



## Article

# Technical and Vocational Education and Training in Federal Nepal: A Critical Analysis

Usha Bhandari<sup>\*a</sup>

<sup>a</sup>Swiss Agency for Development and Cooperation (SDC)

## Abstract

The technical and vocational education and training (TVET) in Nepal is one of the much discussed agenda for its contribution to socio-economic development of the country. Historically, Nepal's TVET system is striving for being innovative and compatible with the global trends. With the Nepal's Constitution 2015, it has received a considerable attention, as the constitution (in article 51, h, 1) highlights the notion of TVET along with the allocation of TVET responsibilities to all three tiers of government. However, due to differing understanding among the policy makers, including existing several issues and concerns, the development of TVET sector in Nepal has been slow off the mark. Yet, Nepal has many opportunities for reforming the TVET sector in the coming days. There is an urgent need of paradigm shift in action, thoughts and visions in line with the constitution to harness the benefit of TVET sector - to achieve the goal of socio-economic prosperity of the country.

**Keywords:** TVET, VET, qualifications, reform, governance

## Introduction

The technical and vocational education and training (TVET) is perceived as an inevitable means to enable human resources in the labor market to contribute to socio-economic development of the country. In the context of developing countries, TVET plays a significant role in providing competitive human resources to contribute to the social, economic and environmental developments of the country; is viewed as a tool for productivity enhancement and poverty reduction (Pavlova, 2014). In low-income countries like Nepal, it is a crucial measure to develop productive human resources who can contribute to country's prosperity (Ministry of Education Science and

Technology [MoEST], 2018). Furthermore, TVET is also considered as a mechanism to alleviate poverty (Hollander & Mar, 2009); to promote peace, foster conservation of the environment, and to improve the quality of human life and promote sustainable development (UNESCO, 2005).

Globally, TVET's landscape is changing in response to changing social, political and economic factors as well as labor market trends driven by technological advancements (Kanwar et al., 2019). Nepal is also witnessing these changes. Nepal's TVET system is gradually striving for innovativeness to be compatible with the global trends. In recent

---

<sup>\*</sup>Corresponding author. Email: [usha.bhandari@eda.admin.ch](mailto:usha.bhandari@eda.admin.ch)

years, it has received a considerable attention. It is also due to the highlight of TVET notion by Nepal's Constitution 2015 (in article 51, h, 1), which envisions the development of competent and professional human resources through a “scientific, technical, vocational, empirical, employment and people-oriented” education (GoN, 2015). The constitution has allocated TVET responsibilities to all three tiers of government as the concurrent rights. In addition, there are elaborate roles and responsibilities of three tiers of government, which depict that each tier has its own mandate. For instance, the federal government is responsible for national policy, standards, and frameworks, whereas the provincial and local governments are responsible for implementing TVET programs (GoN, 2017).

The article in the constitution clearly indicates that TVET is indispensable for developing competent human resources that are imperative to Nepal's economic development. TVET is therefore a main vehicle for human capital development, which has provided Nepal a unique opportunity to start a new era of socio-economic transformation and prosperity. Consequently, the TVET sector has become an attractive agenda for Nepal's development initiative. As such, several policy documents of the Government of Nepal (GoN) have emphasized its importance for achieving an inclusive economic development and shared prosperity for its citizens. National Education Policy (NEP), which was endorsed by the Council of Ministers highlights the importance of TVET and skills development and the need to expand the reach of TVET services. Subsequently, the fifteenth five-year periodic plan (2019/20–2022/23)

strategically highlights the need and provision of skills development for youth, including the systematic capacity development of TVET, with a focus on apprenticeship and life-long learning (GoN, 2019). Besides, Nepal's budget book for the fiscal year 2022-23 has highlighted the importance of mobilization of available natural resources, human resource, capital, and technology to generate employment and alleviate poverty. This implies the importance of technically competent workforce that can be produced through TVET programs (GoN, 2022).

