

# Technical and Vocational Education and Training Development Journal

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## A Milestone for the Promotion of TVET Sector

This is a matter of pride for us to publish the 11<sup>th</sup> issue of **Technical and Vocational Education and Training (TVET) Development Journal** con without any interruption from last two years. Council for Technical Education and Vocational Training (CTEVT) has been publishing this journal every year. Eighteen articles in various subject areas written by the authors with national and international repute have been included in this issue. The articles have broadly been categorized into five major areas: TVET policy, Training and Employment, TVET Management, Curriculum and Quality Assurance, Training and Employment and Equity and Access.

Education and training journals are considered very important resources for the intellectuals, authors, researchers and other stakeholders for study and research. Quality journals in education sector are scarce particularly in a developing country like Nepal. Moreover, specific journals in sub-sectors such as TVET are difficult to find. In this context, CTEVT as the apex body of TVET in Nepal, has been putting its endeavors to bring out quality journal in the sector. For achieving such noble objective, it is indeed a very challenging task. The authors of the sector with high repute generally do not have time to spare for writing the requested articles due to their busy schedule. The dedicated CTEVT personnel on leadership of Mr. Rajendra Karki, Director particularly from Research and Information Division, involved in publishing this journal shed a lot of sweats and constantly kept their touch with the authors. Moreover, the editorial team tried to make inclusive by capturing the articles of authors from various segment and identity which is beauty of this journal. Whatever the difficulties, it is hoped that the result will pay off.

The robust and splendid thoughts and ideas captured in the articles of the established authors are expected to guide the future direction and pave the way for the people who are engaged in the field of technical education and vocational training. The editorial team believes that this journal will be a milestone for TVET development in Nepal and everywhere. The intellectuals, researchers, students and other stakeholders who need TVET information can obtain much of it from one piece document.

The editorial team would like to express its heartfelt gratitude to all the authors who have contributed by providing relevant and valuable creations. The team would also welcome articles from the intellectuals, professionals and others in various areas relevant to education and TVET sub-sector for the next issue of the journal.

It is believed that one more brick has been added for constructing the building of TVET sub-sector by means of this journal. We always look forward to receiving constructive suggestions from the readers that will inspire the editorial team for further improvement of the journal in the issues to be published in future.

**Editorial Team**

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## **Skills for Employment Big Need Small Supply**

Prof. Suresh Raj Sharma, Ph. D.<sup>1</sup>

### **Challenges and opportunities can be outlined briefly as follows:**

- Providing employments to the youths in Nepal is a big task for the country now.
- The politicians want their supporters to be engaged in jobs, skilled or unskilled, qualified or unqualified, but that is the reality.
- The business sector needs skilled workers in big numbers, but the people they want to hire must be skilled and disciplined, the academic institutions need to understand these realities well,
- The jobs in public sector like army, police, teaching, civil service etc. are asking for newer types of competencies but the educational institutions are not quite geared to provide such competencies, it appears to be a need now.
- The physical development processes whether building roads, constructing housing complexes, managing transport, generating energy and producing food etc. need enormous numbers of people equipped with relevant skills, we now need to divert our efforts towards meeting these needs now,
- The job providers in Gulf countries, South Asian countries or India have the jobs but need the people at lesser costs or want less expensive semi-skilled or skilled work-force. If we could have equipped them with skills, they would have been much better off where ever they go. Number-wise such people could be in millions.
- Job opportunities are there in Nepal itself, tremendous scope appears visible, but the process of putting things on right track does not appear to be in sight.

### **To speak rather bluntly, our human resource development process appears completely lost**

The people with university degrees have no jobs, the people up-to secondary or higher education too are seeking jobs but don't find them at all. Also the people who have spent eight to ten years in schools but could not complete School Leaving Certificate are even worse.

The Government appears lost in the world of statistical achievements, like we have done extremely well in matters like "Education for All", "Health for All", etc & etc. What type of education will help people most like "Employment Opportunities for All", good wages and the more conducive environment for the employees working full time or part time engaging the youths for productive works are the matters least attended.

Quality regulatory bodies like 'Skill Testing and Certificating Authority', 'Technical Instructor Production System', 'Professional Councils of various subject areas', 'Suitable Career Paths for Lower and Middle level Craftsmen or Technicians' etc are there but how effectively they are functioning are the matters needing serious attention of the policy makers.

Right now it appears that the Council for Technical Education and Vocational Training (CTEVT) is aspiring to launch university level programs under its umbrella, when the exact scope and characters of polytechnic type

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<sup>1</sup> Author is the Vice-Chancellor of Kathmandu University and this is his thought provocative creation.

education apart from the achievement of the ongoing. The main jobs they are assigned for need to be strong and reliable first before they ask for more.

The issues like how the development of reliable skill training institutes are financed, programs quality wise and quantity-wise are not very clear yet, how the access of less affording youths to such programs are addressed, how the placements of the skilled people are taken care of, how the growing needs of the fully skilled instructors are met or trained ? are the things needing more serious attention than remaining excessively occupied in the same statistical achievements like how many universities we created, how many hundred campuses and how many thousand higher secondary schools have come up etc are now. Matters like what percentage of the educated youths are actually or are possessing the employable-skills are the matters not being addresses properly. What the youths really need and what we are really providing are not reviewed well.

When we look at the annual education budget, only about 2% is going for skill development, almost 80% going to finance general education system. On the other hand, 75% of the students seeking the professional studies like medicine, nursing, engineering, management are going to the colleges where the government input is virtually nil. Don't these things tell an entirely different story? The government managed system too is asking for more but making less good performance both qualitatively and quantitatively. Why can't a system where government funded institutions too charge suitable fees from affording parents and government also provides some kind of supports to the poor children studying in privately managed systems too.

Similarly, asking management colleges, nursing colleges, medical colleges, engineering colleges or institutions of applied sciences to contribute something by providing at least some courses of lower levels at lower costs, would not be a bad idea at all.

More than only going for the expansion of inadequately nourished education system the attention of the government now needs to be focused towards the efficient functioning or good co-ordination of:

- quality regulatory bodies,
- quality training providers,
- forging partnerships with potential,
- establishing good coordination between academic and skill training institutions.

The purpose of education can't be or should not be limited to funding the children with less useful facts and expanding the programs more suitable for higher degree aspiring lots, it should also take seriously towards the benefits to the weakest section of the people, through giving them something that can really help their basic needs like food shelter, clothing's etc. That can only be achieved through the expansion and better management of a suitable job oriented education.

If we look at the mandate given to the Council for Technical Education and Vocational Training (CTEVT) it appears that it has all the major elements included like.

- i. Instructor Preparation System,
- ii. Co-ordinate the curriculum development for longer term and shorter term trainings programs to be conducted by various government departments (like the department of labor, industries agriculture so on) and other non-government and private agencies, and CTEVT itself,
- iii. Initiating and managing apprenticeship mode of trainings,
- iv. Skill testing, certification of skilled workers and their suitable accreditation.
- v. Regular assessment of emerging and changing skill needs,



- vi. Coordinating all skill development and technician level Programs up to the middle level falling under its justification.
- vii. Representation of all the important stakeholders in the main executive body, like secretaries of the ministry of education, ministry of industry, ministry of labor, rector of Tribhuvan University, member of national planning commission, member of public service commission, chair person of the federation of Nepal chamber of commerce and industries. This highest level committee is chaired by the minister of education and administrated mainly by the full time vice chairman and member secretary of the council.

But when we look at its operation of over twenty-three years many things still appear more scattered and better managed, like

- skill instructor training is inadequate or not in place,
- skill need assessment is not occurring as is required,
- providing access to less affording youths is still small,
- career path for skilled workforce to university level courses is not properly worked out,
- skill certification or accreditation system is not yet accepted by the overseas employment markets.
- the system, though appears more in need of autonomy but is still seen controlled by government system.
- it has been managing the constituent program much better than affiliated programs. In recent years it is being even alleged for getting excessively politicized and also even commercialized.
- it has not properly managed apprenticeship mode of training nor has strengthened the work study scheme,
- it has not developed clear cut policies for the operation of polytechnic system,
- has not been able to establish strong tripartite relationship or partnership with industries, labor department and the trainees. As a result the training cost could not be shared or reduced.
- the imparting of skills on the modular basis is not attempted.
- could not mobilize the communities, donors, sponsors for strong partnerships than asking government and trainees themselves for the cost,
- could not reach to the rural and remote areas with not even one skill training centre in one election constituency not to talk of one in one village development committee.
- could not convince the government that at least 10% or even 20% of the government budget set aside for education should go to TEVT sector if we really want to do something for the lower echelon or under privileged lots of the society.
- in the USA this sector is strongly backed up by community colleges on heavy state financing, where as in most of the developed countries of Europe and Asia industries are bearing the cost of such trainings through industries based apprenticeships.
- the system of preparing competent managers to manage technical schools and technical training centers appear still very much lacking.
- except the production at very few institutions the employment sector does not appear happy with the products of CTEVT system on the whole.

- Except BTech. Ed, it has not established good collaboration links with universities of Nepal

The skill training programs set up in sixties were good standards. Those set up in seventies and eighties were good too. But those set up in nineties and first decade of twenty first century do not appear impressive quality wise and good co-ordination wise. A serious rethinking now needed?

## Employment, Skills, and Education in Nepal: A brief account

Vishnu Karki, Ph. D.<sup>1</sup>

### Abstract

*Recent trend in education is inclined more towards skills orientation, competencies, and employability. The global trends in education and emerging sociopolitical order within the country demand an overhaul in national policy making process. For countries like Nepal with its poor economic base, education should play a significant role as a means to boost its economy. In view of the growing foreign employment trends in Nepal, time has come to realize and appreciate this sector as the major source of income, and as the pillars of national economy. Once we realize foreign employment as our national economy, then the entire education system must be developed to support this view.*

*This paper highlights the importance and relationships between skills, education and employment giving reference to soft and hard skills in particular. The paper also discusses apparent challenges and opportunities in education sector and offers the way forward. The discussions are, in places, linked with the SSRP as appropriate.*

### Introduction

It is a hard fact that foreign employment is gradually becoming the destiny for a large majority of Nepali youths. At the same time, foreign employment has also become an indispensable source of national revenue. In a recently conducted study by the World Bank it was revealed that the total revenue in 2009-10 from foreign employment (including India) was about \$2.5 billion which is about 25% of the GDP (THT, July 4, 2011). This is a huge source of national income for a country like Nepal. Taking this instance further, a couple of considerations then becomes appropriate to discuss. For example, does this fact constitute a factor in national economic as well as educational planning and policy making?

Sooner or later, this realization must form the national interest and an agenda to be part of our economic and educational debate. Nevertheless, the fact remains that foreign employment sector for Nepali youths is ever growing and that there is the need to preparing youths with the skills desirable for maximizing their personal and professional/occupational satisfaction whereby the outcomes is optimal. So far the skill that is taught to Nepali youths is focused on hard skills. Training on soft skills, which is mostly missing in our curriculum, is the need of the time if the nation wants to stay-on with the foreign employment sector. Moreover, documents have also revealed that the soft skills are also needed to instill peace and harmony in the country.

The School Sector Reform Program (SSRP 2009-15) launched by the Ministry of Education in 2009 as an integrated approach to the development of education sector in Nepal has rendered a high priority in technical and vocational education as an important component of the sector. It is quite apparent that the plan has taken a detour slightly away from the regular and traditional modes of technical and vocational education by introducing the concept of soft-skills in school education. The regular technical and vocational education is being managed by CTEVT through a number of constituent, school based annex programs, and thru privately run institutions affiliated to CTEVT. Technical and vocational education largely constitutes providing skills training on different occupational trades which, in some cases, also require heavy equipments and infrastructure.

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<sup>1</sup> Author is the researcher of education and development with national and international repute.

It is important to note that the TEVT curriculum is largely designed to cater to the needs of the local job market. On the other hand, developments of new technology and the use of sophisticated tools in most skills areas demand an operational skills and hands-on training. Moreover, rapidly changing priority areas in the employment sector require a critical assessment of future trends and a robust planning. In this respect, the gap is quite discernible in our TEVT program. Nevertheless, the main focus of this paper is to bring some highlights and to critically examine soft-skills that the SSRP has brought about to introduce in schools in the country.

### **Evolution of Soft skills in the SSRP**

The first policy document that paved the way for SSRP development was a Concept Paper which was endorsed by the government of Nepal in 2007 after extensive consultation and interaction with stakeholders at the national and sub-national level. The Concept Paper, among other things, suggested mainstreaming high school education (9-12 grades) thru general and vocational streams.

*The structure of school education will comprise grades one to twelve, basic education running between grades one and eight, and secondary from nine to twelve. The vocational education stream will begin at grade nine. After completing their three years, vocational stream students will be given opportunities to enter tertiary education by completing an additional one-year bridge course (SSR Concept Paper, MOE, 2007).*

The Concept Paper thus had given a clear direction towards mainstreaming general, and technical and vocational education by giving students the opportunity to selecting particular stream of their choice and also a way-out for those willing to swap between streams.

Following the endorsement of the Concept Paper, MOE prepared a Core Document which essentially translated the initial concepts into a much more comprehensive policy framework together with key program strategies and actions proposed. The core document further elaborated the concept of TEVT streaming by proposing specific steps and strategies to examination and accreditation and thru the provision of bridge course for students willing to joint technical subjects and skills either in formal or vocational streams. The Core document further emphasized the need to orient students about technical and vocational stream as a preparatory support, from as early as grade 6, so that the students understand the nature and scope of different trade and develop their career interest in a particular trade.

In fact both the concept paper and the core document, prepared prior to the SSRP, discuss much more about streaming regular and vocational education. However, after much debate on whether TVET could be cost effectively introduced in schools and also based on regional and international practice, soft skills in school curriculum and expansion of TEVT through CTEVT was agreed and the idea of streaming was thus dropped.

*“... there are three modes of TEVT program that are currently in operation: technical schools running long-term certification courses, vocational component built into schools (either as an annex or as curricular streams), and short courses as offered by public/private providers or local governments and certified by CTEVT arrangements. These modes of technical and vocational education will be continued (SSRP, 2009-15).*

Nevertheless, the major driving force behind the concept of soft skills was to enhancing the quality and relevance of vocational and technical education thru preparation and orientation to students quite early on. Secondly, and most importantly, the idea was also to impart civic sense and values so as to enable students to understand and pursue civic responsibilities. Accordingly, curricular reform was also suggested to developing an understanding of civic responsibilities. Thus, a discourse on soft and hard skills in Nepal's education system was begun thru the SSRP. Though it came late, it is still not too late.

## The “hard skills” and “soft skills”

Literature provides a rich discussion on soft and hard skills. The discussion here is rather focused to understand the soft skills and its value in our own social and educational contexts. However, some discussion on hard-skills is also necessitated to differentiate between the two. Moreover, it is also crucial that we develop a clear understanding about whether soft skills should be delivered as a training program or as a curricular teaching in classrooms.

The startling fact about hard and soft skills is that “hard skills”, unlike as it sounds, are relatively much easier to train compared to “soft skills”. From an organizational perspective, Dennis E. Coates (retrieved from [www.2020insights.net](http://www.2020insights.net)) suggests that, “hard skills” are technical or administrative procedures related to an organization’s core business. Examples include machine operation, computer protocols, safety standards, financial procedures and sales administration. These skills are typically easy to observe, quantify and measure. They’re also easy to train, because most of the time the skill sets are brand new to the learner and no unlearning is involved. By contrast, “soft skills” (also called “people skills”) are typically hard to observe, quantify and measure. People skills are needed for everyday life as much as they’re needed for work. They have to do with how people relate to each other: communicating, listening, engaging in dialogue, giving feedback, cooperating as a team member, solving problems, contributing in meetings and resolving conflict.

Wikipedia defines Soft skills as a “sociological term relating to a person's "EQ" (Emotional Intelligence Quotient), the cluster of personality traits, social graces, communication, language, personal habits, friendliness, and optimism that characterize relationships with other people. Soft skills complement hard skills (part of a person's IQ), which are the occupational requirements of a job and many other activities”.

The following story illustrates succinctly and brings more clarity about different kinds of soft skills and its relationships with different personality traits:

*An old Cherokee was teaching his grandson about life.*

*He said to the boy: -“A fight is going on inside me. It is a terrible fight and it is between two wolves. One is evil – it is anger, envy, sorrow, regret, greed, arrogance, self-pity, guilt, resentment, inferiority, lies, false pride, superiority and ego”.*

*“The other – he continued – is good, it is joy, peace, love, hope, serenity, humility, kindness, benevolence, empathy, generosity, truth, compassion and faith.”*

*“The same fight is going on inside you and inside every other person, too.” – said the old man.*

*The grandson then asked his grandfather: “And, which wolf will win grandpa?”*  
*“The one you feed, my son!” – simply replied the old Cherokee.*

*Well, I think that this is just what soft skill is about. It is about feeding and training the ‘good wolf’, showing kindness and being gentile toward the others, being patient and listening to them, giving pleasure to them while they communicate with you, smiling with everyone around you and radiating respect, understanding and pleasure<sup>2</sup>.*

## Different Variants of Soft Skills

Although there are multiple variants used to describe personality traits, “The Big Five Factors” or the “Five Factor Model” are commonly used to describe it. Although some scholars contradict with this classification, Wikipedia summarizes the model and its constituent traits as (OCEAN):

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<sup>2</sup> Retrieved on July 16, 2011 from <http://soft-skill.blogspot.com/2008/02/definition-of-soft-skills.html>.

- **Openness** – (*inventive/curious vs. consistent/cautious*). *Appreciation for art, emotion, adventure, unusual ideas, curiosity, and variety of experience.*
- **Conscientiousness** – (*efficient/organized vs. easy-going/careless*). *A tendency to show self-discipline, act dutifully, and aim for achievement; planned rather than spontaneous behavior.*
- **Extraversion** – (*outgoing/energetic vs. solitary/reserved*). *Energy, positive emotions, surgency, and the tendency to seek stimulation in the company of others.*
- **Agreeableness** – (*friendly/compassionate vs. cold/unkind*). *A tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others.*
- **Neuroticism** – (*sensitive/nervous vs. secure/confident*). *A tendency to experience unpleasant emotions easily, such as anger, anxiety, depression, or vulnerability.*

These classifications describe human quality that an individual must learn. Thus, the discussion that we have thus far guides us to comprehend hard skills as more or less the core skill that is a must to get the job while soft skills are essential personal and professional skills that is a must to enhance one’s performance at the job and in the society. ‘It is often said that hard skills will get you an interview but you need soft skills to get (and keep) the job’<sup>3</sup>.

Most literature and even our commonsense relate skills with one’s employability and as marketable asset. The above deliberations also relate skills exclusively with employability and organizational efficiency. However, when it comes to the soft skills, these are most notably skills that focus around one’s personality traits. While it is necessary to have personality traits developed to ensure employability, these skills are even more important to become a good citizen. Personality traits are more generic in nature and it includes civic responsibilities, human values, dignity, and humility. To make it even more perceptive, personality traits helps sustain peace and harmony, progress and prosperity in any nation.

If we build further on this notion, that soft skills are personality trait, then the elements embedded in soft skills, as discussed above, become even more important and a must to every single person whether employed or unemployed. In essence, every citizen must have the knowledge about and practice soft skills in their occupational and social environment.

