figure 2 (Pradhan 2019).

Another related cause for the above problem could be narrow understanding in TVET. In Nepal, basically engineering, health and agriculture sectors are considered as TVET. This understanding ignores many areas considered as TVET, for instance fashion design in India.

There are two practices in Nepal’s long
term TVET programs. The first is TVET stream under general secondary education that starts from Grade 9 and runs through Grade 12, known as ‘TVET stream’. This stream is viewed as academic course. There is lack of data but by far most of the TVET stream graduates are believed to have moved to higher education and therefore, is considered as opportunity for academic bachelor level technical education under university. The second path is CTEVT’s pre-diploma courses (erstwhile, technical school leaving certificate- TSLC). The pre-Diploma graduates have opportunity to move to Diploma program and then unless they have excellent performance or are able to invest huge amount of resources as tuition fee, their education may come to a halt after this level. There is absence of advance Diploma called post secondary-non tertiary courses in Nepal. Hence, they have to compete for limited opportunity at bachelor’s program which is highly challenging. On the other hand, due mainly to the quality issues, graduates even after three years of rigorous learning, are considered to remain from being industry-ready.

In summary, as conveyed by Figure 3, the current TVET system has limitation to offer seamless career path for graduates and is criticized of being unable to ensure adequate employment outcomes. Structural changes in current education/TVET system is considered as one option to address these issues and hence, are discussed below.

3. Proposed structural changes

A well designed and implemented NVQS could help TVET sector reform which eventually could contribute to the whole education system. As such, NVQS has capacity to reform the TVET sector by putting a clear target on educational and employment outcomes. However, such a
system needs to follow the standard NVQS provisions. Based on our national context and learning from efforts made in large number of countries to address similar problem, reform in Nepal’s TVET and education system is conceptualized and is explained below with help from Figure 4 (Pradhan 2020).

c. The real TVET could start from Grade 9. With competence and credit based modular curricula, graduates could get a certificate after completion of each year of learning but the NVQ Level 3 qualification will be awarded only after completion of 2 years or duration specified by NVQS.

d. The current Pre-Diploma graduates under CTEVT could be converted into Level 3 with standards, curriculum and duration specified by NVQS which probably could be for 2 years’ duration. This provision will remove the current pre-Diploma program which even after vocational education already exists at this level, it simply needs a review and alignment with NVQS to make it as preparation for next level of TVET.

Figure 4: Reforming Nepal TVET & Education System

a. School education after Grade 6 could be bifurcated into two streams: general education and TVET. While general education stream could continue from Grade 6 by including information and general career guidance relevant to TVET in all levels school education and beyond. The another wing of Grade 6 could be separated as TVET stream and continue up to PhD as envisaged by the Cabinet approved NQF/NVQF.

b. TVET between Grade 6 and 8 could be only of ‘elementary nature’. As
18 months of learning, currently the learner does not get credited certificate and is forced to remain equivalent to school education examination (SEE) completer.

i. After completion of Level 3, graduates under TVET stream could further their education and learning through following options: i) TVET stream graduates could continue TVET stream in Grades 11 and 12. Unless, it is fully 3 years courses, it will remain as part of Level 4; or ii) As second option, these learners could choose to join CTEVT’s Diploma program; or iii) The third option is opting for Grade 11 in general education stream leaving the TVET stream altogether.

ii. The CTEVT Level 3 graduates, on the other hand, could proceed to Diploma program (Level 4) offered by CTEVT’s TVET Schools/ institutes.

e. Advance Diploma (post secondary-non tertiary) programs need to be introduced to offer opportunity for Level 4 graduates. Similarly, to build students confidence on TVET system and mitigate the ‘second option’ stigma, CTEVT work on introducing/ facilitating level 6 and beyond appears to be an urgent need and is possible through NVQS operationalization.

f. As CTEVT is entrusted with higher level technical workforce preparation responsibility by CTEVT Act 1989 second amendment (Article 6.16 foot note 13), the institution could steer its work on these needs earliest possible. It could consider finalizing the necessary changes in standards, curriculum, duration and qualifications by operationalizing NVQS earliest possible.

g. As NVQS will be basis for all the proposed structural adjustments explained above, graduates from both streams (CTEVT and TVET stream) will need to be awarded with unquestionable recognition equivalent to general education. Further, in order to raise image of CTEVT graduates and build their confidence, some of the current CTEVT schools in each province could be developed into specialized ‘model’/ ‘centers of excellence (CoEs)’ Technical Colleges (for level 3 and 4) and Polytechnics (for Level 4 and 5). However, in order to match the industries’ competent workforce needs and learners’ employment interests, all these ‘model’/ ‘center of excellence’ institutes should be tightly connected with specific industries/economic sectors.

h. With the NVQF operationalization responsibility which encompasses all the quality assurance responsibilities – research, standard and curriculum development, teaching learning materials development, sector human resources development, and assessment and certification – CTEVT could work as a federal quality assurance body. In the analogy, following its 11 August
2020 decision, it may take responsibility of model schools/ CoEs leaving the others to provinces. This could create opportunity for CTEVT to provide technical backstopping support to the provinces and local for a considerable time in future.

i. Taking departure from traditional definition of TVET covering few economic sectors, time has come for redefining it by also including other sectors of economy as done in other countries. It may contribute to enhance both the TVET image and increasing its scope.

4. Conclusions

The proposed structural changes in Grade 6 to 8 could enable students in making an informed decision to or not to choose the TVET path after their Grade 8 graduation. Introducing Level 3 under TVET stream of the general education could not only give graduates a clear pathway but also ensure quality through application of NVQS. It will also help the country in preparing technical workforce from as early as secondary education level. Further, improvement in Diploma level (Level 4) will help enhance quality in employment outcomes and introduction of Level 5 and beyond will offer a seamless career path for the graduates. This provision could also offer the graduates in accessing nationally and internationally recognized certificate and securing better employment.

By making bridging input provisions learners in each TVET level will have opportunity to pursue education and learning in their preferred trajectory. The competency and credit-based modular curricula and assessment with multiple exit and entry options could help not only the regular learners but also to existing workers in various economic sectors/ industries including farmers. Such curricula and provisions could prove to be blessing option for learners who are unable to spend whole 2 or 3 years, for example, duration in a specific degree program which mean after completing certain modules or one year, one could enjoy three options: i) continue further years/ modules; or ii) leave the course with a credited credential and enter into world-of-work for ever; or iii) return to continue education after some years of work experience. Further, by virtue of their long engagement in world-of-work, may have gone through a long hiatus from formal learning environment but still the credited courses could help them make a return. Therefore, such a provision, in real sense, could help make the ‘TVET/TVE for All’ possible.

The structural changes proposed could possibly not only reform the TVET sector but also contribute towards the reformation of the overall education system. Therefore, based on the discussion above, the authors would like to leave four questions for readers to contemplate:

a) Would the above changes be helpful to increase TVET(TVE) enrolment resulting into an increased competition and preparation of a world class
workforce?

b) While respecting the globally accepted term ‘TVET’, considering Nepal context though not only unique to the country, would it be possible to change this term and rename it to only ‘Technical and Vocational Education (TVE)?

c) Has time come to redefine the scope of TVET?

d) Would these structural changes be helpful in raising TVET graduates’ image, quality and finally, boost their competency and confidence?

e) Finally, by working under the continued guidance of MoEST and in collaboration with other federal and provincial ministries, local level governments, private and non governmental sector, and international development partners, would CTEVT as a federal quality assurance body be able to reverse the TVET haywire explained earlier quite sometime soon?

References