In addition, academics frequently engage in the discussions, debates as well as in the research activities to whet the improvement of TVET sector policies. Similarly, international development partners have chosen it as one of their priority sectors and thus as an entry point to spur Nepal's development. Despite growing understanding among the policymakers and other stakeholders, and TVET being of paramount importance for economic progress, a concrete vision in the TVET sector is yet to come. There exist several issues that prevent policy makers to reach a consensus for translating the impetus of TVET sector reform into concrete action. Focusing on a few major issues and concerns, this paper, in general, highlights the meaning and purpose of TVET in Nepal, and in particular, the description of national TVET evolution that would assist in developing a common understanding among the major stakeholders, mainly the policy makers. The discussion then concentrates on the current practices, including related challenges and iterates possible solutions to address these challenges.

## Meaning and Purpose of TVET

Internationally, the “TVET” is most frequently used term. Although there is a similar understanding of its meaning and purpose around the globe, the definitions used are not uniform and have been continuously updated in different periods. The UNESCO promotes TVET as an integral part of education. It elaborates technical and vocational training as a comprehensive term referring to those aspects of the educational process, involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life (Cong & Wang, 2012). While this definition covers only the aspects of education, the International Labor Organization (ILO) emphasizes the facets of training for employment at the workplace by including conditions of decent work and of workers’ welfare as a global claim to be satisfied in the 21<sup>st</sup> century (Hollander & Mars, 2009). From the above definitions, it is deduced that TVET consists of both education and training. It is also clear that its essential purpose is to provide knowledge and skills required in the world of work (UNESCO, 2013).

Another important concern is the place where TVET can be provided. Cong and Wang (2012) put forward that it can be offered by the educational institutions and jointly by educational and industrial, agricultural, commercial or any other institutions related to the work of giving opportunities to youth to gain technical theoretical knowledge and practical experiences. TVET can also take place in general schools, such as formal schools (i.e., from kindergarten to Grade 12

or 13) or in post-secondary community and/or technical colleges, and by distance mode (Maclean & Lai, 2011). The key differences between TVET and general education is that TVET accords higher priority to practical, technical and vocational skills rather than largely academic knowledge (Maclean et al., 2012).

Moreover, universities also offer TVET. In the recent years, the argument that runs ‘If it is university education it can’t be VET’ is gradually changing, as there are many TVET programs introduced in various countries at the level of professional Bachelor, Master and Doctoral degrees; dual study programs as well as the ‘vocational drift’ in higher education (European Centre for the Development of Vocational Training, 2017). McLean and Pavlova (2013) published a diverse pattern of TVET provisions; many versions of post-secondary and tertiary levels of TVET are in place around the globe. The degree and the nature of vocational drift depends upon the level of economic development and on cultural traditions of the specific country (UNESCO, 2013).

Summing up the above discussions, the broader definition of TVET can be considered as the one elaborated by UNESCO in 2015. It explains TVET as comprising the development of education, training and skills relating to a wide range of occupational fields, production, services and livelihoods. TVET, as part of lifelong learning, can take place at secondary, post-secondary and tertiary levels and includes work-based learning and continuing training and professional development intended to lead to qualifications. TVET includes a wide range of skills development opportunities

embedded in national and local contexts. Learning to learn, the development of literacy and computational skills, transversal skills and citizenship skills are integral components of TVET (Field & Guez, 2018). Alternative terms used internationally include vocational education and training (VET), vocational and technical education and training (VTET), technical and vocational education (TVE), vocational and technical education (VTE), further education and training (FET), career and technical education (CTE) (McLean & Lai, 2011).

In the context of Nepal, the “TVET” is the term being used since the establishment of the TVET system in the country - particularly after the establishment of an umbrella TVET institution, the Council for Technical Education and Vocational training (CTEVT) in 1989 - to understand the separate provisions of Technical Education (TE) and Vocational Training (VT). TE is understood as a means to provide long-term courses that include the theories and science behind the practical occupation and was offered at technical schools, while VT is understood as comprising relatively short courses that are based on a more hands-on approach, focusing on the skills needed to perform the job. When the debate of using a common terminology instead of multiple terminologies was ongoing, Nepal picked up the term TVET, as reflected in several documents.