**List of soft skills**

The list of soft skills that can be found in the literature included a variety of areas and attributes. The Workforce Profile<sup>4</sup> enlists top 60 soft skills required in any field of work:

1. <i>Math.</i>	24. <i>Work experience.</i>	46. <i>Ability to make production quotas.</i>
2. <i>Safety.</i>	25. <i>Ability to measure.</i>	47. <i>Basic manufacturing skills training.</i>
3. <i>Courtesy.</i>	26. <i>Personal integrity.</i>	48. <i>Awareness of how business works.</i>
4. <i>Honesty.</i>	27. <i>Good work history.</i>	49. <i>Staying on the job until it is finished.</i>
5. <i>Grammar.</i>	28. <i>Positive work ethic.</i>	50. <i>Ability to read and follow instructions.</i>
6. <i>Reliability.</i>	29. <i>Interpersonal skills.</i>	51. <i>Willingness to work second and third shifts.</i>
7. <i>Flexibility.</i>	30. <i>Motivational skills.</i>	52. <i>Caring about seeing the company succeed.</i>
8. <i>Team skills.</i>	31. <i>Valuing education.</i>	
9. <i>Eye contact.</i>	32. <i>Personal chemistry.</i>	
10. <i>Cooperation.</i>	33. <i>Willingness to learn.</i>	

<sup>3</sup> Retrieved from <http://searchcio.techtarget.com/definition/soft-skills>.

<sup>4</sup> Challa S S J Ram Phani, (Jan 2007), Retrieved in July 25, 2011 from <http://www.rediff.com/getahead/2007/jan/08soft.htm>

<ul style="list-style-type: none"> <li>11. Adaptability.</li> <li>12. Follow rules.</li> <li>13. Self-directed.</li> <li>14. Good attitude.</li> <li>15. Writing skills.</li> <li>16. Driver's license.</li> <li>17. Dependability.</li> <li>18. Advanced math.</li> <li>19. Self-supervising.</li> <li>20. Good references.</li> <li>21. Being drug free.</li> <li>22. Good attendance.</li> <li>23. Personal energy.</li> </ul>	<ul style="list-style-type: none"> <li>34. Common sense.</li> <li>35. Critical thinking skills.</li> <li>36. Knowledge of fractions.</li> <li>37. Reporting to work on time.</li> <li>38. Use of rulers and calculators.</li> <li>39. Good personal appearance.</li> <li>40. Wanting to do a good job.</li> <li>41. Basic spelling and grammar.</li> <li>42. Reading and comprehension.</li> <li>43. Ability to follow regulations.</li> <li>44. Willingness to be accountable.</li> <li>45. Ability to fill out a job application.</li> </ul>	<ul style="list-style-type: none"> <li>53. Understanding what the world is all about.</li> <li>54. Ability to listen and document what you have heard.</li> <li>55. Commitment to continued training and learning.</li> <li>56. Willingness to take instruction and responsibility.</li> <li>57. Ability to relate to coworkers in a close environment.</li> <li>58. Not expecting to become a supervisor in the first six months.</li> <li>59. Willingness to be a good worker and go beyond the traditional eight-hour day.</li> <li>60. Communication skills with public, fellow employees, supervisors, and customers</li> </ul>
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Another list summarizes various personality and professional traits into 43 soft skills types<sup>5</sup>.

<ul style="list-style-type: none"> <li>1. Observation</li> <li>2. Know yourself (introspection)</li> <li>3. Openness and flexibility (paradigm shifting)</li> <li>4. Internal motivation and passion</li> <li>5. Action orientation, drive and self initiation</li> <li>6. Self development</li> <li>7. Self confidence</li> <li>8. Assertiveness</li> <li>9. Integrity</li> <li>10. Trustworthiness</li> <li>11. Composure and self presentation (appearance, manners and etiquette)</li> <li>12. Intellectual horsepower and learning</li> <li>13. Creativity and innovation</li> <li>14. Conviction</li> <li>15. Moral courage</li> <li>16. Dependability and reliability</li> <li>17. Dealing with ambiguity</li> <li>18. Time management</li> <li>19. Goal setting and result orientation</li> <li>20. Decision making</li> <li>21. Problem solving and process orientation</li> <li>22. Organizing</li> </ul>	<ul style="list-style-type: none"> <li>23. Coordinating</li> <li>24. Delegation</li> <li>25. Communication (speaking, listening, empathy, body language, writing)</li> <li>26. Interpersonal skills</li> <li>27. Negotiation</li> <li>28. Conflict management</li> <li>29. Presentation</li> <li>30. Convincing</li> <li>31. Coaching and developing people</li> <li>32. Counseling</li> <li>33. Mentoring</li> <li>34. Team work</li> <li>35. Team building</li> <li>36. Consensus building</li> <li>37. Conducting meetings</li> <li>38. Leading</li> <li>39. Big picture thinking and strategic thinking</li> <li>40. Motivating others</li> <li>41. Controlling</li> <li>42. Safety</li> <li>43. Stress management</li> </ul>
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<sup>5</sup> Retrieved in July 25, 2011 from <http://www.hrindex.com/hr-forum/career-management/1574-list-of-soft-skills>.

These lists keep on varying from one scholar to another and from one organization to the other. However, one of the sources<sup>6</sup> has generalized different soft skills into three main categories as:

- *Interactions with Coworkers*
- *Professionalism and / or Work Ethic*
- *Critical Thinking or Problem Solving*

These three traits essentially orient individual to develop a positive attitude towards work and work ethics and develops self-respect and the respect to work culture without any prejudice. It is also believed that each of these categories of skills can be applied to almost any position in nearly every company. The explanation to these three major categories is discussed below:

### ***Interactions with Coworkers***

This first category of soft skills includes the ability to interact effectively with coworkers and clients. Examples of this category of skills include:

- ***Networking*** - *this is the building of strong relationships or alliances with others. Networking is important in building connections across an enterprise. If you do not know something yourself, it's important to know who can help.*
- ***Communication*** - *the effective sharing of information with others - including oral, written, and even non-verbal communication.*
- ***Teamwork / Collaboration*** - *the ability to work successfully in a group setting, including assuming the role of a team player. This is someone that puts the goals of the team ahead of their personal goals.*
- ***Demonstrating Empathy*** - *the capability to share one's feelings with others, as well as understanding the emotions of others.*

### ***Professionalism and/or Work Ethic***

This second category of soft skills focuses on how a person conducts himself or herself at work. Examples of this category of skills include:

- ***Professionalism*** - *includes dressing appropriately for the work setting, arriving on time, speaking in a respectful manner to coworkers, customers and clients.*
- ***Integrity*** - *acting in a truthful and honest manner. This skill is typically aligned with the values expressed by the company.*
- ***Optimism*** - *this person anticipates the best possible outcome, and provides positive feedback when someone is faced with adversity.*
- ***Enthusiasm / Motivation*** - *the skill required to remain devoted to, and supportive of, an idea, corporate goal or work assignment. To continue to remain engaged in the pursuit of a goal.*

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<sup>6</sup> Retrieved on July 23, 2011 from <http://www.money-zine.com/Career-Development/Leadership-Skill/Understanding-Soft-Skills>.



## Critical Thinking or Problem Solving

This last category of soft skills deals with one's ability to think critically, and solve problems at work. The ability to pull together data to solve a problem in the workplace is a widely-valued talent in a business setting.

One of the keys to being an effective problem solver is developing the solution to the problem in a reasonable timeframe. It is also important to be able to explain how the solution to a problem was solved in both a logical and systematic manner.

## Soft-Skills in Nepal

Based on the deliberations made thus far on soft skills, it would not be imprudent to say that the concept of soft-skills education in Nepal is still in its rudimentary stage. The school curriculum, teacher preparation courses, the textbooks, and teacher and student evaluation have least include the intent or the content of soft skills into pedagogy.

Some people believe that soft skills are included in our education and in support they tend to synthesize implicit meaning from a few key words and phrases included in textbooks. However, it is difficult to deny that our school curriculum, and for that matter our school education, is heavily loaded with subject specific contents. The TEVT curriculum is also focused on specific trade which, according to the definitions discussed above, is mainly teaching hard skills. Thus, it remains as the fact that our education system has not yet recognized soft skills explicitly.

It appears that the difficulty associated with assessing the level of soft skills in students and teachers is the primary reason why it is not so much explicitly included in curricular activities. There also exists duality whether soft skills are supposed to be provided through training or through a course work in classrooms. Moreover, the question also looms whether soft skill is a post-job, on-the-job type of training, or a pre-job training, or something that should be embedded into regular school activities? These questions require policy debate at the national level to determine which skills should go into the curricular and non-curricular activities.

As discussed above, the intent of the SSRP is mainly two-fold: 1) to orienting students about technical and vocational education early on so that at the end of grade eight they could chose the right track as well as the right trade for their occupational career, and 2) to educate soft skills among students so that they develop respect and appreciate the world of work, human values and self-respect. In this regard the SSRP has actually initiated the discussion about soft skills education in Nepal.

MOE has prepared an approach paper to soft skills in which the clusters of soft skills is organized in the following manner<sup>7</sup>:

- **Basic/fundamental skills (Solid foundational knowledge):** such as literacy, using numbers, using scientific principles and technology, effective use of language in both written and verbal communication.
- **People-related skills:** such as communication, interpersonal skills, team work, customer service skills, interpersonal skills, working cooperatively
- **Conceptual/thinking skills:** such as collecting and organizing information, problem-solving, decision making, planning and organizing work, learning-to-learn skills, thinking innovatively and creatively, systems thinking
- **Critical and creative Thinking:** applies the principles and strategies of purposeful, active, organized thinking.

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<sup>7</sup> MOE. (2010). Approach Paper to Soft Skills Education in Nepal. (unpublished). Kathmandu.

- **Personal skills and attributes:** such as being responsible, resourceful, flexible, able to manage one's own time, having self-esteem, good mental and physical habits, open to change, future oriented,
- **Business skills:** such as innovation skills, enterprise skills, marketing skills,
- **Community skills:** such as civic or citizenship knowledge and skills, family orientation, enjoy children, family and spend time with them.
- **Respect traditional wisdom and values** and develop personal characters such as: Loyalty, Commitment, Dedication, Honesty and integrity, Enthusiasm, Reliability, Balanced attitude to work and home life and Motivation
- **Work Ethics:** Values work, posses effective work habits
- **Acting responsibly:** Recognizes obligation to self and others for his or her decision, develop sense of accountability, sensitive to environment, values diversity

### The Challenges

Introducing soft skills in school education is not as easy as it may sound. The first difficulty is associated with preparing appropriate curriculum to introduce soft skills. Since soft skills are mostly an elusive concept, it is quite difficult, if not impossible, to define and standardize it so that it can be implemented as a general subject to all students regardless of their own value system. Moreover, it is also debatable whether soft skills can be introduced as a separate subject or its concepts to be assimilated in existing subject.

Preparing teachers is another hurdle in this effort. Prior to teacher preparation, there is a need to clarify whether soft skills are better educated through pedagogy in school or better if provided as a training package? These clarification leads to determine whether to produce a teacher or a trainer for soft skills.

As it is already discusses, assessment of soft skills level among students is another challenge. Soft skills are least measurable. It has to be seen in student's behavior in the society and in the work places. Moreover, it does not guarantee that one could perform the way s/he was taught. Therefore, evaluation and certification of soft skills do not ensure one's behavior in the workplace or in the society.

### The Opportunities

The SSRP has significantly focused on skills oriented education through both regular and TEVT programs in the country. Increasing foreign and in-country workforce demand has also demonstrated the need of skilled and competent individuals. Revision of national curriculum framework, the TEVT policy, and even the current program and budget has rendered significant emphasis to skills oriented education.

Moreover, there are several projects such as government managed Skills for Employment Project, and EVENT; and a number of I/NGO managed projects are already working in the field of skills based education in Nepal. These efforts have paved the way to making headways for a more systematic and results oriented skills education in the country. The global trends have also become more favorable to Nepali workforce and the opportunities for employment in the region are almost endless.

Some ground works have been already begun in the direction of skills based education. Reform in national curriculum framework, and policies and approach papers has been already developed. The MOE and its development partners have shown their commitments to strengthening the TEVT sector. Therefore, it is the right time to maximize the discourse on education with a focus on skills based and employable education.

## **The Way Forward**

Both soft and hard skills are the two sides of the same coin and therefore our curriculum as well as the program and activities needs to be oriented by this understanding. For the growing employment sector in the region and within the country, a greater focus is needed to stay on and to be competitive. For which, while proactive role is necessary, reform in our approach to employment sector is even more important. As we already know, the employment sector, both foreign and in-country is ever growing. Employment sector, especially the foreign employment sector, whether we like it or not, has become an inevitable source of national economy. This realization must be reflected into or national economic policy which provides the impetus for education policies to be reformed. This requires an overhaul in our current thinking at the national policy making forums which is often guided by bureaucratic and conservative norms. Simply put, if the three principles of good governance – participatory, transparency, and accountability – is strictly followed in national policy making, reform (for the development) no longer remains evasive phenomena. The openness to dialogue, realization of global trends, and receptivity to change are the missing links to our efforts in education development.

What we already know is that the world of work is increasingly becoming competitive, global, and technology driven. Thus, it has become a necessity for both the individuals as well as the organizations to demonstrate certain level of performance in both soft and hard skills areas in order to sustain. In other words, we can assert that soft skill is a must to all in both regular as well as TEVT education. In this respect, the move to include soft skills in school curricula is a welcome effort but at the same time there is also the need to reform TEVT curriculum to include soft skills in its packages. Therefore, the current curricula in both regular (grade 1-12 education) and TVET programs must be reformed with a focus on skills and competencies for each grade and levels of education.

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## Can Nepal Supply Skilled Workers in Foreign Employment?

Rajendra Karki<sup>1</sup>

### Abstract

*Over past 10 years average growth of GDP and industrial growth rate has not increased significantly and employment opportunities in the country have been dipping down. In this regard, majority of Nepalese migrate for foreign employment and present Nepalese economy is survived by remittance of migrant workers. However, most of migrant workers usually migrate to foreign employment without having skill training and they are compelled to work 3 Ds jobs. The demand and supply show that over 93 percent workers are consumed in gulf and East Asian countries and negligible numbers of workers migrate to developed countries. Demands of skill workers in gulf countries are increasing because of fast growing of economy and adapting new and modern technology. In addition, World Cup 2022 and a number of new construction of mega cities as well as infrastructure development indicate the demand of skilled workers in gulf countries. On the other hand, a number of national and international agencies provide training over 50,000 youths each year and this number is increasing significantly. Although thousands of people are trained by government, semi-government and private technical colleges and training centers, availability of skilled workers are limited and higher percentage of mismatch between the demand and supply is seen. For example, where is higher demand, there is lesser production or no production or vice versa. Regarding relevance of curriculum and skill standards for foreign employment, the curricula have been primarily developed to impart various occupational skills to produce skilled workers for the domestic market which can fulfill a need of foreign employment, is still an issue.*

*Although there are number of issues for supplying skilled workers in foreign employment, a number of government, semi-government, bilateral and multilateral agencies are supporting vocational education and training. If there is a proper coordination among training providers, manpower agencies and concerned government authorities, Nepal has capacity to produce skilled workforce for fulfilling demand of skilled workers by destination countries. But there is a gap between vocational training institutes and Manpower Companies regarding producing and supplying skilled workers which should be addressed. At present, there is no clarity on vocational education and training that is provided only for fulfilling demand of domestic market or both domestic and foreign market too. In this regard, the priority of government in vocational education and training should be clear. Therefore, the government should develop a concrete policy and plan to address demand of skilled workforce in both domestic and foreign market so that all concerned agencies will not have difficulties to support it.*

### Introduction

The national economic growth has remained in average 4 percent over a decade and industry sector's GDP growth rate over past 10 years averaged only to 0.3 percent (MOF, 2011). Although 73.9 percent of aged 15 years and over population is employed in agriculture sector (CBS, 2009), the contribution of this sector to GDP was 37% percent in 2000/2001 and 34.9 percent in FY 2010/11 (MoF, 2011). In addition, employment opportunities have been shrunk because a decade long conflict and political instability in the country. However, Nepalese economy is still sustained by remittance of migrant workers. Nepal Rastra Bank data shows a total of NPR 217,903.7 million (US\$ 2.9 billion) on accounts of migrant workers' remittance for the year 2009. This is a huge amount in the context of Nepalese economy which has contributed to of National

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Gross Domestic Product (GDP) by almost 24 %. Therefore, it is apparent that the remittance plays a vital role as the life-blood of Nepalese economy.

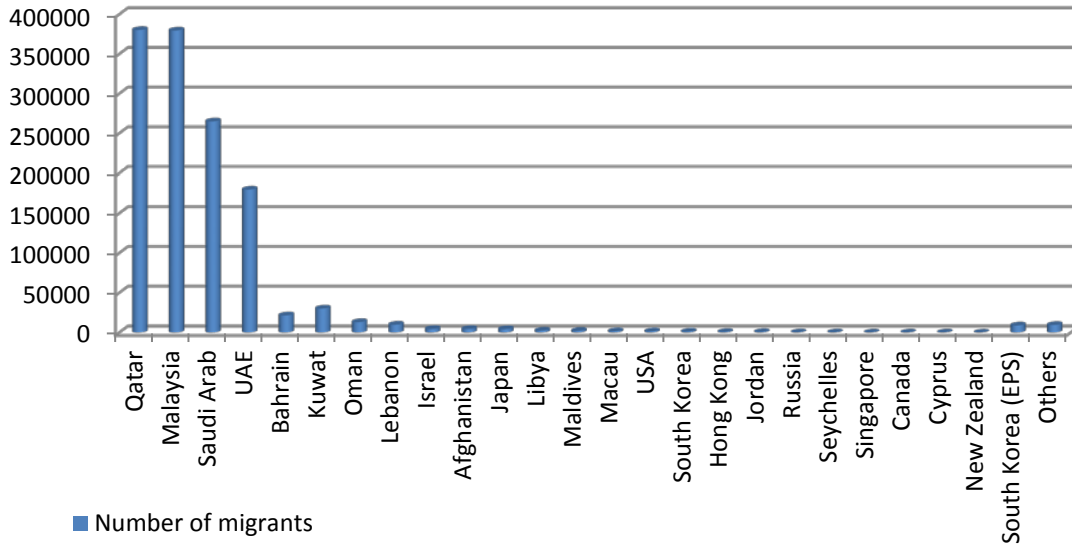
On the other hand, Nepal Labour Force Survey 2008 has depicted that 46.67 percent of total aged 15 and over population (14.4 million) has never attended school. In addition, 10.75 percent, 13.49 percent and 8.87 percent population has completed less than primary, primary and lower secondary education out of total aged 15 and over population respectively (CBS, 2009). These figures clearly indicate that only 20 percent working age population has reached to secondary education. Majority of the population who are not able to reach secondary education have fewer chances to take vocational training or have gainful employment opportunities in the country. In this regard, most of these people are compelled to migrate for foreign employment without having technical or vocational skills although the trend of migration for foreign employment is increasing year by year. For example, 354,716 Nepalese workers have migrated to foreign employment in fiscal year 2067/68 whereas 294,094 workers were migrated in fiscal year 2066/67 ([www.dofe.gov.np/labour-approval-9-np.html](http://www.dofe.gov.np/labour-approval-9-np.html)).

Although the contribution of migrant workers is being significant to survive the national economy, most of the unskilled workers go for foreign employment. For example, 69.1 percent workers were found unskilled while that of semi-skilled and skilled were 27.1 percent and 3.4 percent respectively (NIDS, 2004). Generally, unskilled workers are compelled to work in a low paid job with higher risk hazards. In this regards, Nepalese workers are generally recognized for difficult, dangerous and dirty (3 Ds) jobs due to lack of proper and specific skills in relevant job occupations and trades. This indicates that negligible percent of skilled Nepalese workers migrate for foreign employment. This is a serious issue and also a challenge for Nepal both in producing skilled workforce and supplying skilled workers in foreign employment. Sending a large number of workers may be important, but earning significant amount of remittance is even more important. In this regards, this article will attempt to analyze whether or not Nepal can supply skilled workers in the foreign employment.

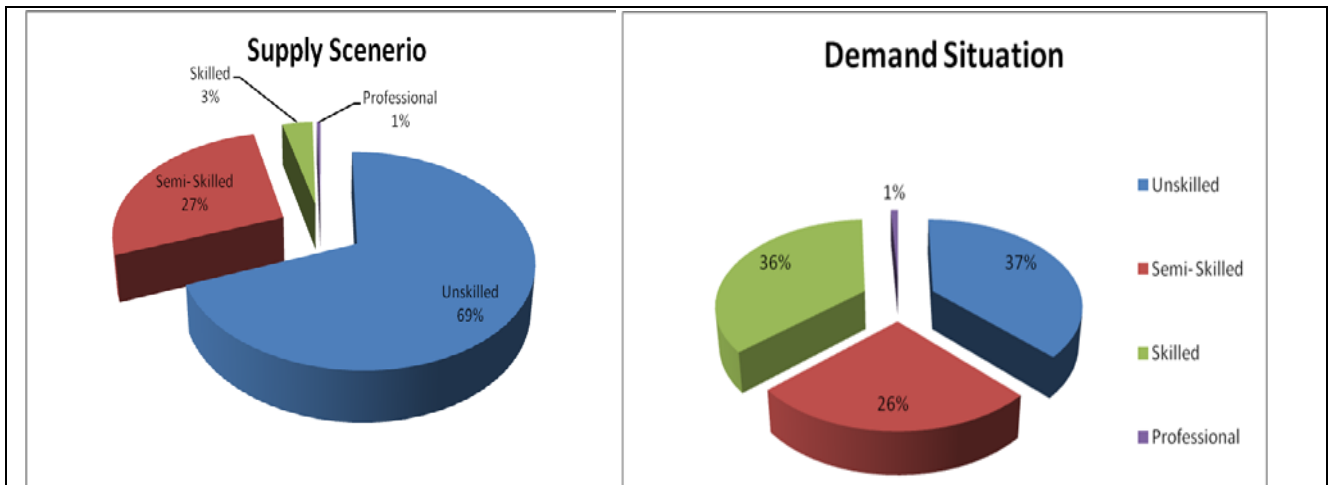
### **Supply and Demand of Skilled workers**

Government of Nepal has provided official permission in 108 countries for foreign employment including Iraq, but at present Iraq is not allowed to go for it ([www.dofe.gov.np/labour-approval-9-np.html](http://www.dofe.gov.np/labour-approval-9-np.html)). According to Department of Foreign Employment, 1.32 million Nepalese workers have already migrated to various countries for foreign employment from fiscal year 2063/2064 to 2067/68 (ibid). Among the permission granted countries, the following chart clearly shows that the highest number of Nepalese workers migrated to Qatar (28.75%), Malaysia (28.70%), Saudi Arab (20%), United Arab Emirates (13.60%) and Kuwait (2.28%) respectively (ibid.) which is almost over 93 percent of total supply whereas negligible number of workers migrated to developed countries such as USA, Canada, Japan, New Zealand and others.

Number of migrants from FY 2063/64 to 2067/68



A study done by Research and Information Division, CTEVT has found that higher percentage of demand came from five countries UAE (23.2%), Saudi Arabia (22.1%), Qatar (21.1%), Malaysia (17.4%) and Kuwait (11.6%) respectively which is almost 94% of total demand (CTEVT, 2011). The findings have clearly indicated that construction sector is highly potential sector for foreign employment where the highest percent (48.5%) of demand was received. Similarly, general service (28.9%), mechanical (12.1%), tourism (4.7%), automobile (2.6%) and electrical (1.8%) trades were followed by the demand respectively (CTEVT, 2011a). These figures indicate that high percentage of demand was received in engineering related trades which count over 65 percentages.



The study has further analyzed according to their level of competency such as unskilled, semi-skilled and skilled and highly skilled or professional. The outcome of the analysis shows that there is a high demand for

semi-skilled and skilled workforce which consists almost 63 percent (CTEVT, 2011a) whereas only 30 percent skilled workers were supplied and 69 percent unskilled workers supplied (NIDS, 2004).

### **Emerging Trends of Demand for Specific Trade Skills**

Opening of new job opportunities in the destination countries has been one of the pull factors for Nepalese workers to migrate in foreign employment. As analysis of demand and supply of Nepalese workers in foreign employment indicate that Gulf and East Asian countries are highly potential for employing Nepalese workers. These countries are investing a huge amount in construction project further to boom their economy. The greater volume of petroleum resources (56% of world potential oil reserve) of Middle-east is another main reason for accumulation of large sum of migrated workers in five gulf countries (Kuwait, Bahrain, Oman, Qatar and UAE) ([http://en.wikipedia.org/wiki/File:World\\_Oil\\_Reserves\\_by\\_Region.PNG](http://en.wikipedia.org/wiki/File:World_Oil_Reserves_by_Region.PNG)). Moreover, large volume of oil reserves is not only the indication of massive excavation, purification and distribution mechanism, but it also points out industrialization, urbanization which requires huge amount of investment in both public and private buildings and other infrastructures. All of these activities and investments in economy require gigantic size of workforce. The employment in gulf is heavily dominated by private sector. Out of the total employment, private sector employment in Kuwait occupies 70 percent volume; likewise the respective percentage is 83 percent in UAE. In addition, private sector jobs are widely occupied by foreign workers and the share of national worker in private employment is assumed not more than 2% (Khorshid, 2000: cited in Technological Change and Skill Development in the Arab Gulf Countries). Therefore Nepalese workers can be benefited by employment market of Gulf countries.

The demand of skilled workers is also increasing in gulf countries because of mega event. For example, Qatar is going to organize mega event of football "World Cup 2022" which will require a large number of semi-skilled and skilled workers. For this to achieve, US\$25 billion dollar will be invested to construct nine new football stadiums and expand the capacity of existing two with the average capacity of 86,000 audiences at a time. Qatar will build these stadiums on the solar based air-conditioned technology to reduce the temperature by 20 degree Celsius. It is evident that the existing hotels, restaurants and other accommodation and recreational facilities will not be sufficient for that. Therefore, government of Qatar also plans to increase the hotel facilities by double. This plan does not include private sector investment which may grow larger than government investment. Beside the above mentioned infrastructure, other US\$ 25 billion is proposed to be invested in expanding and maintaining railway infrastructures and metro networks. In addition, a bridge connecting to neighboring country Bahrain, which is supposed to be the longest bridge in the world, is also in the plan ([http://english.ahram.org.eg/News\\_Content/3/15/1221/Business/Region/Qatar-plans- infrastructure-projects-ahead-of--Worl.aspx](http://english.ahram.org.eg/News_Content/3/15/1221/Business/Region/Qatar-plans- infrastructure-projects-ahead-of--Worl.aspx)).

Another gulf country, Saudi Arabia is going to construct a number of big cities as well as other construction with the huge amount of investment. Proposed cities for construction are (i) King Abdullah Economic City, (ii) Jazan Economic City, (iii) Tabuk Economic City and (iv) Ras al-Zour Economic City which require US\$ 40 billion, US\$ 30 billion, US\$ 30 billion, US\$ 25 billion investments respectively (<http://www.deloitte.com/assets/Dcom-Lebanon/Local%20Assets/Documents/Real%20Estate/GCC%20PPT%20CONSTRUCTION%20%20V2.pdf>). It has been expected that almost 500,000 workers will be required for constructing these cities and project ([http://www.rolandberger.com/media/pdf/rb\\_press/Roland\\_Berger\\_thinkact\\_content\\_20060701.pdf](http://www.rolandberger.com/media/pdf/rb_press/Roland_Berger_thinkact_content_20060701.pdf)).

Unite Arab Emirates is a small country with having a population of 4.7 million which has begun to invest a huge amount in construction project. For the construction work, UAE has marked US\$ 457 billion of investment up to year 2015. The five year investment plan unveiled by Abu-Dhabi's Department of Transport includes several ambitious projects e.g. country's high-speed railway between Dubai and Abu Dhabi with US\$ 68 billion investment. In this regard, Business Monitor International (Abudhabi) has estimated that the growth rate in construction sector of UAE is 9.6 % ([www.ventures.com](http://www.ventures.com)).

Keeping view on these development plans of most of Gulf countries will demand large number of skilled and semi-skilled workers in other sectors like mason, carpenter, electrical, mechanical, electronics and plumbing in the following years. Doubling the hotel capacity means also doubling the existing workforce in hotel restaurants. The construction of hotel will require more skilled and trained workers in various fields like chef, cooks, waiters, bar-tenders, front managers, guides, etc. Keeping view on the mega events, there will be a need of large number of security guard which also falls one of potential skills (Maxwell Stamp Limited, Bangladesh, 2010).

Regarding Malaysia, the Malaysian government has imposed a policy to receive only unskilled workers from other countries. The government also does not permit to private companies to recruit skilled foreign workers. Therefore, Malaysia will not be destination for supplying Nepalese skilled workers. In addition, the government has imposed high levy to foreign workers which has resulted high migration cost against low level of income (ibid).

### **Current Production of Skilled Workforce**

In Nepal, universities are producing highly skilled workforce through bachelor and master level programs in various disciplines such as Engineering, Medical, Forestry, Agriculture, Hotel management and Accountancy. Altogether 26793 students were enrolled in Engineering, Medical and Forestry Science and in FY 2008/09 from Bachelor to Master level (UGC, 2011). A negligible number of highly skilled workers are demanded in foreign employment although Nepal has production capacity of highly skilled workers to fulfill demand. But the willingness of highly skilled workers going for foreign employment is another issue especially for gulf countries.

Council for Technical Education and Vocational Training (CTEVT) is a leading agency for producing skilled labour force in Nepal. CTEVT is responsible for policy formulation, coordination, quality assurance and program implementation. CTEVT offers both long-term technical and vocational education and short-term vocational training programs. At present, CTEVT has of 12811 students and 12502 students yearly intake capacity for TSLC and Diploma level respectively in engineering, health and agriculture trades (CTEVT, 2011). The entry requirement for TSLC program is SLC pass with a length of 15 months course, whereas for students with grade 10 pass the course is offered for 29 months. The entry requirement for 3 years' diploma/certificate level is SLC pass (CTEVT, 2011b).

Regarding vocational training programs, CTEVT, government departments and authorities (Cottage and Small Industrial Development Board-CSIDB, Department of Cottage and Small Industry – DCSI, Vocational Training and Skills Development Training Center -VTSBTC, Nepal Academy of Tourism and Hotel Management -NATHM) offer in various job occupations. VTSBTC, CSIDB and DCSI primarily offer training programs which are livelihood related such as candle making, bamboo crafts, bag making, Allo (nettle) fiber processing, hosiery, food and fruit processing, etc (CTEVT, 2011c). However, such training addressing of survival needs, do not correlate with foreign employment.

In addition of government department and authorities, vocational trainings are offered by various public and private training providers in support of bi-lateral and multi-lateral agencies. These supporting agencies have supported for vocational training programs through government and non-government agencies in various trade occupations such as agriculture, civil, construction, electrical, electronics, mechanical, automobile, computer, hospitality, printing, renewal energy, handicraft, health and others (ibid). Swiss Agency for Development Cooperation (SDC), Department of International Development (DFID) and the World Bank through Helvetas/ Employment Fund have supported the vocational training programs. GIZ and UNDP have supported to train to prior recruited and under aged Maoist Army Combatants for their rehabilitation. The World Bank has recently launched the EVENT project to enhance vocational education and training and Asian Development Bank (ADB) has already supported vocational training through Skill for Employment Project under CTEVT. In addition, International Labor Organization (ILO) is supporting vocational trainings



through jobs for peace project for youth employment. Under the financial support of USAID, the EIG-CM project has organized various vocational training targeting to Mid-western region of Nepal. In addition, private training providers also producing semi-skilled and skilled by charging fee (ibid). The following table shows that the numbers of graduates are produced by various national and international agencies including private sectors:

Table 1: Graduates of Vocational Training in Nepal

S. No.	Supporting Agencies and Providers	2008		2009		2010	
		F	Total	F	Total	F	Total
<b>Vocational Training</b>		<b>7521</b>	<b>30283</b>	<b>20653</b>	<b>53595</b>	<b>27112</b>	<b>68470</b>
Government Agencies		<b>3992</b>	<b>12074</b>	<b>7105</b>	<b>17262</b>	<b>15424</b>	<b>32403</b>
1.	CTEVT/Technical Schools#	404	1552	541	1850	678	2120
2.	CTEVT/SEP*						
	Central Level	756	2999	2452	5864	8267	15526
	Community Level			161	419	1701	4085
3.	VTSDTC	2651	6124	3789	7713	4462	8825
4.	NATHM	181	1399	162	1416	316	1847
Bilateral & Multilateral Agencies		<b>231</b>	<b>398</b>	<b>10209</b>	<b>17900</b>	<b>8502</b>	<b>18922</b>
1.	ILO/Jobs for Peace					252	784
2.	UNIRP					6	355
3.	USAID/EIG	167	324	1925	3489	2352	4236
4.	Helvetas/ EF**			8170	14209	5821	13464
5.	GIZ/STTP	64	74	114	202	71	83
Private Sector		<b>3298</b>	<b>17811</b>	<b>3339</b>	<b>18433</b>	<b>3186</b>	<b>17145</b>
1.	FNCCI	395	793	380	775	340	633
2.	Private Training Institutes	2903	17018	2959	17658	2846	16512
Grand Total			45640		78036	96551	
<b>Livelihood Training</b>		<b>7422</b>	<b>16830</b>	<b>12682</b>	<b>26668</b>	<b>12687</b>	<b>29239</b>
Government Agencies		<b>7065</b>	<b>16279</b>	<b>12058</b>	<b>25848</b>	<b>11857</b>	<b>28119</b>
1.	VTSDTC	7065	10024	8913	14028	8843	13737
2.	CSIDB			3145	5023	3014	4492
3.	DCSI		6255		6797		9890
Private Sector		<b>357</b>	<b>551</b>	<b>624</b>	<b>820</b>	<b>830</b>	<b>1120</b>
1.	FNSCI	357	551	624	820	830	1120
<b>Grand Total</b>		<b>14943</b>	<b>47113</b>	<b>33335</b>	<b>80263</b>	<b>39799</b>	<b>97709</b>

Source: CTEVT (2011). A Profile of National Vocational Training Providers, 2011. Sanothimi, Bhaktapur.

\*Additionally, CTEVT Technical Schools (including annex and affiliated) have yearly intake capacity of 12291 students in TSLC and 12478 students in Diploma level.

## Gap Analysis

### Demand and Production

Although supply of skilled workers in foreign employment needs to be analyzed and study, the findings of the study done by the CTEVT show that construction sector is one of the prominent sectors for foreign employment which demands various types and level of semi-skilled and skilled workers (CTEVT, 2011a). The study has presented the following 15 highly demanded job occupations in various occupational trades:

Table 2: Demand Semi-Skilled and Skilled workers in foreign employment from July to December, 2011.

Occupational Trades	Number of Demand	Occupational Trades	Number of Demand
Security Guard	4890	Rigger I	362
Mason	2096	Heavy Driver	882
Steel Fixture	1331	Plumber	353
Carpenter	2010	Welder	322
Scaffolder	1044	Grinder	464
Electrician	1112	GCC Driver	316
Painter	510	Spray Painter	225
Fabricator	563		

Source: CTEVT (2011). A Study Trends Analysis of Foreign Employment and Skill-gaps in Nepal

There are always raised questions whether Nepal can supply skilled workers in foreign employment or not. In this regard, Nepal has produced over 50,000 semi-skilled and skilled workers or graduates through vocational training for the last three year. In recent years, this trend has been increasing. For example, various agencies and training providers have produced over 97,000 graduates including livelihood training in 2010 (see table 1). Therefore, Nepal has capacity to meet demand of skilled workers for foreign employment. The available data on the trained skilled workers generated from different sources indicates that quite a big number of skilled workers have been developed by different agencies. However, the demand and supply part of semi-skilled and skilled workers indicates that there are certain mismatch between the demand and supply. For example, the table 2 shows that 4890 workers were demanded in security guard by destination countries from July 2011 to December 2011 whereas Skill for Employment Project produced 400 people in 2009 and private training providers have graduated 193 and 170 people in security guard in 2009 and 2010 respectively (CTEVT, 2011a) and other agencies did not produce a single number of graduates in security guard which cannot meet demand of destination countries. The same situation is happening in other many job occupations such as steel fixture, scaffolders and others. On the other hand, there are some highly demanded trades or job occupations in foreign employment where graduates are not produced in Nepal. For example, 362 people were demanded within six months of 2011, but training providers do not trained people in the respective trades (ibid). In addition, there are many trades where training institutes are producing more number of graduates rather than the demand. For, example, the demand of 353 plumbers was received by the destination countries during six months of period, but SEP and Helvetas/Employment Fund have produced 893 and 398 graduates in plumbing trade (ibid) which number is double than demand. These examples clearly indicate that there are some trades where graduates are produced more than demand of foreign employment.

There are many trades and job occupations where a large number of graduates are produced each year, but the demand from destination countries is received in negligible numbers. For example, Nepal produces almost 4000 staff nurses (CTEVT, 2011b) whereas a negligible number of demand of nurse was received with the six months of period in 2011 (CTEVT, 2011a). Therefore, certainly there is a great mismatch between the demand and supply which is essential to be addressed.

More importantly, the high percentage of unskilled workers is migrated against the semi-skilled and skilled workers. Majority of the semi-skilled and skilled workers do not have either basic access on foreign employment or do not want to go abroad for it. Another reason is that majority of the workers are consumed within the domestic market, and thirdly the skills they have acquired on their respective trades do not qualify for destination countries.

## **Curriculum and Skill Standards**

CTEVT is the national body which is mainly responsible for coordination and quality assurance. In this regard, CTEVT has developed 222 curricula and 230 skill standards in various trades and sub-trades by the end of June 2011 (CTEVT, 2011d). In addition, government authorities and departments also develop a number of curricula for short-term vocational and livelihood trainings. Besides, some other agencies and private training providers also develop their own curricula for vocational trainings. However, many bilateral and multilateral agencies and some private training providers have usually used CTEVT's curricula and they have made mandatory for their graduates to take skill testing examination for certification and formal recognition.

Regarding relevancy of curriculum and skill standards, some curricula are relevant as national market needs and the content of curricula can meet skills requirements if it is properly delivered. For example, the curriculum developed by CTEVT for auto painter does not have any skills gap whereas the curriculum for plumbers, welder, electrician, scaffolders and mason need to be revised to meet the requirement of national and international market. Regarding plumbing, there is a need to include PVC, PRC and copper for plumbing which has been introduced for many years in the market. Similarly, curriculum in masonry has been designed as per domestic needs where cement and brick are primarily used to construct walls whereas in the most destination countries are used wall blocks (CTEVT, 2011a).

The relevance of curricula for foreign employment is the primary issue rather than the capacity of production. The available curricula have been primarily developed to impart various occupational skills to produce skilled workers for the domestic market. For example, considering the level of domestic market, certain safety measures have been incorporated in the curricula. But the safety measure part that is required for migrant workers do differ from the one of domestic market. There is a need to develop additional safety measures and percussion of fire assembly content for the migrant workers in line with nature and size of work environment (ibid).