TVET as a combined term focuses a ‘holistic’ approach of individual development, meaning that the role of TVET includes educating the whole person, and not just the worker as part of it (UNESCO, 2012). Although Nepal has started using the combined term ‘TVET’, the importance of this strategy has been

undermined. Since its beginning, TVET was perceived as providing vital skills to young people who are from difficult geographical territories, are poor, are dropouts or have no access to formal education (Bhandari, 2013). Carrying such historical legacy, Nepal’s TVET sector emphasizes imparting skills for enabling youths to find employment for securing their livelihood which refers to the narrow understanding of providing training in the fields of lower-skilled, especially informal types of work, mostly home-based or “cottage” industries, such as sewing, knitting, or vegetable gardening (Chaffin, 2010).

As discussed, TVET is a broader concept, intended to prepare people for work related to a specific trade and occupation, and the completion of such programmes usually leads to a recognised qualification. TVET is based on two strong assumptions: a) training leads to productivity, and further to growth (training for growth), and b) skills lead to employability, and further to jobs (skills for work) (Anderson, 2009, as cited in McGrath, 2011). Both assumptions are valid in the context of Nepal. However, in Nepal, recognition of TVET with regard to its vibrant role in developing a new generation of individuals who could contribute to sustainable socio-economic development of the nation is yet to realize.

### **Evolution of TVET in Nepal**

*TVET before the Constitution 2015:* Nepal’s TVET sector, in fact, has a long history. The evidences of ancient architectural structures and woodcarvings in the temples all over the country demonstrate that artisans of Nepal have been practicing TVET in the form of occupational skills as their social

tradition (Shrestha, 1991). A purposeful initiation of TVET can be traced back only to 1937; however, when Nepal started to implement vocational training to promote cottage industries and provide livelihood opportunities to people in Nepal. Furthermore, a formal start of TVET opportunities was only after democracy established in 1951, and the planned development of the TVET sector began only in 1971 (Gajurel, 2010). These initiatives were further institutionalized, and streamlined when the Council for Technical Education and Vocational Training (CTEVT) was established in 1989. The major tasks of CTEVT are to coordinate, develop and strengthen TVET in the country.

Since then, the TVET sector is advanced as a subsector of education, mainly for two purposes: i) to provide individuals with the needed skills and knowledge for earning their livelihood, and ii) to meet the country's need for skilled human resources for national development (Parajuli et al., 2020). Both purposes are important for Nepal to economically prosper. However, higher priority was accorded to the first subject, which has resulted in the fragmentation of the TVET sector. This was evident as the TVET was offered in the past under nearly 17 ministries, including that of Education (Caves & Renold, 2018).

*The TVET in contemporary Nepal (after the Constitution 2015):* Since the promulgation of the constitution, Nepal is a federal country with 7 Provinces and 753 local governments. The TVET functions are allocated at all three government levels as reflected in several (published and unpublished) documents, such as the constitutional unbundling report (unpublished) and the 15<sup>th</sup> five-year plan of

the National Planning Commission (GoN, 2019). According to the Constitution, federal ministries and institutions, such as the CTEVT are responsible for setting national policy, framework and standards in TVET, whereas the Provinces are responsible for developing provincial TVET policies, as well as to implement and assure the quality of the TVET programs. Similarly, local governments are responsible for planning, budget allocation, implementation and monitoring of skills training (GoN, 2015 & 2018). However, there exists a gray line between the roles of federal, provinces and local governments due to the absence of a new legal base, the roles and functions of all three tiers of governments in the TVET sector.

CTEVT is the leading agency for Nepal's TVET sector as mandated by its law formulated before the current Constitution of Nepal 2015. Based on its existing legal mandate, CTEVT offers long-term programs (on Pre-diploma and Diploma level) through the (private and public) technical schools/polytechnics, affiliated partner schools as well as through community schools. At present, CTEVT's long-term programs in various subjects are offered through its 63 constituent schools, 42 partnership schools, 572 community schools and 429 private technical schools (CTEVT, 2021). Besides the long-term programs offered under the CTEVT, the fragmentation of TVET sector is continued as TVET is offered through several ministries at federal and at province levels. At federal level, in addition to the MoEST, currently, more than ten other ministries offer short-term skills training in the name of TVET (MoEST, 2018).