The mismatch between the curricula and skill training standards of CTEVT also surfaces as one of the gaps. For example, most of the curricula for short-term vocational training courses are designed for a minimum of 360 hrs whereas skill standards require only 160 hrs for level one (ibid). At the same time, other agencies including government departments and authorities which design the curricula on their own do not maintain the uniformity as per national skill standards. This indicates that there is certain imbalance between the curricula and skill testing standards. Therefore, mismatch and imbalance between curricula and skill standards are needed to address.

More importantly, there is certain gap between the classification of unskilled, semi-skilled, skilled and highly skilled workers. For example, the present ranking system of the technicians which has been devised by the National Skill Testing Board (NSTB) are primarily directed to provide recognition for the skills in line with the government classification i.e. level II equivalent to Non-gazetted II, Level III non-gazetted I and Level IV gazetted III. At the same time, the labour act has classified unskilled, semi-skilled, skilled and highly skilled workers. This has created certain difficulties to private sector for providing employment for technicians by measuring the standards in line with skill testing certificate. These two separate controversial classifications of skills done by labour act and CTEVT act have created confusion. Therefore, classification of skill testing certificate should be similar to labour act and vice versa.

## **Opportunities and Challenges**

A number of government, semi-government, bilateral and multilateral agencies are supporting for vocational education and training. Recently, government and the World Bank have jointly launched the Enhanced Vocational Education and Training (EVENT) project to strengthen vocational education and training. ADB, ILO, USAID, DFID and SDC and others have been supporting in vocational training for many years. Besides,

government, bilateral and multilateral agencies; a large number of private training providers offer vocational training in various occupation and trades. Each year private providers produce over 18000 graduates in vocational training (CTEVT, 2011c).

Under universities, there are over 50 colleges which are producing bachelor and master level graduates in engineering, medicine, agriculture and forestry science (UGC, 2011). The graduates of technical education can work as highly skilled workers in the destination countries. Similarly, almost 416 technical schools and colleges under CTEVT are also producing skilled workforce through TSLC and Diploma level programs (CTEVT, 2011b). The production capacity of CTEVT has also been increased because of establishment of polytechnic institutes and expansion of Annex program each year. In this regard, Nepal has adequate capacity of producing skilled and highly skilled workers, but demand of skilled and highly skilled workers is not as big as unskilled and semi-skilled workers.

Government introduced Technical Education and Vocational Training Skills Development Policy, in 2007 which has become a milestone in vocational training in Nepal. The policy has envisioned for massive expansion, inclusion and access and integration of vocational training. The policy has clearly stated, " all citizens residing in different areas of the country who are interested to obtain training but cannot pay for or access to it, may participate in entry training in the beginning; a policy will be pursued to provide different types of scholarship to these groups as financial assistance so as to encourage such groups in obtaining productive employment".

Although various agencies and training institutes produce a large number of skilled workers, manpower agencies which are playing vital role for sending workers in foreign employment are not being able to select and send skilled workers. The main reason is that there is a large gap between vocational training institutes and Manpower Company regarding producing and supplying skilled workers. On the other, most of the vocational training institutes are producing their graduates to fulfill the need of national labour market. Therefore, they are not usually aware and update about new and modern technology which has already been used in destination countries. Therefore, vocational training agencies do not update their curricula to match the technology of destination countries. On the other hand, a negligible number of manpower agencies are looking for skilled workers for foreign employment. Most of them do not want to wait for long to send skilled workers by searching various technical schools and colleges. More importantly, even most of manpower agencies do not aware about actual skills gap between production of graduates by training institutes and demand of skilled workers in destination countries. Some manpower agencies have useful bits of information and knowledge about skills gap, but they are also being unable to lobbying for upgrading and revising curricula to fulfill demand of destination countries. Therefore, it is essential to build harmonious relation between/among training providers and manpower agencies.

At present, graduates of vocational training have been increased because of various project supported by bilateral and multilateral agencies. Project based production may not last if donors stop their support. Some government departments and authorities have producing a large number of graduates especially in livelihood nature of training. This type of training is very short duration from 7 days to 6 weeks which cannot be relevant for foreign employment (CTEVT, 2011c).

Finally, the question is whether vocational education and training is provided only for fulfilling demand of domestic market or foreign market too. In this regard, the priority of government in vocational education and training should be clear. Therefore, the government should develop a concrete policy and plan to address demand of skilled workforce in both domestic and foreign market so that bilateral and multilateral agencies will not have difficulties to support it. In addition, non-government and private sector will not be supportive to produce skilled workforce as required.

## **Conclusion**

Because of a decade long conflict and political instability, overall economic progress has been slowed down and employment opportunities are also shrinking. Therefore, Nepalese youths do not have any alternatives except to migrate for foreign employment. At present, a large number of youths have migrated without having skills. Therefore, they are compelled to work for 3 Ds jobs and facing health hazards and accidents. When a large number of skilled workers migrate, remittance earning will be increased significantly as well as risk hazards and accidents will also be automatically reduced because of workmanship and proper skills in their respective trades and job occupations. Therefore, Nepal can increase remittance earning and change 3 Ds recognition by supplying skilled workers for which providing vocational education and training focusing on the type of trades in demand and the technology used in the host countries.

On the other hand, Nepal has capacity of producing skilled workforce through vocational education and training by the support of government, bilateral and multilateral agencies. In addition, there are many non-government and private training providers also produce skilled workforces. But vocational training provided by these agencies and providers are not able to address a need of foreign employment. Therefore, an appropriate vocational education and training policy is essential to develop for producing skilled workers as a need of destination countries. For this purpose, government does not need to invest a large amount of additional resources. Therefore, the government and concerned authorities should develop policy immediately so that vocational education and training providers will begin to produce skilled workforce as required of destination countries. From this, skills gap and mismatch between demand and supply will naturally be solved. Finally, the country will be benefited of remittance earning from more number of skilled migrant workers in foreign employment.

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## Promoting Employment Outcome through Occupational Standard Focused Training

Lokendra Prasad Poudyal, Ph.D.<sup>1</sup>

### Abstract

*Employment opportunity in the formal sector is low in Nepal (as represented by more than 75 percent employees engaged in the informal sector). The jobs are largely concentrated in major cities. Therefore, the job seekers migrate from rural to the urban and semi-urban areas for work. Around 1.000 job seekers fly abroad for foreign job every day. This situation reveals greater need of creating new employment opportunities and building capacity of the workers in the country. If the graduates are not trained in an occupational standard responsive way, they will not be absorbed by the employment market. For a best-fit to ensure production efficiency, the tasks expected to be performed in the enterprise should correspond to the skills acquired by the training graduates. In view of this, the worth of training programme can be proven only by their contribution to translate the occupational standards into skills development training standard for ensured access to employment.*

*Nepal's growing unemployed labour situation indicates that the country needs at least 3 percent annual increase in the employment opportunities. Such opportunities should be accompanied by skills development training for productive results. To meet this target, the country has to diversify its potential trades and also mainstream the disadvantaged groups into the employment process. It is also necessary to promote the employment offers with support for add-on services such as refresher training and access to credit services for the self-employed graduates. The training graduates should be encouraged to create market influence of their products with the operation of enterprises collectively. Training activities should be made occupation-friendly. They should be planned and implemented with employment-oriented focus. Database should be established on labour market situation. Attempts should be made to export skilled workers with training upgrades, while substituting the import of foreign labour at the same time.*

### Introduction

Nepal is increasingly facing employment problems against its ever increasing population. To overcome these problems, the country needs to enhance its domestic production and also effectively link its economic activities into the world economy, particularly in the areas of its comparative advantage. As the country has many poor families to serve, creating more employment\* opportunities to put everyone at work should remain its priority.

Given that majority of youths are less educated and have completed their schooling half-way, the country has to train and mobilize them in the development process. It not only helps the country's economy to grow but also contributes these youths to earn their livelihoods. In view of this, the focus of the education system should not only be on the academic areas but also on training for technical skills development for the school dropouts.

Nepal's development is imbalanced across the regions. As a result, the opportunities for employment are concentrated in some areas as opposed to the others. This is one of the reasons for increased mobility of

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unemployed and underemployed labour from one place to another on a seasonal or permanent basis. Given that the opportunities for employment are limited in the hills and mountains, the mobility is mostly one way from these areas to the industrial towns. Some migrants even go abroad including India in the search of job.

The pattern of labour movement is unique between Nepal and India because of open boarder system. The unskilled labour from Nepal mostly goes to India in search of job, while skilled labour from India comes to Nepal for the same purpose. As the skilled labour coming from India is easily available at a cheaper price, the private sector enterprises are not investing sufficiently for the promotion of skills development training in the country. Therefore, the investment for skills development training in the country heavily relies on the public sector and some donor supported projects.

Around 400,000 Nepalese youths join Nepalese labour market every year. Most of them remain unemployed due to the absence of sufficient employment opportunities. Nearly 50 percent of the employed persons in the country work less than 8 hours per day indicating their underemployment status. Therefore, the problem of serving Nepalese employment market is not only to tackle the issue of unemployment but also underemployment.

Over the years, the economic condition of the country has been deteriorating. The Industries are closing down due to occasional strikes, security threats and abductions. The industries lack energy support. The cost of production has been increasing due to soaring fuel prices. Electricity supply has been suffering with 14 hours of load shedding per day. Delayed approval of the Government budget and the absence of elected representatives at the local level are other problems.

### **Sectoral Environment for Employment**

The demand and supply of employment opportunities under various occupations are influenced by the national and international economic trends. They affect the patterns of trade globalization, changes in the demand of quality and quantity of labour force and also desired changes in the technological advancements. These factors further influence the content of skills development training envisaged under different job standards.

Inviting foreign investments has remained one of the priority agenda of the industrial policy. It requires establishment of production efficiency for competitive markets. Such requirement makes the scope of skills development training more challenging and wider because the industries want to develop their human resources in line with the production quality desired by the markets worldwide.

The economic growth strategy of Nepal has been emphasizing agriculture as a priority sector for the past many years. Its performance was better in the past till the country had potentials for expanding cultivated areas for greater volume of production. However, this kind of extensive character has almost reached to saturation point because of limited cultivated area in the country. The sector now needs to improve application of technologies and also take benefits of ecological variations for enhanced productivity. For the creation of more employment opportunities, it needs to promote value chain activities. These strategies work better only if the cultivated area and the agro-processing areas have access to basic infrastructure facilities. Such facilities are more important especially for the rural areas in the hills and mountains.

Nepal's industrial policy has been emphasizing import substitution since 1992. It aims to protect domestic industries for export promotion. It emphasizes mobilization of increased investment from the private sector. Though these emphases correspond to the central objective of the industrial policy, the country lacks its comparative advantage position because of its higher cost of production. Its market is dominated by China's and India's mass production.

Another potential sector of development in the country is tourism. This sector has received priority since the formulation of Nepal Tourism Master Plan in 1972. However, it is still lacking effective implementation due to



the absence of coherent policies in other inter-related sectors/sub-sectors, one of them being investment in infrastructure development.

Hydropower is another potential sector of development in Nepal. Its prospect of producing electricity is around 83,000 Megawatt. However, the country has been facing acute shortage of power due to the production of only about 639 Megawatt at present. This situation has reduced potential expansion of the scope of many industries.

Nepal's economic condition is instable. There is a wider gap between the collection of revenue and actual expenditure. The export sector market is confined to only some products in the absence of product diversities. As a result, the export earnings are volatile. The rate of domestic savings is low. Dependency on the external assistance is increasing. The Government is not successful in attracting foreign investments due to the problems of insecurity, political turmoil, socio-ethnic conflicts and rampant corruption, which are the factors adding fuel to the socio-economic instabilities in the country.

The national development plans implemented in the past emphasized increase in the employment opportunities as one of their priority areas. However, they failed to produce effective results, as the Government failed to internalize instruments related to labour intensive objectives.

More than 75 percent employed youths in Nepal are engaged in the informal sector. They are largely associated with small scale enterprises. The size of formal sector enterprises is relatively big but they have limited capacity to expand due to limited market connections. These factors affected scope for expanding new employment opportunities. Most of the enterprises are applying less advanced technologies. They have implications on the level and quality of production and also their marketability.

By virtue of the concentration of more employment opportunities in the cities, the job seekers largely migrate from rural to urban and semi-urban areas. Such movement has created pressure on some areas as opposed to others. Such migration pattern has left the rural areas behind from new development opportunities.

In the recent years, trend has emerged to migrate for foreign job. Official records indicate that around 1.000 eligible workers fly abroad for jobs from the formal channel every day. The number flying abroad could have been even more had there been no social restrictions for the travel of women.

## **Employment as Service to Reduce Poverty**

### **Programmes on Poverty Reduction**

Nepal launched some self and wage employment programmes targeting the poor. Major objective of these programmes was to bring people out of the poverty-trap. The Production Credit for Rural Women was implemented focusing on women entrepreneurs, while the Small Farmers Development Programme was implemented to promote the status of small holders and share croppers. Savings and Credit programmes were implemented to facilitate self-employed entrepreneurs with loan, while the Poverty Alleviation Fund activities were implemented to promote income generating activities in groups. Support was also extended through food-for-work and cash-for-work programmes. These programmes were family welfare focused. All these programmes were implemented from supply perspectives. As a result, they could not fully address the demands of poor for their versatile self-development. Therefore, the impact of these programmes on poverty reduction was limited (ILO, 1997).

As the growth of Nepalese economy has remained almost stagnant for the past many years, it failed to absorb the glut of unemployed labour with employment in the market. Such situation prevented workers from receiving gainful wage rate as they had to compete for survival even at a lower wage rate. Such rates could not bring poor people out of their poverty trap. Instead, their situation even declined due soaring price of consumables. The lower wage rate prevailed not only in the formal sector but also informal sector. The poor rates were influenced by both arbitrary administrative norms as well as market forces.

The NPC claimed decrease in the incidence of poverty recently, which is largely caused by growth of remittance from migrant workers than through any expansion of domestic production. However, there was a setback in this source due to recent economic recession. In the countries like Libiya, Baharain and Israel, the job of the migrant workers was on risk due to increasing conflicts

### **Information Base for Planning**

Nepal maintains employment records for managerial, technical and unskilled job categories in the formal sector. They largely cover information about the public sector with some medium and big size industries. This is incomplete due no records on the large proportion of employees engaged in the informal sector. Such situation has implications on the design of interventions for new employment opportunities.

As technological improvements and demand for jobs in the market keeps changing, predicting the occupational demands too far may not be accurate. Therefore, for practical reasons, it is useful make the forecast for the medium term (Fretwell, 2001).

Establishing “data bank” about the job opportunities could be one of the useful sources of employment planning and implementation. However, such establishments are often costly and can be justified only if there are greater number of enterprises and job seekers as information users contributing to such information base. Experience of the developed countries in this regard indicates that only about 25 percent of the vacancies in the job market are listed in such “data bank” (Fretwell, 2001). Other listings are often skipped due to delayed access to information and low interest of the enterprises and job seekers in accessing such service.

### **Designing Training with Focus on Occupational Standards**

It is the general assumption under all education system that those who graduate from schools and colleges will be successfully accessing job. However, this is not true as large number of them hang around without job even after completing education and training. There are also youths, who leave schools before completing their studies. Such school dropouts represent larger group of the unemployed mass. Taking these situations into consideration, it is necessary for the country to make its education and training system more applications oriented. The school dropouts should be trained on employment-oriented skills.

### **Occupational Standard as a Proxy to Workers’ Role**

Occupational standard provides basis for comparing qualification of a person for entry into a new job. It contributes to establish best-fit between the expected tasks to be carried out by the employed person and his/her actual competence. On the basis of occupational standards, the employers know what competence of a person they prefer to recruit. It guides to make the training programmes job-oriented. When demand for a type of quality skill and knowledge preferred by the enterprise is known, the training institutions can tailor their courses accordingly. The occupational standard helps training providers to link their training activities with the job opportunities in the market.

Determining components of training for practical purpose becomes difficult if there is no well-defined occupational standard. At such situation, the training providers alternatively identify the demand for jobs by conducting RMA.<sup>1</sup> It examines expected tasks to be performed by the graduates after training (OECD, 2000).

With occupational standard, the role of workers in the labour market (e.g. as plumber, carpenter, shoe maker etc.) can be clarified. They contribute to make the sector specific functions distinct (e.g. construction

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<sup>1</sup> For the purpose of this paper, the term “occupation” is defined as a category of group of jobs (e.g. construction sector occupation, hospitality sector occupation etc.). “Job” is defined as a hired service for undertaking specific task. The occupational standards are comprehensive covering the job categories into its umbrella.

engineer, hospitality manager etc.). Most of the countries determine their occupational standards by applying ISCI<sup>1</sup> norms.

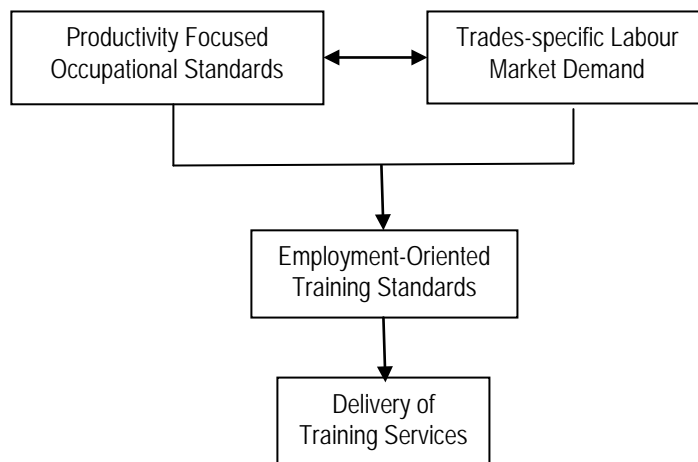
### **Training, Occupational Standard and Labour Market Linkages**

Occupational standards relate to contemporary techno-economic changes prevailed in the market. They occasionally demand new skills due to technical updates. The training providers should remain alert about such changes and identify their training priorities by selecting subject areas of training for highly demanded skills. They also need to focus on skills update requirements, specialization for better performance, emerging tasks and the proportion of work force that can be absorbed under different categories of trade.

Except for some large scale enterprises, others rarely get involved in implementing training to fulfill their worker needs in-house. Instead, they look for competent job seekers from the labour market. In this process, they look at the capacity possessed by the job seekers against their occupational/job standards and also the credibility stature of the training providers.

If training providers unilaterally develop their courses, they may encounter resistance in the employment of graduates as it might involve the risk of inadequate coverage of occupational standard. To prevent such risk, designing training with the reflection of job-specific standards is necessary. Such attempt demands harmony among the key stakeholders for ensuring greater employability.

**Chart - 1: Ensuring Harmony between Occupational Standards and Training Services**



The training programmes can prove their worth only when they are made relevant to the world of work. With the reconciliation of occupational standards in training, the interest of enterprises towards the graduates can be attracted. Therefore, it is always useful to link the training with occupational standards as well as labour market demand.

<sup>1</sup> International Standard Classification of Industries (ISCI), UNIDO.

Designing training becomes difficult where occupational standards are not defined. The hit and trial method adopted in such situation might involve the risk of gap between the demand and supply of skilled labour in the market despite availability of the training graduates who are willing to work.

The application of occupational standard is relatively easy in the formal sector as compared to informal sector. This is mainly because the informal sector is not well organized. It also involves greater variation in the working conditions. At such situation, designing universally acceptable occupational standard becomes difficult (Fretwell, 2001), if not impossible.