TVET has received a high priority and great attention by all sectoral ministries at province level as well as by local governments. However, in the name of TVET, a mere offer of skills training is more common. Almost no province or local governments have developed a clear vision of the TVET sector as per their mandate. For example, the Ministry of Social Development (MoSD) and other ministries, such as the Ministry of Agriculture, and the Ministry of Tourism etc. have offered skills training to thousands of young people at province level. Similarly, almost all local governments provide skills training to the youths. Consequently, there is sheer lack of uniformity in these trainings.

TVET is also offered at secondary schools throughout Grade nine to twelve in technical stream. Despite heavy criticism of inadequate preparation while initiating TVET subjects there (Wagley, 2014), it has become a national campaign and is implemented by the Center for Education and Human Resource Development (CEHRD) at 485 high schools. These schools have an enrolment quota of 48 students per academic session and provide on-the-job training support to the students (MoEST, 2022).

### **Current Issues**

The above considerations demonstrate that Nepal's TVET sector is fragmented, scattered, has no uniform understanding, warranting a development of a consolidated vision for a sectoral reform. This is due to several pertinent issues existing for many years and awaiting a solution. The issues that need to be addressed are the following:

*Narrow understanding of meaning and purpose of TVET:* While education in general

has always been a priority sector in Nepal, TVET is often perceived as a second-choice formation. TVET is normally targeted to those who failed or have dropped out from the education system. As such, it has been understood as a vehicle for social protection and thus considered as a quick heal to support those who are in a dire need of livelihood means. Although TVET is acknowledged as a subsector of general education, it has never received an equal level of recognition. Since ancient time, general education has been considered as the formation for the leaders who rule the country, whereas TVET has been associated with those classes of society who have to work just for securing their living. The TVET policies and plans in the past were guided by such limited understanding. In addition, they were focused on the supply side, emphasizing the skill deficits in the labor market, and often based on a wrong premise of the learners' skill levels. The notion of TVET was considered as to prepare people for their mere livelihood. Therefore, the focus was on the conveyance of skills for enabling them to enter the job market.

*Fragmentation of the TVET Sector:* Although CTEVT is the apex body of TVET in the country, the absence of a well-coordinated and integrated national TVET system has caused prevailing fragmentation of the TVET services (World Bank, 2011). It has seriously hampered the key aspects of TVET sector, such as quality, relevance, efficiency, access and participation as well as the integration of the system under one qualification framework. The Constitution of Nepal 2015 has expected that the country would get the national TVET policy and act, which would help to resolve these fragmentation problems. However, in the absence of the necessary

legal provisions, they have perpetuated. This issue also extends to the fear of emerging confusion among the three tiers of the governments regarding their respective roles.

*Lack of Concrete Vision:* For lack of an integrated system vis-à-vis relevant policies and acts, the TVET sector does not possess a concrete and consolidated vision for the country. As a result, no commitments by all stakeholders who would be essential for a vibrant TVET are available yet. In view of the fragmentation in this sector, there can be the large number of unwarranted TVET activities in the country, which are yet to be concretized. Visioning of TVET sector is not only about the visioning of the formation of the human resources needed for the country but also of the specific requirements of TVET professionals, such as planners, leaders, managers, researchers, instructors, curriculum developers etc. It further includes financial planning for the short and long-term development of the TVET sector. As a concrete vision is absent, the requirements are not clear yet.

*Delayed Reorganization of Existing Institutions and their Functions in line with Constitutional Mandate:* Although the Constitution of Nepal provides all three tiers of governments the rights and responsibilities to implement their TVET mandates, in practice, provinces and local governments are unable to utilize their rights and responsibilities. It is mainly because of the absence of an enabling legal and regulatory framework (e.g. federal TVET act) that could clarify the functions of three tiers of government in line with the constitution (NITI Foundation, 2022).