### **Training for Employment Outcomes**

The training programmes can be considered effective only when they can establish connection between the skills earned by graduates with employment opportunities. In view of this, Nepal has been implementing some donor supported training programmes such as Skills for Employment Project supported by the Asian Development Bank; Job for Peace Project supported by FAO; Employment Fund Project supported by DFID, SDC and World Bank and EIG Project supported by USAID. Further, there are also economic development programmes supported by other agencies (e.g. GIZ). Likewise, the CTEVT has also been running technical training programmes through its seven technical schools located at different parts of the country. Besides these, there are many other private sector training providers involved in the implementation of training in affiliation with CTEVT.

Experience gained from various training programmes over the years indicates that one of the ways of making the training programme more employment-oriented is to harmonize its outline with the job specifications. The job specifications pave way for determining performance (i.e. what an employee is expected to do). Such specification, when linked with the components of learning skills (as per the training curricula) contributes to productivity of the enterprise. These specifications are necessary but not the sufficient conditions to ensure employment. Employment also depends on other conditions such as opportunities for the application of skills; capacity of trainers to impart skills, learning environment (e.g. access to support materials, tools, equipment and consumables). More importantly, the effectiveness of training from the employment outcome perspective also depends on the willingness of enterprises to absorb the graduate into work after graduation.

Occupational standard is a basis for establishing effective relation between the skills acquired by workers and production efficiency. With training activities focused on occupational standards, the graduates can earn competitive wages (Mansfield and Schmidh, 2001). When training meets basic components specified under the occupational standard, it assures potential for a comprehensive coverage of task to be performed by the employee. At such situation, the enterprises would be motivated for applying proper wage rates.

Defining universal occupational standard in Nepal is difficult because the growth of industrial sector in the country is still at its infant stage. At such situation, different enterprises may want to apply different occupational standards. Therefore, designing tailor made training in this kind of environment is challenging. One of the ways of simplifying solutions at such situation would be to group similar nature of industries for the assessment of their functional perspectives and analyze what kind of services they need for enhancing production efficiency. The training standard should then be fixed accordingly.

The scope of employment largely depends on what opportunity the enterprises can create. They know what types of skills are needed for generating their quality products. Matching training with such requirement can be considered stepping stone to take forward the enterprises towards this goal.

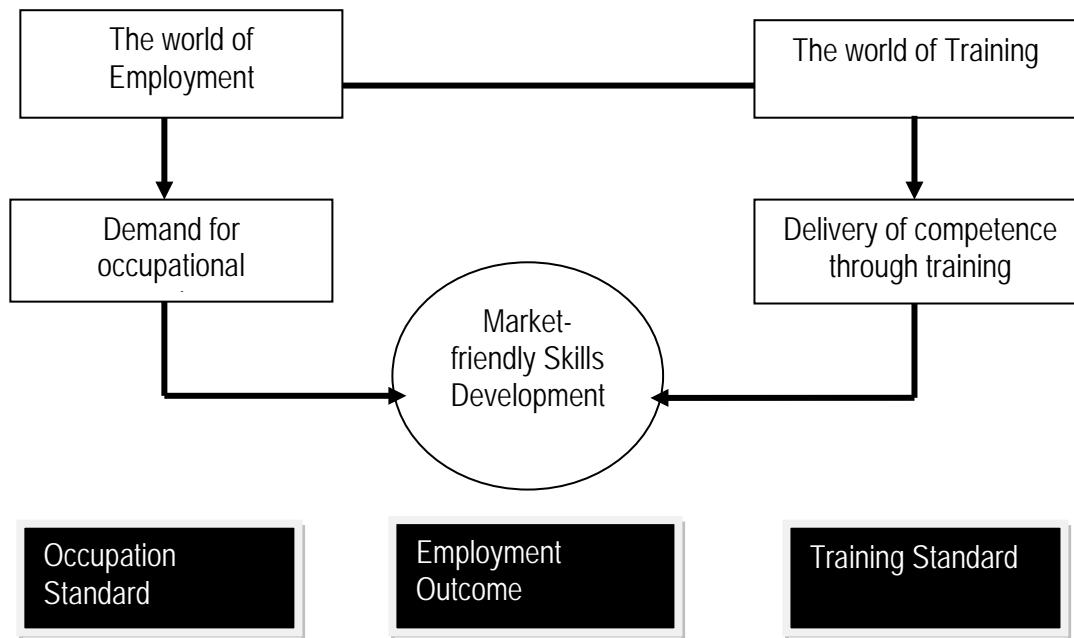
If training institutions are clear on what their trainees should know to meet the specified outcome standards, the graduates can learn and apply these skills at work accordingly. Therefore, it is always necessary to find a best-fit between the demands of skills from the enterprise, while matching relevant supply with development of skills of the graduates from the training provider's side. Without strong linkage between the two, the relation of training with employment outcome cannot be made effective. In view of this, the training providers

should remain always alert about matching the occupational standards specified by the enterprises. In other words, the training providers should translate “occupational standards” into “training standards”. This indeed is a task of translating the concept of “capacity development” into the concept of “employment outcome”.

The employers are always keen to find acceptable level of competence among their workers for effective performance. Employment outcome is a by-product which can be generated through fulfilling both occupational and training standards. In other words, training is a media which contributes to transform the demanded skills into employment outcomes and then production.

Fixing occupational standard represents demand side skills for employment, whereas the design and implementation of training programmes represent supply side. If the training programmes are developed without focus on the occupational standards, they may simply fulfill the supply side than matching the demand side.

**Chart - 2: Occupational Standards, Training and Employment Outcome**



When occupational standards match with training standards, the employability stature of the training provider is enhanced. It becomes one of the motivating reasons for training providers to promote market-friendly courses.

**Conclusion and Recommendations**

Looking at the plight of many poor families, Nepal needs to design inclusive economic policies for the promotion of employment opportunities. Productivity-focused training skills should be imparted. The country needs at least 3 percent annual increase in the employment opportunities to engage the youths entering into the labour force market each year. For its accomplishment, training programmes should be diversified for

skills suitable to a wide range of trades. Some measures that could improve the situation in this direction might include the following:

***Inclusive targeting:*** The employment strategy of the country should focus on the growth of opportunities as well as the patterns of employment, which can provide access of work to the poor and disadvantaged groups. Targeting should be inclusive to minimize gender and social discriminations.

***Market-Focused Trade Diversities:*** New market opportunities should be explored for new trades.

***Employment Friendliness:*** The working environment should be made workers-friendly. Their rights and privileges should be respected in practice. The workers should be provided with competitive wages based on the quality of skills they possess.

***Support Service Add-ons:*** Refresher training should be provided for quality upgrades. Self-employed graduates should be supported with credit and marketing facilities.

***Linkage for Greater Economies of Scale:*** Small industries have difficulties to show their presence in a competitive market. To enhance their economies of scale, they should be integrated with collective work. Wherever possible, they should be linked as subsidiary unit of the big industries.

***Production Focused Occupational Training:*** Training programmes should be production focused. Further, they should be occupational standard friendly.

***Labour Market Database:*** Database should be established and updated on employment opportunities for different trades. Training and employment interventions should be planned and monitored with the use of such data source.

***Change Migration Structure of Labour:*** Welfare enhancing needs of the family is one of the motivating factors for the migration of labour force. Local jobs should be created to control their movements. Skills development training should be organized to promote access to local employment. Currently, most of the workers migrating abroad are unskilled. Attempts should be made to change the status of such migrants with skills training. Policies should be developed to train Nepalese workers for the replacement of current trend of importing skilled labour from India.

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## 'Transfer of Learning': Critical Determinant of Training Effectiveness

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### **Abstract**

*Transfer of training is defined as the extent of retention and application of the knowledge, skills and attitudes from the training environment to the workplace environment. In other words, transfer of training is the degree to which trainees effectively apply the learning from a training context to the job.*

*Recent trends of development in the area of research on transfer of training and major themes of related literature as well as previous studies have been drawn together and summarized in this review to introduce the issue of transfer of training and to trace the emerging trends of research in this important area of human performance support.*

*The increased attention to the transfer of training problem in recent years has resulted in the production and use of significant literature and research outcomes from the contexts of modern workplaces that prevail in the industrialized nations of western culture. However, the amount of actual research on strategies to facilitate transfer of formal employee training is still limited elsewhere.*

*Issues relating to transfer of training include: What causes training success or failure? What characterizes transfer of training? Is transfer of training different from transfer of learning? What are the factors that facilitate or inhibit the transfer process? Why do most training programs and courses fail to transfer? Who is responsible for maximizing transfer of training to the job? What are the possible strategies effective for facilitating transfer of training in the context of formal training of employees?*

*In congruence with the definition and context of transfer of training in the government and non-government organizations, this review focused on related literature and previous studies geared towards the process and strategies of facilitating the application of knowledge, skills, and attitudes from training to job. Existing literature and previous research relating to factors influencing transfer of training were subsequently classified in three main clusters (a) trainee characteristics, (b) training design and delivery characteristics, and (c) Organizational or workplace environment characteristics.*

### **Introduction to the Issue**

Transfer of training is the effective and continuing application, by trainees to their jobs, of knowledge and skills gained in training (both on and off the job). Transfer may encompass both maintenance of behavior, and its generalization to new applications (Broad and Newstrom, 1992). This definition of transfer of training by Broad and Newstrom was found consistent with the purpose of this review.

Transfer of training generally relates to adult education, vocational or professional training or workplace education, and is defined as the degree to which trainees effectively apply knowledge, skills, and attitudes gained in a training context to the job environment (Newstrom, 1984; Wexley and Latham, 1991).

Transfer takes place when our existing knowledge, abilities and skills affect the learning or performance of new skills or tasks. In other words, when learning in one context with one set of materials impacts on performance in another context or with different but related set of materials, then transfer of training has occurred.

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In addition to effective instructional systems design, participative training delivery, and the trainees' motivation to try out new things; it is necessary 'for transfer to have occurred, learned behavior must be generalized to the job context and maintained over a period of time on the job' (Baldwin and Ford, 1988).

Researchers and authors have defined transfer of training as the effect of having learned one activity on an individual's execution of other activities. Activity refers to the application of knowledge, skills, and attitudes from the 'source' to the 'target' context. Outcome of transfer can be studied from three different angles- (a) the similarity of the source and the target situations (identical elements hypothesis), (b) the significance of general strategies for transfer, and (c) support of transfer by situated cognition (Tuijnman, A. 1996).

From these definitions, it becomes evident that behavioral observation is a form of behavior assessment that entails careful observation of a person's exhibited behavior in a particular situation. Methods for assessing changed work behaviors and the specific situations in which they occur, reflect the extent of transfer of training. Such behavior is a process that is influenced by ongoing learning, cognition and feeling; and is surfaced in terms of reactions to the perceived need for changed behavior.

Changed work-behaviors as a result of training interventions indicate transfer. Transfer of training refers to the extent to which trainees apply the knowledge, skills, and attitudes gained from the training back to the workplace (Mandl et al 1991- cited in Tuijnman. A. ed. 1996).

Transfer of training (or lack of it) is a complex process and depends upon the intent or motivation of the learner (trainee characteristics), the workplace environment including supervisory support (organizational environment and culture), and the instructional design as well as delivery features (job relevance) of the training program. Trainees' commitment to use the training, perceived ability to apply, and opportunity to use the new knowledge and skills back at the workplace are all linked with the notion of 'transfer of training'.

Human resource development (HRD) is a critical factor for organizational success. Training is the most common form of HRD that helps organizations to enhance workforce effectiveness and productivity by means of specified learning geared towards performance improvement. However, most training outcomes fail to produce full and sustained transfer of new knowledge, skills, and attitudes to the job.

Transfer is a key concept in adult learning theories because most education and training aspires to transfer. The end goals of training and education are not achieved unless transfer occurs. Transfer does not just happen. It is a process that requires implementation of carefully planned strategies to facilitate positive transfer. It is equally important to minimize the effects of factors that are recognized as barriers or as causes of barriers to transfer.

Transfer partnership requires a balanced distribution of concern for and adequate involvement of trainees, their managers/supervisors, and trainers at all stages of the process – before, during, and after the training program or course (Broad and Newstrom, 1992). Effectiveness of any training program or a course includes evaluation of the extent of transfer of the training outcome at different levels- reaction, learning, application on the job, and organizational results (Kirkpatrick, 1996).

The terms 'transfer of learning' and 'transfer of training' are usually found mutually exclusive in training and development literature. However, transfer of learning relates to generating knowledge and information through education, which refers to the capacity to generalize and learn by analogy. Active learning is an important criterion for transfer to occur. Active learning requires the learner to be involved in the learning process by making conscious effort to learn. The psychological processes of logical thinking and reasoning facilitate the process of recognizing and solving problems in new contexts by applying the solution or analogy from the previously acquired knowledge and skill. This process is also called 'case based reasoning' in transfer of learning.

Performance improvement requires a supportive organizational environment-which consists of factors such as organizational climate, supervisor support, and coworker support for transfer of training to occur and sustain in the form of useful knowledge, skills, and attitudes as measures of improved performance on the job (Rothwell and Sredl, 1992).

Transfer of training has also been classified in terms of 'near transfer' and 'far transfer'. Near transfer of skills and knowledge refers to the replication of the previously acquired knowledge and/or skills in all identical situations based on Thorndike's theory of 'identical elements'. Thorndike published the results of his studies in 1901 and maintained that 'training in one task was not likely to lead to improvement in the performance of another task unless there was a clear similarity between them'. This theory of transfer is based on the belief that previous learning facilitates new learning only to the extent that the new learning task contains elements identical to those in the previous task ( D. N. Perkins and G. Salomon, in Tuijnman. A, ed., 1996).

Near transfer of training often involves tasks that are procedural in nature. These tasks include steps of operation in sequence, and the sequence of steps is repeated every time the task is performed. This type of procedural training is relatively easy to learn and transfer rate of learning is usually high, but the learner is unlikely to adapt such skills and knowledge when confronted with new environment and changed conditions.

Far transfer of training refers to learning new skills or performing new tasks in situations that differ significantly from the situations of original learning. Training conditions, which focus on far transfer, require learners to adapt the acquired knowledge and skills as guidelines to perform or learn in changed situations or new environments. Thus, far transfer goes beyond repetitive application of learned behavior and involves cognition and analogy to adapt to new challenges. This kind of transformation of learning involves analogy and cognition. Transfer of learning from this type of training is difficult but more important than instances of near transfer from the perspectives of higher order learning and retention.

The dilemma is that when one acquires a near-transfer skill it seems to be at the expense of far-transfer for generalization of that skill. Indeed, most training in industrial setting focuses more on procedural and near transfer than on declarative and far transfer, though the importance of far transfer is acknowledged by almost all those responsible for training (D. N. Perkins and G. Salomon- in Tuijnman. A, ed., 1996).

Existing definitions and conceptual frame-works illustrated by literature on transfer of learning or transfer of training do not differ fundamentally. Transfer of learning derives more from a knowledge base and generic competencies, whereas transfer of training is focused on specific competencies (perhaps with some generic extensions) in terms of explicit or implicit use of that knowledge, skills, and attitudes in the world of work. However, both these terms relate to learning, are it with children or adults, and originate from the domain of pedagogic psychology.

Putting together the themes of definitions and types of transfer, it becomes obvious that individuals have a tendency to change their behavior as a result of their perception and subsequently as guided by extrinsic or intrinsic motivation. It also illustrates the fact that the evolution of research on transfer of training draws from theories of motivation, cognition, educational psychology, and learning to learn. Limited studies on transfer of training have focused on conditions, characteristics, nature of transfer and related contextual phenomenon. Transfer of training can serve as a powerful measure of training effectiveness. However, the process of maximizing transfer of training, by means of integrated strategies as characterized by those conditions and mechanisms, including the influence of organizational climate and supervisory behaviors, has not received the attention it deserves in the training literature.

### ***Emerging Trends of Research***

Early research and experiments on transfer were influenced by the work of behaviorist psychologists (Thorndike, Pavlov, Skinner, Bruner, Piaget), and emphasized 'whether transfer did occur'. Contemporary

research in transfer of training is generally aimed at determining 'why' transfer occurs- that is, discovering the exact variables that influence transfer (Ellis, 1965).

The debate between 'training' and 'education' still remained. Those distinctions were comparable with the differences between knowledge and skill, or competence and performance, or knowing and doing. Illustrating the difference between education and training one contemporary author argued that- for most people, demonstrating a causal relationship between education and performance problematic; On the other hand, there is a strong argument that there is indeed, a causal relationship between training and performance (Georges, J. C., 1996). However, for the purpose of this review, the terms 'transfer of learning' and 'transfer of training' do not make any fundamental distinction.

According to Ellis (1965), the focus of the debate should be on issues and problems of transfer rather than on the terms. Transfer of learning problems have been categorized into four major areas:

1. those which deal with research methodology and the more technical problems associated with the measurement of transfer,
2. the specification of the major variables influencing transfer of learning and the way in which these variables influence transfer,
3. the development of adequate conceptual models or theoretical structures for organizing our knowledge about transfer, and
4. the development of an educational technology which is capable of translating and applying our knowledge of transfer to the great variety of educational and training problems that exist.

Research studies of the past century in the field of education and training- including those in different areas of psychology, motivation, pedagogy, and adult learning- have greatly influenced the research tradition in transfer of training. Research traditions in the field of training and development, starting from the classic work of Edward L. Thorndike in 1901 and coming through the century to the year 2004; have made remarkable movements with encouraging achievements. The early behaviorists, including B. F. Skinner and Watson, developed and maintained 'the principle of identical elements' which illustrated that 'training in one task was not likely to lead to improvement in the performance of another task unless there was a clear similarity between them'. Based on this learning potential of adults, commercial and vocational curricula were first introduced in to schools in an effort to make school experience more similar to real work situations.

During the year 1910, Frederick Taylor introduced and popularized 'the principles of scientific management' which emphasized the effect of external stimuli on behavior control of human beings. The whole thrust of behaviorism on training and development maintained that 'the environment controlled behavior, with no input from the forces within the individual'. This principle, in fact, disregarded any effect of intrinsic motivations, feelings, emotions or perceptions.

After 1930, the emergence of other theories of motivation on learning, training, and human performance (including the work of psychologists such as Piaget, Bruner, Maslow, Rogers, Herzberg, Lewin, and Vroom) challenged the behaviorists' mechanical account of human learning and performance.

As a result of this shift from the behaviorists' concern with 'observables' to the cognitivists' concern with the 'role of motivation and internal forces', individuals were identified as 'people who not only reflect but also evaluate and alter their own thinking' (Bandura- in Bigge and Shermis, 1992).

Transfer of training, as the resulting application of knowledge, skills and attitudes in contexts other than that of the original learning, started to be viewed as a result of change in individual's perception. This changing focus of research on transfer of training marked the introduction of 'humanism' recognizing the influence of

motivational and cognitive domains in many aspects of human learning, including behavior modification, training, and performance.

In a more recent and comprehensive account of literature on training evaluation, Marguerite Foxon (1989) presented a comparative description from the relevant Australian, British and American journals published during the years 1970 to 1986. Foxon identified critical themes of those publications in the journals and presented a summary. This summary is valuable for other researchers and could be helpful for the profession of training and development as it seeks to understand trends in the area of training evaluation. Transfer of training resembles characteristics of level-3 (on the job application) evaluation of training (Kirkpatrick, 1959 and 1996).

Presenting a short description of those seventeen years of work on the evaluation of training and development programs, along with an annotated bibliography of evaluation literature, Foxon (1989) has given an account of trends and insights. Since 'transfer of training' relates closely with the evaluation of training in terms of application (or non-application) on the job, it is worthwhile to take note of the important observations and conclusions that have been derived from the study:

1. The literature contains a confusing array of concepts, terminologies, techniques and models. 80% of the literature reviewed does not define or clarify the term evaluation,
2. Many imply their definition when they outline the perceived purpose,
3. Nearly one quarter of the articles neither present nor imply any specific purpose for evaluating training,
4. The literature is cluttered with suggested evaluation techniques ranging from simple questionnaires to complex statistical procedures. Often the one technique is presented under several different names,
5. More than 80% of these articles lacked evidence of background research and many failed to offer practical applications,
6. Kirkpatrick's four stage model of evaluation is the one most widely known and used,
7. There is an emerging awareness of the need to perform longitudinal evaluation,
8. The review confirms that 'evaluation is regarded by most practitioners as desirable in principle, difficult in practice'.

It is not absolutely clear whether Foxon's (1989) findings and recommendations are validated by hard research or they are simply her impressions and observations from reading the literature. However, the analytical review and concluding remarks indicate an inadequacy of objective research in the field of training and development in general, and in the area of transfer of training in particular.

According to Baldwin and Ford (1988), work environment characteristics of training transfer consist of (a) supportive organizational climate, (b) pre-course discussion with boss (supervisor/manager), (c) opportunity to use knowledge and skills, and (d) post-training goal setting and feedback.

Hence, transfer of training is a process of facilitating efforts to make use of the learned behaviours leading to better results in the post-training context. Training cannot be isolated from the system it supports. In fact the organizational context matters (Quinones, 1995; Rouillier and Goldstein, 1991) and matters in a significant way. To understand transfer of training, it is important to study how training providers and organizations analyze, design, develop, implement and evaluate training.

According to Tannenbaum and Yukl (1992), previous research and scientific literature available on transfer of training with focus on the influence of organizational context is limited. Giving an account of training research

literature of the period from 1987 to 1991, as a contribution to the annual review of psychology (volume 43, year 1992), Tannenbaum and Yukl (1992) clustered the work of training researchers' literature and previous studies into the following main categories:

1. Training needs analysis - including organizational analysis, task analysis and person analysis
2. Design of training – including instructional foundations, performance improvement approaches, mental models, meta-cognition and learning skills
3. Training delivery methods – including simulations, games, high-technology methods and behavior modeling
4. Trainee characteristics – including trainee abilities, skills, motivation, attitudes, expectations, self-efficacy and aptitude treatment interactions
5. Pre-training environment – including environmental cues, signals, trainee input and choice, and pre-training preparations
6. Post-training environment – including transfer environment, and post-training activities
7. Training evaluation – including evaluation design and analysis, and criterion issues
8. Training for specific populations – including management development training, needs assessment for managers, leadership training programs, mentoring, and team training.

In most cases, transfer of training could be the only criterion for the effectiveness of any training program. Level 3 and (and partly level 4) evaluation of training reflect the extent of transfer success. The change of behavior (level 3) is the extent to which a change in behavior has occurred because the trainees attended the training program/course. Such evaluations are performed formally (testing) or informally (observation)- to determine if a behavior change has occurred by answering the question, 'Do people use their newly acquired skills, knowledge, or attitude on the job?' Level 4 is the highest possible level and it measures the training effectiveness by answering the question, 'What impact has the training achieved?' In other words, 'Is it working and yielding value for the organization?' (Kirkpatrick, 1996).

If the knowledge, skills, and attitudes from a training environment are carried over to the workplace environment with a relatively smooth transition, then the training is rated as effective and successful. This is in fact the philosophy and meaning of transfer of training. However, this fact has been overshadowed by mix of work in other aspects of organizational development. Most of the researchers have looked upon transfer as a product rather than as a process.

Although the extent of transfer of training becomes apparent in the post-training environment, the process of transfer consists of strategies, which require attention (before, during, and after) for the training outcome to be effectively transferable. Every strategy needs to be recognized and enhanced as part of the process of transfer of training. A careful analysis of the organizational environment will identify potential transfer facilitators and inhibitors (Foxon, 1993). On the basis of this analysis, trainees can be provided with ways to deal with the inhibitors, even if the organizational environment cannot be modified to promote transfer (Tannenbaum and Yukl, 1992).

Broad and Newstrom (1992) identified three major role-players (1) Trainee/s, (2) Managers/supervisors of the trainee/s, and (3) Trainer/s in the process of transfer of training. Across three phases of time (1) before, (2) during, and (3) after the training, they classified a number of actions and strategies that influence transfer of training. This triangular partnership includes initiations or actions by each partner at each level for effective transfer of training to occur. Subsequently, some researchers applied this 'role-time model' and transfer partnership in the field of transfer of learning in workplace literacy programs (Taylor, 2000), and found that the role-time model was a useful classification system on three fronts:

1. to understand the different dimensions of a transfer partnership,
2. to document the transfer of learning strategies, and
3. to identify the barriers influencing the transfer of learning.

It was validated from the study that the extent of transfer of knowledge and skills from training to workplace depends upon the development of effective partnership among these three main actors.

The concept of partnership remains crucial in the whole process of transfer management strategies- before, during, and after any organizational training program or course (Taylor, 2000).

Salas and Cannon-Bowers (2001), yet in another comprehensive and recent account of development in training research of the past decade, recommended for future researchers, as they contended 'research aimed at studying how organizations implement training and why even the best-designed training systems can fail is encouraged' (Salas and Cannon-Bowers 2001, p.491). That recommendation is consistent with the purpose of this study.

### **Summary and Conclusion**

Existing literature and previous training research relating to transfer of training can broadly be grouped into three categories in terms of coverage and areas of interest. Accordingly, this review classified related literature and previous research on transfer of training into three main categories- trainee characteristics, training design and delivery characteristics, and work-environment and supervisory support characteristics.

1. Organizational or workplace related factors: which includes post-training transfer environment, supervisory behaviors, opportunity to practice, perceived level of supervisor support, elements of organizational climate and culture such as work-place environment - including incentives, feedback and reinforcement of desired behaviours.
2. Training design and delivery related factors: which includes theories and practices of human resource development (HRD) such as training needs analysis, organizational analysis, job/task relevance, design of training, methods and mode of training delivery, technology and instructional techniques.
3. Trainee related factors: which includes factors such as trainee's self-efficacy, ability and skills, goal-orientation, motivation, job attitudes, personality, interests, expectations, commitments, and readiness to learn and apply.

Training literature and previous studies on transfer of training provide evidences to support the claim that training works when it is theoretically driven, focused on required competencies, designed to provide trainees with realistic opportunities to practice and to receive feedback (Salas, and Cannon-Bowers, 2001). There has been an increasing trend of research and thinking in the area of transfer of training.

However, some important questions about transfer of training have not yet been critically examined to explain success or failure of training as interventions or strategies for human resource development. Some of these questions are, for example,

What are the critical factors that facilitate or inhibit the process of transfer of knowledge, skills and attitudes from training to workplace? Which of those factors in the organizational environment can be manipulated to maximize transfer? What are the supervisory behaviors or patterns of behavior that can facilitate the generalization and maintenance of knowledge and skills from a training context to the work-environment? What could be the nature of partnership in transfer management in different contexts?

Despite a century of continued effort and an encouraging trend of development in training research- starting from the early work of Thorndike and Woodworth (1901) and arriving at the present day human performance

technology and self-directed learning, some of the critical aspects of transfer of training, including the influence of workplace and supervisor roles, have not yet been researched thoroughly. Researchers, who contributed to our knowledge and insight in this area of training and development, have often researched effects of factors in isolation, and in fact, in contexts of modern workplaces of the western culture. Transfer of training, as a domain of concern for human performance, was not researched before in the context of developing countries.

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## Education and Employment

Ramswarup Sinha, Ph. D.<sup>1</sup>

### Abstract

*Many studies have shown that the number of years of schooling is positively correlated with the income of individual. Likewise the national development perspective depends on the quality of its technical workforce. Modern technology requires fewer highly qualified middle and lower level skilled personnel. It is also believed that many educational problems could be solved by diversifying the secondary education curriculum. Technical and vocational education programmes provided in developed countries through Dual school based system and mixed models. In 2007, 16% of secondary school students of developed countries were in TVET compared with 9% in developing countries and only 2% in south and west Asia. Only less than 3% students join technical education in Nepal. However, 23% of total GDP is contributed by the remittance of unskilled manpower's. Nepal is TVET programme is still suffering from access, quality and funding resources that should be addressed by the stakeholders.*

### Introduction

Broadly defined, human resource development (HRD) relates to the education, training and utilization of human potentials for social and economic progress. According to UNDP, there are five energizers of HRD. They are education, health and nutrition; the environment; employment; and political and economic freedom. These energizers are interlinked and interdependent, but education is the basis for all, an essential factor in the improvement of health and nutrition, for maintaining a high-quality environment, for expanding and improving labor pools, and for sustaining political and economic responsibility. Education is both economically and socially productive investment. In many developing countries, it is financed and provided predominantly by the government. However, another part of the explanation must be that some states have done better than others at creating the economic and political frameworks that allow educated people to work productively for their own and the common good (Sinha, 2008).

*"It has already been pointed out that many studies have shown that the number of years of schooling is positively correlated with the income of individuals. Furthermore, there is considerable evidence that social and economic class has a strong positive effect on level of income independent of the effects of education. Therefore, it can be reasoned that education increases rather than decreases the differences in income" (The World Bank, 2004).*

### Why VET?

The issue of VET has been a matter of concern of many countries for a long time. During the post-independence era also arguments have been advanced in favour of VET in developing countries; leaders such as Mahatma Gandhi, Mao and Julius Nyerere have been quoted in support of such educational reforms. VET was viewed as the solution to the educational problems in the developing economies. It was believed that many educational problems could be solved by diversifying the secondary education curriculum: the unbridled demand for higher education could be controlled, the financial crisis in education would be eased by reducing pressures on higher education budgets, and unemployment among college and secondary school graduates would be reduced. Differentiation of occupation in the developing economies requires

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secondary school graduates with varied skills. Because of changes in production processes resulting from technological advances, the nature of the demand for skills, both in terms of quantity and quality, changes. Modern technology requires fewer highly qualified middle and lower level skilled personnel. Vocational education can produce exactly this kind of manpower.

In the emerging knowledge-based global economy of the twenty-first century, learning and skills play an increasingly important role in shaping prospects for economic growth, shared prosperity and poverty reduction (Sapir, 2005). A country's most important resource is not its raw materials or its geographical location but the skills of its people. Countries that fail to nurture these skills through effective learning face a bleak future, with human capital deficits hindering economic growth, employment creation and social progress. Within countries, unequal access to opportunities to develop skills will be reflected in deepening social and economic disparities. Youth unemployment, one of the most serious and persistent challenges facing governments across the world, is in part a reflection of a misalignment between skills development and the economy. As one recent report puts it on 'Achieving world class skills is the key to achieving economic success and social justice in the new global economy (Leitch Review of Skills, 2006, p. 9).

In many countries, technical and vocational education fails to reach large numbers of marginalized young people, notably young women. Far more could be done to broaden vocational education opportunities, by offering second chance programmes and by better integrating vocational training into national, poverty reduction strategies. Designing flexible programmes for young people who have not completed secondary school or gone beyond primary education can help combat youth unemployment.

The fundamental purpose of technical and vocational education is to equip people with capabilities that can broaden their opportunities in life, and to prepare youth and young adults for the transition from school to work. Skill development in technical and vocational education matters at many levels. For individuals, the skills carried into the labour market have a major influence on job security and wages. For employers, skills and learning play a key role in raising productivity. For society as a whole, raising the overall, level of skills, ensuring that young people are not left behind and aligning the supply of skilled labour with the demands of industry are critical to social cohesion. (GMR, 2010)

Further, vocational education is considered helpful in developing what can be termed as 'skill-culture' and attitude towards manual work, in contrast to pure academic culture and preference for white collar jobs; and to serve simultaneously the **"hand"** and the **"mind"**, the practical and the abstract, the vocational and the academic." (Johan and Rye,2002).

### **Global practices**

Technical and vocational education programmes emerged in developed countries during the nineteenth century to support industrial development. Their subsequent evolution and their adoption in developing countries reflect complex institutional relationships between education and economic systems.

In Korea, the changes in the industrial and occupational structures in the labour market, led to the changes in the level of educational attainment of employees by occupation. For professional and technical workers, the level of college graduates (including junior colleges) increased from 33.5 percent in 1960 to 81.1 percent in 1990 indicating that in order to get professional or technical jobs higher education has become essential. For administrative and managerial workers, the ratio of college graduates also increased from 11.4 in 1996 to 55.8 percent in 1999. Similarly, the GNP multiplied 12.5 times in real terms between 1963 and 1993. Overall, the educational level of employees in the Korean labour market has increased. This reflects that due to the universalization of secondary education and popularization of higher education. In other words, economic development has been accelerating our need for well -educated and better- trained workers to cope with new technology and to compete in international markets (Paik, 1995).

There are many models of provision. While some countries provide general education in schools, with companies or special training institutes offering vocational options, other countries offer distinctive vocational options in secondary school. Apprenticeship programmes are an important part of technical and vocational education provision, though here, too, arrangements vary. Several broad approaches can be identified:

- **Dual systems:** Some countries combine school-based and work-based training in dual systems, integrating apprenticeships into the formal education structure. OECD countries that typically offer this option include Denmark, Germany, Switzerland and, more recently, Norway. The well-known German dual system, which has been widely copied in developing countries, creates opportunities for students to combine school-based classes with in-company training (Barabasch et al., 2009).
- **School-based systems:** Several countries have traditionally maintained a division of roles between school-based general education and company-based training. In Japan, full-time vocational schooling is followed by full-time employment in enterprises linked to the school. As with the German dual system vocational training in Japan has historically helped facilitate quick settlement of school leavers into secure employment.
- **Mixed models:** Many countries operate hybrid programmes, providing vocational education streams within the school system. This is a characteristic of the French model, though France also operates a small parallel dual system. The United Kingdom operates several 'school and work programmes involving apprenticeships and general education. However, the links between employers and educators have traditionally been less institutionalized than in the German or Japanese systems (Grubb, 2066).
- **In most countries:** governments hold primary responsibility for setting the overall direction of vocational education policy and for overseeing and regulating standards. A wide range of other interested parties is involved, however, including employers. Trade unions, civil society and private agencies. Many countries have created national training authorities to oversee and coordinate activities with remits that extend from the design of vocational curricula in schools to oversight of training in specialized institutions and in companies.

Participation in technical and vocational education has increased alongside the general expansion of secondary education, but the degree to which secondary education has been 'vocalionalized' varies markedly. In 2007, 16% of secondary school students in developed countries were in technical and vocational education, compared with 9% in developing countries. 16 Technical and vocational shares were lowest in secondary enrolment in sub-Saharan Africa, and South and West Asia (2%). Figure is given below:

**Enrollment in Technical and Vocational Education (TVE) by region, 2007**

	Total enrollment in secondary		Total enrollment in TVE			
	Total	Female	Total	Female	% of school age population	% of total enrollment secondary
	(000)	%	(000)	%		
World	518721	47	54024	46	7	10
Developing countries	409125	47	37044	47	6	9
Developed countries	83335	49	13553	43	16	16
countries in transition	26261	48	3428	40	12	13
Sub-Saharan Africa	35580	44	2221	39	2	6
Arab States	27453	47	3157	43	7	11
Central Asia	10891	48	1271	46	11	12

East Asia and the Pacific	165769	48	23658	49	11	14
East Asia	162324	48	22550	49	11	14
Pacific	3445	48	1109	44	34	32
South and West Asia	125705	44	2412	27	1	2
Latin America and the Caribbean	58547	51	6275	54	9	11
Caribbean	1294	50	51	49	2	4
Latin America	57253	51	6225	54	10	11
North America and Western Europe	62401	49	8645	43	14	14
Central and Eastern Europe	32375	48	6385	39	17	20

Source: GMR, 2010

Prospects for successful vocational education provision are inevitably shaped by the wider learning environment. One of the lessons from successful countries in East Asia and elsewhere is that high levels of literacy, numeracy and broad based general education are the real foundation for acquiring flexible and transferrable vocational skills. Many countries lack the foundation.

Consider the prospects for 15-year-olds in different parts of the world. In OECD countries, 85% of 15- to 19-year-olds are in full-time education and at 15 a student can expect to continue for seven more years. This compares with less than one year in South and West Asia. In sub-Saharan Africa, the average 15-year-old does not attend school. In countries including Burkina Faso, Ethiopia and Mozambique, more than 75% of young people who do not go to school report having no education (Garcia and Fares, 2008). For countries where much of the youth population either does not reach secondary school or lacks basic literacy and numeric, technical and vocational education in secondary school can only have limited success as a national skills development strategy.

Young people are now in the front line of the global economic downturn. Recent estimates suggest that world unemployment could be 39 million higher by the end of 2009, compared with 2007, and that youth unemployment may rise by between 5 million and 17.7 million. The youth unemployment rate is projected to increase from around 12% in 2008 to between 14% and 15% in 2009. Employers are more prone to dismiss young workers - especially unskilled young women - because youth tend to have the least secure employment conditions and are often not covered by labour regulation (ILO, 2009).

In Nepal, CTEVT graduates have paved a good track record of themselves, there is high scope in the courses, 70-100 percent of graduates are engaged in their respected sectors. The CTEVT has capacity to enroll around 3500 students in nursing course but there were more than 14000 applicants for the course last year, the global village technical education has to be at par with international standard and accreditation system. If Nepal could priorities this, it would be instrumental for to resolve the problem of unemployment is one of the major problems of the country. It is a harrowing situation and there is less than 10 percent probability for students of academic education to get job, while there is more than 80 percent of job security for students of technical education. However, less than 3 percent of students join technical education after S.L.C. while more than 95 percent go for academic courses. Thus to generate employment and self-employment promoting this education system could help to the overall development of the nation. At present thousands of Nepalese are employed in abroad but merely three percent are skilled. However, around 23 percent of our total GDP is contributed by their remittance. So, it can be assumed that the remittance would be increased by four to five folds if they were skilled manpower (THT, 2011).

## Nepalese practices

For technical education and vocational training several models were introduced in Nepal at different point of time. However, these models could not last for more than a decade. Starting with general education in the 1950s, the government launched many programs like multipurpose high schools. National Education System Plan (NESP, 1971) introduced vocational education in high schools. But none of these models worked and in the 1980s the concept of trade school came with a view to facilitate, empower and develop the rural areas. Karnali technical school was established as a pilot project which is also the foundation of CTEVT. The government implemented a policy of gradually expanding such institutions and allowed private sector participation around 16 years ago. Now, it is imparted with three modalities of education through four polytechnic institutes, 18 technical institutes and two vocational training centers. Similarly, in the private sector to some 141 institutions in Technical School Leaving Certificate (TSLC) are running under CTEVT. 177 institutes in intermediate and diploma and 50 institutes in short-term vocational training are conducting all over the country (THT, 2011).

Nepal has opted developing two distinct streams of educational development, particularly so at the school level and post-secondary level- general education, and technical and vocational training. General education covers early childhood development program to 10<sup>th</sup> grade which is now extended to 12<sup>th</sup> grade under recently implemented school sector reform plan (SSRP). Council for technical education and vocational training (CTEVT) is responsible for vocational training for secondary and post secondary students- those who appeared in the test examination of SLC and those who passes the SLC examination. However, CTEVT curriculum is still to be linked to the lower grades below 10 and higher technical education runs by universities (CTEVT, 2010).