*Lack of Recognition of Role of Private Sector:* Since the beginning, Nepal's TVET sector has been led by government actors. While planning the skilling of thousands of young people, they have rarely consulted the private sector for understanding the real labor market requirements. The role of the private sector has always been undermined and considered merely a partner in the training cycle. Private actors are usually just invited for their inputs into the curriculum or their support during the on-the-job training. However, they are rarely considered as important partners in the process of developing human resources through the TVET sector. Renold et al. (2016) emphasize that the best TVET systems can be recognised by their involvement of all relevant stakeholders, especially those from business and industry.

### **TVET Sector Reform: A Way Forward**

Nepal has many opportunities for reforming the TVET sector. After many years of struggle, TVET is now firmly on the Government of Nepal's agenda and the mandate of all three tiers of the governments. It has become a cornerstone for the transformation of the country's education and training system. Its contributions to social and economic development can be further enhanced by developing a more diverse concept of TVET. In particular, the TVET system calls for a paradigm shift. There is an urgent need for changing the thinking and visioning of the TVET sector beyond its importance of imparting skills to people for their mere livelihood. One of the major shifts is the integration of the international tool-kit into the TVET sector reform. It includes national qualifications frameworks, quality assurance regimes, institutional autonomy as well as national governance structures (Mcgarth, 2011).

*The national qualifications framework* is essential for a permeable TVET system - i.e. the presence of progression routes throughout the TVET and general education systems so that individuals can enter programs both vertically to higher occupational qualifications, and horizontally to higher general-education qualifications (Caves & Renold, 2017). Nepal has approved the National Qualifications Framework (NQF) that allows the permeability of the whole education system, including of TVET by the alignment of all courses and programs with the NQF. It demands for operationalization of NQF as soon as possible to benefit larger number of individuals to enable them to enter the labor market with recognized certificates or to upgrade their career through higher level training/education. Moreover, the importance of NQF and urgency of its operationalization for the production of competent human resources in the country has become a prime agenda of discussion during the preparation of TVET Sector Strategic Plan (TSSP). The development of TSSP is led by the MoEST and has involved all major stakeholders that include sectoral ministries at federal level, provinces and local governments, private sector as well as development partners.

*Quality assurance in TVET* includes an accreditation of the programs and institutions, as well as certification from recognized authorities so that graduates can demonstrate their skills to potential employers. According to the constitutional mandates, standards of institutional accreditation should be developed by the CTEVT (with a new role) at federal level. On this basis, provincial and local governments can apply accreditation standards according to their mandate and by

respecting the federal standards and criteria. Accreditation of courses and programs are performed in line with the NQF. Furthermore, Nepal needs to carefully develop a plan for securing the quality of TVET professionals in the groups of instructors, curriculum developers, assessors, supervisors, managers and others who are indispensable for the quality of the TVET sector.

*Institutional autonomy and national governance* are pre-requisites for efficient and effective TVET processes based on the normative standards decided by each country. Moving away from the fragmented system, where trainings are provided by several institutions under several ministries with no uniform standards, Nepal could opt for a shared national TVET vision, mutually fixed and coordinated in the country level and implemented by all government and private actors at different tiers as per their mandate. Approval and careful implementation of the TSSP in collaboration among all three tiers of the government is the major way forward to move ahead with a shared national vision to reform TVET sector in Nepal.

However, it is very important and urgent to enable all three tiers of governments to utilize their rights and responsibilities in TVET sector in practice in line with the constitution. Hence, it demands for the mutually agreed legal and regulatory framework (e.g. federal TVET act) that could clarify the functions of three tiers of government sooner as possible.

## **Conclusion**

This paper has discussed the issues and concerns of the Nepali TVET system. Although it carries the notion that TVET is just conceptualized for those who



are academically less endowed, and are preparing themselves to enter labor market, its recent development is promising. With the promulgation of the Constitution in 2015, Nepal has sufficient prospects to advance the TVET sector through meaningful reform initiatives.