The Ministry of Education (MoE) has expanded Annex programme in order to provide technical education and training at 30 secondary schools one vocational education subject has now been also incorporated in the school curriculum at secondary level making up about 14 percent of the total curriculum. Besides it, the Asian Development Bank (ADB) is supported in a new project "Skill for Employment" targeting poverty reduction through skill training for 80 thousand disadvantaged and deprived youths. Other current initiatives in Nepal include as:

- Advocacy from various agencies and civil society.
- Reorienting the focus of CTEVT from technical education to vocational skill training for the excluded.
- Partnership with the Federation of Nepal Chamber of Commerce and Industries (NFCCI) to develop four trade training centres to address the needs of workers and industries.
- Establishing one model vocational school in each district within the current plan period and
- Involving the employment promotion commission and several government ministries in either supporting or providing skills training as: Department of Labour, The non-formal Education Center (NFEC), Community Learning Centres (CLC) and Department of Cottage and Small Industries etc (IIEP, 2004). Training provisions providing by CTEVT is given below:

### Enrollment Capacity in Diploma/PCL Programmes

S.N.	Programmes	constituted			Affiliated			Total	
		Inst.	Quota	Total	Inst.	Quota	Total	Inst.	Total
1	Medicine/Health	212			7930			8142	
2	Engineering	456			2784			3240	
3	Agriculture	60			176			236	
4	Forestry				1	40	40	40	

	<b>Total</b>	<b>728</b>	<b>10930</b>	<b>11658</b>
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### Enrollment Capacity in TSLC Programmes

S N	Programmes	constituted			Annex			Affiliated			Total	
		Inst.	Quot a	Total	Inst.	Quot a	Total	Inst.	Quot a	Total	Inst.	Total
1	Medicine/Health	250						5690			5940	
2	Engineering	474			448			2208			3130	
3	Agriculture	374			120			1400			1894	
4	Others	30						9	40	360	390	
	<b>Total</b>	<b>1128</b>			<b>568</b>			<b>9658</b>			<b>11354</b>	

### Total Graduates upto Magh 2065

SN	Programmes	Capacity (annual)	Enrollment	Total Graduates
	TSLC		<b>144652</b>	<b>46460</b>
1	VJTA	1278	3384	2178
2	AAW		2825	1103
3	Civil SO		4877	1785
4	Lab Assistant		11012	5484
5	ANM		15966	8558
6	CDO		270	158
7	Dental		649	323
8	AMIN		1622	751
9	Food Technology		11	1
10	ANCHW (yoga)		28	23
11	Electrical		1429	542
12	CMA		55292	25106
13	Office Management		62	44
14	Mechanical		39	7
15	Auto mechanical		140	72
16	Carpentry		15	12
17	Acupuncture		40	34
18	JCT		84	43
19	AMCHI		3	1
20	SM		400	279

Source: MOE, 2010

### Major issues and problems

TVET, especially skills training is an important means to prepare future generation to be able to contribute to socio-economic development. If it is translated in real situation it would contribute to the national development. In addition it would also contribute to produce human resources of competing in the national and international labour markets. Proportional and equitable access to school and higher TVET education is to make it useful and relevant for life. But some critical issues as hindrances of TVET are given below:

- Lack of Co-ordination and collaboration system.

- Absence of Sustainable training system.
- Irrelevance of Training and job Underinvestment of education budget on VET.
- Low quality of education.
- Poor access to education/training
- Weak management
- Systematic problems and
- Non-functioning local agencies (DDC and VDC) etc.

### **The way forward**

From the review of Asian experience, a few important lessons can be drawn for the development of VET in developing countries as:

- Plans for VET should be preceded by detailed manpower analyses and forecasts.
- There is a need to develop special programmes for those who are disabled.
- Recognize and accredit the traditional community/rural based skills.
- Strengthen national co-ordination and professional support for capacity building and human resources development (HRD).
- Focus policy on skill training programmes.
- Increase level of government investment on TVET and make more justifiable balance in funding the different sub-sectors of education.
- Mobilize Community Learning Centres (CLCs).
- Encourage INGOs/NGOs and local self governments to join with the governments initiatives.
- Develop National Training Fund (NTF).

### **Conclusion**

Extensive historical data across countries as well as empirical work show that education is a very important policy instrument, which can stimulate economic growth, improve agricultural and industrial productivity and reduce poverty. Evidence of the contribution of education to economic growth and agricultural output has been documented in Nepal during the past two decades. This evidence seems to be consistent with findings from other countries and with more recent Nepalese studies, which show high rates of return for primary and secondary education (The World Bank, 2004)

Until 1995-1996, migration to India accounted for around 85 percent of total out- migration from Nepal. Currently, the government policy allows Nepalese citizens to apply for official permission for employment in 107 countries (Adhikari and Grung, 2009). Around 631 manpower companies are working for travel process; around 700 youths leave for overseas every day. The trends of migration indicates that most of the poor and illiterate youths often select India while, literate and educated with little better economic background select other countries.

So that, VET system with broad vision, dedicated policy, long term planning, development, efficient governance, effective implementation, regular monitoring, timely feedback, fair evaluation and immediate correction is the need

of the hour. The development perspective of any nation depends on the quality of its technical workforce. Global as well as national competition and requirements are the prime concerns that must be seriously considered for a system to do a good job. In gist, a well designed quality framework of TEVT utilizing all aspects of a system is the real need for the country.

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## Employment centric Plan – Where does skill training lie?

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### Abstract

*The nations' policy making and planning body, National Planning Commission (NPC) has been shifting its focus almost in alternative periodic plan. Current Three Year Plan (2010/11 – 2012/13) has focused on employment. To achieve employment centric, poverty alleviation oriented, sustainable and broad-based economic growth with the joint efforts of the government, private and community/co-operatives sectors is the strategy of the government. It has been reinforced by the 'White Paper' issued by the GoN. The focus on employment has a wide coverage in the TYP. Even the major focus of previous plans 'poverty alleviation' has to be achieved through employment opportunities.*

*The approach paper has even envisioned of employment right of the people for which 'Laws would have been formulated to ensure employment right provision in the Constitution and training opportunities related to employment oriented skills and technology development would have been increased.'*

*Only in a couple of places the government has clearly specified and quantified the scale of skill training e.g. "One hundred thousand youth would have acquired employment-oriented skill development training of at least three months annually and accessed employment." For which coordination and cooperation will be done with the Ministry of Education and Council for Technical Education and Vocational Training to improve the quality and employability of trainings of longer duration, including technical SLC trainees.*

*The employment aspect has focused on three target groups – the youths, socio-economically deprived group and the ex-militants.*

*Analyzing the policy of the government one can conclude that it is well planned and the GoN is quite clear and strategic on employment creation but the skill training part is still less focused. Even the training policy approved by the government has been forgotten and has not been mentioned in any context of the whole planning document which would have very positive impact on the whole thrust.*

### The Policy of the Government

The nation's policy making and planning body, National Planning Commission (NPC) has been shifting its focus almost in alternative periodic plan whether it is an interim or full fledged five year plan since systematic planning started in Nepal from the year 2013 B. S. The previous Tenth Five Year Plan (2002/03–2006/07), and Three Year Interim Plan (2007/08 - 2009/10) had focused on poverty reduction. The Tenth Plan (2002/03–2006/07) emphasized poverty reduction through private sector-led growth, while the Three Year Interim Plan (TYIP) continued with similar thrust by advocating growth for poverty reduction (Poudyal: 2010). Current Three Year Plan (2010/11 – 2012/13) has focused on employment. The objective of the TYP states:

*"The main objective of the Plan is to enable people to feel change in their livelihood and quality of life by supporting poverty alleviation and establishment of sustainable peace through **employment centric**, inclusive and equitable economic growth." (Three Year Plan Approach Paper (2010/11 – 2012/13), Government of Nepal, National Planning Commission: 2010, p. 18).*

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To achieve the objective the plan has put forward the following strategy:

**"Attaining employment centric,** broad-based economic growth, creating development infrastructures, considering the future federal states including regional balance, inclusive and equitable development, support the process of socioeconomic transformation of the nation, making governance and service delivery effective and mainstreaming trade in development are the macro strategies of the Plan. It includes the following strategies:

To achieve employment centric, poverty alleviation oriented, sustainable and broad-based economic growth will be through the joint efforts of the government, private and community/co-operatives sectors.

Emphasis will be given to enhance employment with the joint efforts of the government, private and community/cooperative in all sectors of the economy to create internal and external employment opportunities for increasing population of the country and to improve living standard of the people living below the poverty line. Moreover, economic growth rate will be made sustainable, broad-based and poverty alleviation-oriented by giving priority to the development of more employment generating sectors. To achieve economic growth, agriculture, tourism, industry and trade sectors will be taken as prime sectors."

(NPC, 2010, p. 18).

### **The Role of Public-Private and Cooperatives in Employment Creation**

The policy of the government is clear regarding employment creation and has been reinforced by the 'White Paper' issued by the GoN. It has emphasized on employment creation through public, cooperative and private sector. (Adhikari: 2011).

The approach paper is also in line with the White Paper "Private, nongovernmental and cooperative sector institutions will be encouraged to contribute to the development of employable skills and human resources particularly in the rural areas."

To achieve such target the major employment agencies' performance will play key role. There are two major wage employment generators in the country they are production industries and infrastructure development; production industries are mainly run by private sector where as main infrastructure development actor is the public sector, the government. Till 1990's decade the public sector was major employer and even now the situation has not been created to take the government sector out of employing agency's list ( Gajurel: 2008).

In the recent years private sector is investing on housing in the big and growing cities and also taking interest on hydro power, there are several other areas where private sector is interested in. So the government has also made a policy to involve private sector and recognize their involvement. The government has realized that there is clearly a need for increased investment in infrastructure and other basic services. However, only the government's investment and involvement in infrastructure and public services is not enough implying the need for a greater role of the private sector. (White Paper on Public Private Partnership (PPP): 2011. p 1). Issue of the white paper itself is supposed to be a milestone for private sector,s increased involvement in national development and that will support employment promotion of the youths.

In case of foreign employment private manpower agencies have been working as mediators and are supplying workforce in foreign countries, mainly in the Middle East. The earning of those workers 'remittance' has been the main source of income in the nation. This is in increasing trend every year in the first decade of the 21<sup>st</sup> century and has been continuing the growing trend. The planning document has realized the fact and

has emphasized on some sort of partnership in this regard. Employment opportunities will be created by increasing the role of private sector, public-private, partnership and cooperative sector. (p. 62).

It is well realized fact that industrial growth has been hindered by extreme unionism, load shedding and other factors. To address these problems political situation of the country needs to be improved. The approach paper has realized the problem –

"Taking into consideration of the existing political situation, need to orienting nation into sustainable high economic growth direction, the institutional capacity and the expected availability of internal and foreign resources, the Plan has targeted to achieve 5.5 percent annual average economic growth rate. With this growth rate per capita income will increase by 3.5 percent and employment will increase by 3.6 percent on an annual average basis. The population living below the poverty line is targeted to be reduced to 21 percent on the basis of the achievements made in poverty reduction so far, elasticity of poverty with the economic growth, achievements of employment growth and targeted programs, and on the basis of accepted definition of poverty." (NPC 2010, p. 22).

### **Focus on Employment Generation**

The employment growth rate in the year 2009-10 was 3% but the Three Year Plan has targeted 3.6% that is an increase of 0.6% in growth rate. It has been very clearly mentioned that

"In order to achieve the targeted growth rates of the Plan, the allocation of sectoral investments will be made on the following basis.

... Investment will be concentrated in those sectors, strategies and programs which create direct and indirect employment. Employment creation will be the main basis for selecting any project and investment will be concentrated accordingly." (National Planning Commission: 2010, p. 25).

The focus on employment has a wide coverage in the TYP. Even the major focus of previous plans 'poverty alleviation' has to be achieved through employment opportunities.

Poverty alleviation objective of the TYP stating "To reduce existing inequality and poverty in the country by increasing dignified and profitable employment opportunities through the expansion of inclusive, productive and targeted programs" emphasizes on employment. Furthermore the Strategy to achieve poverty alleviation objective states – "Direct the state role and policies towards broad based economic growth, creation and promotion of employment opportunities, and their justifiable distribution through productive activities of the formal and informal sectors in the country" (National Planning Commission: 2010, p. 61).

The TYP has highlighted the need of skills training without concrete programs. Setting the objectives of labor and employment the TYP has mentioned: -

"To create decent employment and self-employment opportunities within the country.

To reduce unemployment by developing enterprising, competent and skilled human resources capable of competing in domestic and international labor markets.

To increase the contribution of foreign employment to poverty reduction by maximizing the benefits and minimizing the risks." (National Planning Commission: 2010, p. 64)

It has set following strategies to achieve the objectives,

"Make provision for employment guarantee of stipulated duration in stipulated sectors while unleashing employment opportunities and potential through employment-centric investment.

Establish cordial industrial relations by protecting the rights of the workers as well as creating investment friendly environment strengthening Employment Information Center into an Integrated Employment Exchange Center.

Create enabling environment for self-employment by enhancing opportunities for vocational and skill development trainings and by localizing such trainings to reach the consumers. (National Planning Commission: 2010, p 64)

The strategies will be followed by following working policies:

Employment Guarantee Law will be enacted and enforced to ensure employment in the designated sectors for limited period.

Additional jobs will be created by employing employment intensive technologies while investing on agricultural as well as on non-agricultural sectors (infrastructure, tourism, forest and industrial enterprises).

Employment monitoring system will be strengthened to ensure effective employment opportunities.

Access to jobs in accordance with knowledge and skills will be facilitated through creation and expansion of Information Centers, and analysis of the enlisted human resources will be carried out to strengthen effective employment exchange system. (National Planning Commission: 2010, pp 65-66)

The government has planned to channelize every resource available for employment promotion. Even the foreign aid will be used with priority in the employment generating sectors. There are enough indications that the government would work on skills training. It has been clearly mentioned that access of the deprived class in the employment opportunities will be increased through education and employment-oriented trainings. (National Planning Commission: 2010, p 62).

The approach paper has even envisioned of employment right which is appreciable. While mentioning expected outcome in the chapter poverty alleviation it has been stated that "Laws would have been formulated to ensure employment right provision in the constitution and training opportunities related to employment oriented skills and technology development would have been increased." (National Planning Commission: 2010, p 62).

Labor and employment chapter has further specified the policy, the following as their expected outcome within the plan period:

Skilled and competitive labor force would have been produced to meet national and international labor market demand thereby reducing unemployment rate.

Access of women, youth, *Dalits*, indigenous nationalities, *Madhesi*, Muslim, conflict affected as well as very poor and marginalized regions and groups to employment would have been enhanced.

Promotional programs for safe and systematized foreign employment implemented, new arenas of employment would have been identified and amount of remittance increased.

Employment Information Centers would have been evolved into employment exchange centers mediating between employers and job seekers. (National Planning Commission: 2010, p 67)

In the sectors like industry, Tourism and Civil Aviation, Hydropower, employment creation has been highlighted. Some citations:

Encouragement will be made to those projects which will be completed quickly, increase production through repair and maintenance and generate employment. (National Planning Commission: 2010, p 145)

To create productive self-employment by developing entrepreneurship to backward, poor targeted group through micro enterprises. (National Planning Commission: 2010, p 85)

A total of 150 thousands employment would have been generated at the annual rate of 50 thousands by establishing and operating large, cottage, and small and micro-industries.

(National Planning Commission: 2010, p 88)

Attain balanced and inclusive development through tourism development providing significant contribution in employment generation, poverty reduction and regional balance.

(National Planning Commission: 2010, p 96)

Direct employment from tourism sector would have been reached 150 thousands. (National Planning Commission: 2010, p 99)

### **Skills Training for Employment**

There are only a couple of places where the government has clearly specified and quantified the scale of skill training. One of them is "One hundred thousand youth would have acquired employment-oriented skill development training of at least three months annually and accessed employment." (National Planning Commission: 2010, p 67)

The entrepreneurship training has also been highlighted as "Skill development and different training programs will be conducted in local level to provide employment opportunities to young workforce seeking potential market and business occupations identified by them." (National Planning Commission: 2010, p. 97)

One of the objectives of education has been accepted as to develop and expand skill and employment-oriented education.

The Strategy to achieve the objective is to make technical education and vocational training employment-oriented by developing them as separate streams while providing vocational training opportunities to the youths. (National Planning Commission: 2010, p 123)

The government has put forward following working policy to attain the strategy mentioned above.

By assessing the needs and effectiveness of institutions involved in technical education and vocational training, institutional distribution will be strengthened and systematized. Investment in this sector will be expanded in public-private partnership based on performance contract.

To move ahead in a coordinated and systematic way in vocational training sector, recommendations of high level committee will be implemented in an effective and integrated manner. All resources available for skill development will be used in a coordinated way by consolidating it into an integrated fund. (National Planning Commission: 2010, p 125)

Model vocational education program will be carried out in a few locations to provide production-oriented education by harmonizing education and local vocation. (National Planning Commission: 2010, p 126)

Integrated micro enterprise development programs will be implemented to promote self-employment including provisions of skill and entrepreneurship development and soft loans.

Skill development programs will be carried out as a campaign by consolidating all institutions providing vocational and skill development training under one umbrella and developing it as a professional quality training provider institution.

Coordination and cooperation will be done with the Ministry of Education and Council for Technical Education and Vocational Training to improve the quality and employability of trainings of longer duration, including technical SLC trainees. (National Planning Commission: 2010, pp 65-66)

### **Target Group for Employment**

The employment aspect has focused on three target groups – the youths, socio-economically deprived group and the ex-militants. The youths are on lime light for many years in this perspective. There is a need to orient the youths towards capable and mighty group of people able to run development projects by providing skills training and employment to the youths. (Sharma, S. R., 2000 p109 Education: Development and Challenges. "Employable Education: Situation and Challenges"). It seems that the government has realized the fact and has planned accordingly.

The adoption of National Youth Policy, 2066, skills training to youths, implementation of Youth Partnership Program in collaboration with NGOs, establishment of some Youth Information Centers, launching of youth exchange programs (external and internal) and convening of national youth conference are some of the achievements made during TYIP 2007-2010.

The major issues to be addressed as problems and challenges are: difficulty in forging collaboration among training providers so as to develop skills and enhance the employability of the youths; problems in the monitoring of Youth Partnership Program; lack of partnership network of training provider institutions and NGOs; absence of effective programs for providing skill development and employment opportunities for youths; and the high proportion of unemployed and underemployed youths.

The government has planned to enhance youth targeted services and facilities including employment opportunities and developing their socioeconomic entrepreneurship simultaneously. The government intends to reduce youth migration by creating youth friendly environment to enhance positive thinking and creativity as well as opportunities for their career development and resolving the problem of unemployment. (National Planning Commission: 2010, p 107) The government has also expected that involvement of youth in agriculture, tourism and industry sectors would have been increased and employment opportunities enhanced. (National Planning Commission: 2010, (p 108) and has anticipated that significant number of youths receiving skill development training would have been employed. (National Planning Commission: 2010, p 127)

There is one more important segment of the society to be addressed by the government in employment opportunities and income generating activities. The government has planned that the militants disqualified with the verification from UNMIN, will be provided with necessary education, skill, expertise, and support to absorb them in the employment market. (National Planning Commission: 2010, p 166)

Furthermore, in order not to curb the conflicts in the future, the government has planned to select some sample areas for research and study to identify the sources of people's interests for changes in the various aspects of society. The recommendations of the study will be addressed through various programs. In this context, emphasis will be given on training and development to ensure employment and other opportunities. (National Planning Commission: 2010, p165).