Consequently, Nepal can develop a shared vision of its TVET sector for the next decades. Such a vision should consider the rights and abilities of Nepal's youths to individually decide the vocational pathways to shape their lives on their own, to participate in the labor market, and the development of the quality and quantity of human capital needed to support country's economic development. Development of the TSSP is a very good example of a shared vision. However, without the clarity of roles and responsibilities of all entities involved in the TVET sector as well as conformity of their legal mandates, the shared vision of TVET sector could hardly be achieved.

Furthermore, generating an empirical evidences through regular review, discussion, research and studies regarding the TVET development and the efforts placed on its reform are very important. Such research can be conducted at least at two levels. At the government level, careful analysis of utilization of TVET mandates by three tiers of government and finding out the gaps and opportunities for the collaboration among them could provide further information to improve the TVET sector. Similarly, quality of TVET courses and TVET professionals, youths' perception towards TVET courses and programs, emerging roles of the private sector in the TVET and its future prospects etc. could be other areas of research which

could generate information to spur TVET sector reform in Nepal.

## References

- Bhandari, U. (2013). Technical vocational education and training (TVET) development and social inclusion in Nepal. *TVET Journal*, 1(13), pp. 30-36.
- Caves, K., & Renold, U. (2018). Goal-setting for TVET reform: A framework for identifying the ideal system in Nepal. *Journal of Education and Research*, 8(1), pp. 6-28. <http://dx.doi.org/10.3126/jer.v8i1.25477>
- Caves, K., & Renold, U. (2017). *The new Constitution and its impact on TVET governance in Nepal*. <https://doi.org/10.3929/ethz-a-010857985>
- Chaffin, J. (2010). *Education and opportunity: Post-primary and income growth*. [https://s3.amazonaws.com/inee-assets/resources/Framing\\_Paper\\_1\\_Final.pdf](https://s3.amazonaws.com/inee-assets/resources/Framing_Paper_1_Final.pdf)
- Cong, S., & Wang, X. (2012). A perspective on technical and vocational education and training. In D. Zeng (Ed.), *Advances in computer science and engineering*. pp. 67-75.
- Council for Technical Education and Vocational Training (2021). *Council for Technical Education and Vocational Training annual report, 2078-79*. <http://www.ctevt.org.np/public/uploads/kcfinder/files/Annual%20Report%20-20781.pdf>
- European Centre for the Development of Vocational Training (2017). *The changing nature and role of vocational education and training*. <https://www.cedefop.europa.eu/en/publications-and-resources/publications/5563>

- Field, S., & Guez, A. (2018). *Pathways of progression. Linking technical and vocational education and training with post-secondary education*. UNESCO. <http://www.unesco.org/open-access/terms-use-ccbysa-en>
- Gajurel, G. (2010). CTEVT act and mandate. *Technical and Vocational Education and Training Development Journal*, 1(10), pp. 18-22.
- Government of Nepal. (2019). *Fifteenth plan*. National Planning Commission. [https://www.npc.gov.np/images/category/15th\\_Plan\\_Final1.pdf](https://www.npc.gov.np/images/category/15th_Plan_Final1.pdf)
- Government of Nepal. (2015). *The Constitution of Nepal*.
- Government of Nepal. (2020). *Budget book*. Ministry of Finance.
- Government of Nepal (2017). *Unbundling/Detailing of List of Exclusive and Concurrent Powers of Federation, the State and the Local level Provisioned in the Schedule 5,6,7, 8, 9 of the Constitution of Nepal. Report. Federalism Implementation and Administration Restructuring. Coordination Committee, magh, 2073*. [www.opmcm.gov.np](http://www.opmcm.gov.np)
- Government of Nepal (2022). *Nepal Government, Budget Speech of Fiscal Year 2022-23*. [https://www.mof.gov.np/uploads/document/file/1656476715\\_Budget%20Translation%20031379%20cv.pdf](https://www.mof.gov.np/uploads/document/file/1656476715_Budget%20Translation%20031379%20cv.pdf)
- Government of Nepal (2022). *Flash I REPORT 2078 (2021/22)*. [https://cehrd.gov.np/file\\_data/mediacenter\\_files/media\\_file-17-98334697.pdf](https://cehrd.gov.np/file_data/mediacenter_files/media_file-17-98334697.pdf)
- Hollander, A., & Mar, N. Y. (2009). *Towards achieving TVET for all: The role of the UNESCO/UNEVOC International Centre for Technical and Vocational Education and Training*. [https://link.springer.com/chapter/10.1007/978-1-4020-5281-1\\_3](https://link.springer.com/chapter/10.1007/978-1-4020-5281-1_3)
- Kanwar, A., Balasubramanian, K., & Carr, A. (2019). Changing the TVET paradigm: New models for lifelong learning. *International Journal of Training Research*, 17(sup1), 54-68. <https://doi.org/10.1080/14480220.2019.1629722>
- Maclean, R. & Lai, A. (2011). The future of technical and vocational education and training: Global challenges and possibilities. *International Journal of Training Research*, 9, (1-2), 2-15. <https://www.tandfonline.com/doi/pdf/10.5172/ijtr.9.1-2.2?needAccess=true>
- Maclean, R., Jagannathan, S., & Sarvi, J. (2012). Skills development issues, challenges, and strategies in Asia and the Pacific. *Skills Development for Inclusive and Sustainable Growth in Developing Asia-Pacific*, 3-27. [https://doi.org/10.1007/978-94-007-5937-4\\_1](https://doi.org/10.1007/978-94-007-5937-4_1)
- McGrath, S. (2011). *Skills for development? Rethinking the kind of development we want TVET to support*. University of Nottingham. <https://www.norrag.org/fileadmin/Full%20Versions/NN46.pdf>
- McLean, R., & Pavlova, M. (2013). *Vocationalization of secondary and higher education: Pathways to the world of work. Revisiting global trends in TVET: Reflections on theory and practice*. UNESCO-UNEVOC.

Ministry of Education Science and Technology. (2018). *Comprehensive TVET annual report*.

Niti Foundation, (2022). *Towards productivity consideration for TVET policy in Nepal. A Political Economy perspective*. Niti Strategic Services Pvt. Ltd. Kathmandu, Nepal. <https://nitifoundation.org/wp-content/uploads/2022/02/TVET-Report.pdf>

Parajuli, M. N., Bhandari, U., Renold, U., & Lamsal, H. (2020). *Financial flow in TVET in Nepal: Transiting from the old to the New Constitution* (Working Papers, No. 10). KOF, ETH Zürich.

Pavlova, M. (2014). *TVET as an important factor in country's economic development*. <http://www.springerplus.com/content/3/S1/K3>

Renold, U., Bolli, T., Bürgi, J., Caves, K., Egg, M.-E., Rageth, L., & Kemper, J. (2016). *Feasibility study for a curriculum comparison in vocational education and training: Intermediary report II: Education-employment linkage index* (KOF Studies No. 80). KOF, ETH Zürich.

Shrestha, S. M. (1991). Historical analysis of vocational education in Nepal [Unpublished doctoral dissertation]. Virginia Polytechnic Institute and State University.

UNESCO (2005). *Learning for work, citizenship and sustainability: Final report*. UNESCO/UNEVOC International Centre.

UNESCO (2012). *Transforming TVET from idea to action*. [https://unevoc.unesco.org/fileadmin/user\\_upload/docs/Transforming\\_TVET\\_From\\_idea\\_to\\_action.pdf](https://unevoc.unesco.org/fileadmin/user_upload/docs/Transforming_TVET_From_idea_to_action.pdf)

UNESCO (2013). *Education sector technical notes: Technical and vocational education and training*. <https://unesdoc.unesco.org/ark:/48223/pf0000222129>

Wagley, M. P. (2014, Dec 24). SLC maa akshar grading pranalee ('Letter grading system in SLC'). *Kantipur National Daily*.

World Bank. (2011). *Nepal: Enhanced vocational education and training project (EVENT)*.