## **Conclusion**

Analyzing the policy of the government one can come to the conclusion that it is well planned and the GoN is quite clear and strategic on employment creation but the skill training part is still less focused. There are indications but it required more focus and proper management. It can be further said that the approach paper in this regard is very appealing shopping list without adequate training management. Even the training policy approved by the government has been forgotten and has not been mentioned in any context of the whole planning document which would have very positive impact on the whole thrust.

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## Skills Training and Poverty Alleviation: The TEVT Contribution in Nepal

Garry Baragh<sup>1</sup>

### Abstract

*Skills Training as recognized through an established TEVT system plays an important role in poverty alleviation.*

*This is more likely to occur if the direction of the skills based training is demand driven and linked to the job market, whether it be for internal or overseas employment.*

*A TEVT system should stress the word “vocational” which is used in the systems of many t countries. That is training for a vocational or job that results in an increase in income to improve the graduate’s quality of life. This includes self employment and work in the informal sector.*

*This is particularly relevant in developing countries, including Nepal which have a small formal sector, approximately 17%<sup>2</sup> and the majority of graduates, particularly at the entry level of training proceed to self employment.*

*In many developing countries the majority of people are found to be involved involve in subsistence or semi-subsistence agricultural activities. Informal training or Livelihood Training as it is sometimes referred to in Nepal, while outside the definition of technical education has an important role in poverty alleviation through raising income of agriculture and forestry farm workers.*

*The 2000 Millennium Development Goals state as Goal 1. Eradicate Extreme Poverty and Hunger.*

*Target 1. Halve between 1990 and 2015 the proportion of people whose income is less then USD \$1 per day.*

*It can be argued that to achieve this goal (to which Nepal is a signatory) that skills training, that leads to an increase in income can contribute to the alleviation of poverty.*

*Since the peace accord in Nepal in 2006 there has been a significant expansion of TEVT, targeted at the most disadvantaged segment of population. Details provided below.*

*The challenge for TEVT stakeholders including planners is to provide access to the most disadvantaged people, to the very poor and disadvantaged. Traditionally these people: Dalits, disadvantaged Janajati and women have not been addressed in TEVT training.*

### Poverty in Nepal

Nepal has tremendous opportunities in exploiting natural resources although Nepal still remains one of the poor countries in South Asia and ranks 143 from 195 countries on the poverty index and 142 amongst 177 nations in terms of Purchasing Power Parity.

The number of people earning less than USD \$1/ day is 31.8%.<sup>3</sup>

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<sup>2</sup> Himalayan News Service – National Labor Survey 2008.

<sup>3</sup> Nepal Bureau of Statistics



It is estimated that 31% of Nepali people live below the poverty line with the incidence highest in the hilly rural areas, including the mid and far west and mountain regions.<sup>4</sup>

There is a direct link between poverty, employment opportunities, food insecurity and migration.

An additional 5 million people have potentially fallen below the poverty line in Nepal during the past 3 years.<sup>5</sup>

Life expectancy is much lower than the National Average of 63 years, in the poorest districts of Nepal.<sup>6</sup>

Food insecurity is one of the prime reasons for migration and there has been a tradition of migration from mid and far west for this reason.

This will be dealt with in more detail in the section below on Migration.

Despite GoN Development plans, donor contributing and economic growth there has only been no improvement in the numbers moving out of poverty. Remittances have assisted some families to move out of poverty (contributed to a fall in poverty from 1996 – 2004 of 11%).<sup>6</sup>

The past five years has been seen as emergence of a middle class in Nepal, who tend to live in urban centers, with the largest number in Kathmandu. This is reflected in the growth of retail, real estate and service sectors.

As in India the disparity between the rich and poor is growing, which has the potential to cause political and social unrest.

The overall causes of poverty are complex and interrelated and vary between regions. Common reasons are lack of employment opportunities, insufficient access to food, debt and more recently climate change.

The contribution that skills training can make towards poverty alleviation will be explored in this paper.

### **Background to TEVT in Nepal Prior to 2006**

Prior to 2006 TEVT in Nepal was dominated by the GoN, with seven Ministries delivering programs. Short term vocational programs were also run by Tribhuvan University, Kathmandu University and B.P. Koirala Medical College.<sup>7??</sup>

The sector was characterized by a lack of integration, duplication, inconsistency in training length for the same courses mostly of supply driven types.

The private sector was active in most occupational areas; however training was mostly conducted in the urban centers with Kathmandu having the largest number of TTPs. These TTPs mostly offered short term vocational courses.

The conflict also had a limiting effect on the expansion and development of the TEVT sector, restricting training to larger, safer district-towns. Training was not possible in some districts due to the intense fighting.

The Council for Technical Education and Vocational training (CTEVT) was constituted in 1989 and was seen as being the primary delivery organization for TEVT in Nepal.

The National Skills Testing Board was attached to the council at this time.

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<sup>4</sup> Himalayan News Services. 11/ 8/ 08

<sup>5</sup> The Cost of Coping UN WFP –. Nepal 2009.  
Himalayan News 23/ 7/ 2010

<sup>6</sup> Passage to India Nepal UN WFP –. Nepal 2009.

<sup>7</sup> A Profile of Technical and Vocational Education and Training Providers – CTEVT June 2006 + 2010.

The first CTEVT trade school was Karnali School opened in 2037 (1980). CTEVT has trade schools in 17 districts offering from TSLC up to diploma level. The majority of courses are over 12 months and longer courses require SLC entry. They offer very few short Market Orientated Short Training (MOST) courses that target the most disadvantaged poor people. In 2009 SEP included CTEVT's BSET to deliver MOST on a pilot basis. Following this success additional trade schools have been contracted to deliver programs in 2010/11.

Currently CTEVT has 21 Constituted Schools, 8 Annex Schools and 149 Affiliated Schools, the majority of the latter conducting health related training.<sup>7</sup>

There were few INGOs/ NGOs involved in MOST, operating throughout Nepal from the early 1990s. Skill Nepal commenced as a mobile training organized followed by F-Skill in 2002 and Training for Employment (TFE), all programs supported by the Swiss Agency for Development and Cooperation (SDC).

However, combining these organizations, only some provided a small number of skill training courses, responsive to demands.

CTEVT estimates that 70% of graduates from its trade and annex schools have gained employment.<sup>7</sup>

### **Non Formal Education (NFE)**

Non formal education can be described as any organized educational activity outside the established formal system.<sup>8</sup> NFE assumes recurrent education or education for life as it is currently referred.

NFE has been conducted in Nepal for many years by a variety of government departments and NGOs.

The Department of Cottage and Small Industries (DCSI) commenced in 1973 and the Cottage and Small Industries Development Board (CSIDB) commenced in 1974.

Together they are the primary delivery organizations for NFE in Nepal.

*CSIDB and DCSI are also Skills for Employment (SEP) partners delivering Community based training in 20 districts.*

CSIDB operates in 12 hilly districts while the DCSI operated in 8 terai districts including Kathmandu.

The majority of their training is short term and aimed at increasing participant's income through self employment.

There is no accurate data on the effectiveness of this training on raising participant's income.

Training is limited by budget allocations (not demand) and oriented towards local needs.

CSIDB conducts a total of 111 NFE courses and DCSI 21 training programs. Descriptions of these courses can be found in the Profile of Technical and Vocational Education and Training Providers – CTEVT June 2010.<sup>7</sup> In 2009 DCSI trained 500 people and CSIDB 1360.

Given the lack of employment in wage occupations, particularly rural and remote districts there will be on ongoing demand for non-formal education and it will play an important role in the TEVT sector.

When the TEVT sector develops and matures there will likely be two streams, technical and vocational and non formal.

There will be bridges between the two enabling people completing non- formal education with recognition to enter the formal TEVT stream. Bridging courses would be developed to facilitate this.

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<sup>8</sup> The Encyclopedia for Informal Education (in fed) 2009. [www.infed.org](http://www.infed.org).

## **TEVT Post 2006**

Following the peace accord in 2006 and the end of the armed conflict, there has been an increase in non government and private TEVT activity, particularly in the Districts outside Kathmandu. Government training organizations were also able to operate more freely and increase enrolments.

This was brought about by:

- Donor interest in skills training, particularly in remote and poor districts.
- The existence of a safe operating environment for training and travel.
- The creation of a disadvantaged target group created by the conflict i.e. internally displaced people and ex-combatants.
- Indications of strong demand from early school leavers.

It is estimated t between 400,000 to 450,000 young people leave school below year 10 (including SLC fail). Of these approximately 200,000 would be interested and available for skills training.

It is estimated that there are 50,000 places/ year in formal TEVT schools. Therefore together with previous years unmet demand there can be said to be enormous unmet demand for skills training.

- A significant development was the interest of donors' funded training linking employment and training, with TTPs given a financial incentive to secure employment for their graduates.

This increases the opportunities for gaining employment, earning income and lifting them from poverty.

The 2007 GoN TEVT policy addresses this need through the first two key policy areas:

1. Massive Expansion of Training Opportunities.
2. Inclusion of and access for all citizens who need training.<sup>9</sup>

Donor sponsored activity has increased in the terai and hills, particularly in the mid and far west development regions.

This has been even more noticeable since 2007 with the establishment of the Helvetas managed Employment Fund and the Skills for Employment Project (GON and ADB funded) with a project target of 80, 000 disadvantaged people.

### **The Employment Fund (EF)**

The EF was established in 2007. The purpose of the EF is to promote private sector training to young and disadvantaged people to find gainful employment, enhance the training and management capacity of private training providers, and establish the EF as model for TEVT funding.<sup>10</sup>

There is a plan to eventually handover fund management to GoN.

The EF operates under a Framework Agreement signed between SDC and GoN. The Steering Committee is chaired by the Joint Secretary, Ministry of Education.

The EF funding and activity were expanded in 2009 with the inclusion of DFID (UK) funding and additional training organizations.

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<sup>9</sup> Nepal government TEVT Policy 2065.

<sup>10</sup> Employment Fund: [www.employmentfund.org.np](http://www.employmentfund.org.np)

Combined with SDC funding 24,000 disadvantaged young people are planned to be trained.

2010 = 11,000 projected.

Of these 76% were poor or Janajati, 14% Dalit and 57% female.<sup>11</sup>

There is a total of 17 TTPs registered with the EF.

### **Action for Peace Dividend – TEVT Vocational Coordination Group (APPD).<sup>12</sup>**

The APPD Coordination group is chaired by SDC and represents the major TEVT training providers, both government and non government.

Training Providers	Number of Trainees	
	2009	2010
SEP (ADB/ GoN)	6,877	35,000
USAID	3,336	4,000
GTZ	160	50
EU	331	30
Finida	375	375
EF	14,468	11,000
Skill Nepal	-	500
<b>Totals</b>	<b>25, 547</b>	<b>50,955<sup>8</sup></b>

As can be seen from the above figures there has been a big increase in MOST targeted at the most disadvantaged poor.

However it still leaves a large unmet demand based on the figures given above.

### **Self- Employment**

The majority of MOST graduates enter into self-employment. This reflects the overall national figure of 83.1%.<sup>13</sup>

The National Labor Force Survey revealed that 16.9% are in paid jobs and labor underutilization at 30%. Employment in the formal sector is estimated at around 7% including government positions.

The figure for self- employment for SEP was 76%.<sup>14</sup>

With the current state of the Nepal economy, in relation to available jobs and future job creation, it is apparent that self-employment and therefore MOST targeted at self -employment is necessary for the foreseeable future.

Increasing income and thereby poverty alleviation, through self-employment is the most viable option for the majority of TEVT (and non-formal) graduates.

TEVT planners and delivering organizations need to take this into account when planning training, developing curriculum and providing post training support services.

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<sup>11</sup> www.employmentfund.org.np

<sup>12</sup> APPD Vocational Coordinating Group Meeting Minutes 25/ 2/ 2010. SDC Ekanatakuna.

<sup>13</sup> GoN Bureau of statistics 2008 National Labor Survey.

<sup>14</sup> CTEVT Commissioned Tour Study, October 2009.

## **Micro Finance and Poverty Reduction**

The concept of micro finance is aimed at the poorest of the poor, through a small loan, often without collateral.

Micro finance is not new to Nepal. The GoN introduced the concept in 1975. The private sector entered in 1993, expanding the market.

Today players include: regional rural development banks, micro finance institutions, savings and loan cooperatives, INGOs, NGOs and informal community groups. It is estimated that micro finance has reached 1.2 m households and covers 26% of those living below poverty line.<sup>15</sup>

The experience from Nepal and other South Asian countries is that micro finance is an effective poverty reduction tool.

In Nepal microfinance has been mostly limited to urban, semi urban and terai areas. The challenge is to make micro finance services available to the people in the poorest areas include the hill and mountain districts. Specifically to include disadvantaged groups i.e. women, Dalits, marginalized Janajait, socially and geographically excluded.

Given the high number of TEVT (including MOST) graduates entering into self employment TTPs can play a key role through:

- Counseling trainees on self-employment.
- Ensuring that small business training is provided for trainees interested in self-employment.
- Providing linkages with MFIs.
- Providing post training support, mentoring and referral to business advisory services. This is very important in the first year of business operation as this is when the majority of small businesses fail.

## **Increasing Income levels through TEVT and Non-Formal Education**

The goal of TEVT training is to provide graduates with a job and income to meet (at least) basic needs, that is a living Wage and in the case of Nepal to raise people above the poverty line.

TEVT and Non-Formal Education should result in people earning a “living wage”. This living wage would be different in urban areas, reflecting the cost of living.

Some TTPs have set minimum income for graduates. For example, F-Skill Pvt. Ltd assesses income before training and post training at 3 months and 6 months for employed graduates.

The minimum monthly income for all graduates, in urban and rural areas is Rs 3000/ month. Graduates must be earning this amount for TTPs to claim on employment outcomes and payment from F-Skill Pvt. Ltd.

It would be good practice for all donors/ TTPs to set minimum income benchmarks for graduates. This could be different and rural and urban areas. It is more difficult with self-employment as quite often self-employed people reinvest income/ profits into the business for some time and it can take 12 months or more before the business returns a profit.

It would be more appropriate to assess the success (minimum earnings) of self- employed graduates after 12 months.

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<sup>15</sup> Himalayan News Services 18/ 2/ 09.

## **Indian and Overseas Employment**

For the past millennium there has been a steady stream of migration, both within Nepal and beyond its national borders. The reasons were given above (Poverty in Nepal) however the opportunity for well paid work (relative to what they would earn in Nepal) is a strong motivation.

Combined with limited job opportunities at home, food insecurity, Labor unrest/ uncertainty, social and political instability, overseas employment is an attractive option.

India has always had the largest percentage of Nepalese workers, 40% (particularly from mid and far west) followed by Nepal 22% and other countries 34%. It is estimated that 44% of households across Nepal have one or more family members absent and 25% of adult males have migrated (Nepal Living Standards Survey).<sup>16</sup>

There is a reported 26% increase in 2009/ 10 over 2008/ 9.<sup>17</sup> There was a reported fall “between” March 2008- 2009 of 17% due to reduced demand caused by the world’s financial crisis.<sup>18</sup>

It is difficult to get accurate data as many people leave unofficially and are not included in government data.

It is estimated that in the first quarter of 2010 about 1000 on average depart for overseas employment.<sup>19</sup>

A total of 2.2m Nepalese are believed to be working in Gulf Countries and Malaysia but only 1.3 m officially.<sup>20</sup>

The GoN has come to rely heavily on the money remitted from outside countries.

The amount of money remitted has been increasing steadily apart from a drop in 2008/09 caused by the world financial crisis.

Remittances are around USD \$ 2.8b contributing 17% to GDP and 47% of the Total Current Account, in 2009/ 10.<sup>21</sup>

Remittances from India compose 25% of this number through this is declining due to the increased number migrating to SE Asia and Gulf Countries.

Remittances are received from India average NRs 9,800/ person/ per annum. Where as, overseas remittance averages NRs 83,000/ persons/ per annum.<sup>22</sup> This is 2.5 times higher than an educated and trained worker would earn in Nepal.

What is clear is that migration becomes a desperate coping strategy when local livelihood opportunities become unavailable.

WFP surveys have indicated that people in mid and far west would not migrate if they could earn NRS 1,200 locally per month.

And that over 70% of migrants were poor or very poor, mostly male.

That 57.1% were semi literate and 22.3% illiterate, only 20% went to secondary school.

Remittances are very important to the very poor.

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<sup>16</sup> Passage to India Nepal – UN WFP 2008.

<sup>17</sup> Himalayan News Services – 22/ 7/ 2010.

<sup>18</sup> Passage to India – UN WFP 2008.

<sup>19</sup> Himalayan News Services – 22/ 5/ 2010.

<sup>20</sup> Himalayan News Services – 7/ 5/ 2009.

<sup>21</sup> Himalayan News Services – 26/ 7/ 2010.

<sup>22</sup> Passage to India – UN WFP Nepal 2008.

The Nepal Living Survey in 2007 indicated that remittances played a significant role in poverty alleviation.<sup>22</sup>

Therefore increase in remittances will raise family income of recipients and contribute towards poverty alleviation.

The vast majority of people going overseas are classified as unskilled or semi-skilled. A recent survey indicated 70% were unskilled and 27% semi skilled.<sup>23</sup>

There is a strong case to argue in up skilling people before they go overseas to increase their income levels.

A good example is the Philippines who export mostly skilled labor.

There are a number of Manpower Agencies and TTPs that are training people specifically for occupations in receiving countries. Quite often doing this successfully by training for skills in demand, utilizing tools and equipment the workers returned from overseas are used as trainers who have worked in the respective trades overseas.

Some Manpower Agencies and TTPs provide loans to trainees overseas at a lower rate than through money lenders.

There has been no consistent approach to up skilling people for overseas employment and only a small number of TTP graduates, as listed above go overseas.

SEP estimated that 27% went for foreign employment.<sup>24</sup> This is directly related to the type of training conducted and those surveyed.

For example the majority of Central based training scaffolding graduates have gone overseas.

There could be a role for a small number of overseas training centers to be located in the districts. In addition to skill training they could provide psychosocial counseling and linkages with MFIs, if required.

As the majority of migrants are poor (70%) and the present education level is low, with 57.1% just literate and 23.3% illiterate there is a need for literacy and life skill training.

These Centers could be established under a public private partnership, with donor or private sector funding.

Nepal will continue to rely on remittances to provide a necessary contribution to the GDP and the alleviation of poverty for many years to come.

It would make sense to institutionalize and upgrade training facilities to provide skills for people going overseas.

This is likely to benefit the poorest people as they are the majority who go overseas and increased income would contribute towards alleviating their poverty.

There is a strong case for introducing initiatives that address the causes of migration, one being the lack of employment opportunities. Skills and non formal training can play an important role in this.

### **Scholarships and Stipends**

Stipends have been used in Nepal to attract the most disadvantaged groups into training. The majority of MOST providers have targets for Dalit, Women, Youth, Janajati and DAG access.

A case can be presented for providing stipends and one against.

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<sup>23</sup> Nepal Republic 16/ 5/ 09.

<sup>24</sup> CTEVT Tracer Study, October 2009.

Some providers are providing stipends and others not e.g. SEP are providing stipends for 50% of the most disadvantaged trainees while others e.g. EF are not providing any stipends.

**Arguments for:**

- Very poor people cannot afford to attend training as they are forced to forgo income for themselves and family.
- Trainees who have to leave their home villages to attend training have additional accommodation and food costs.
- Specific target groups e.g. Dalits are more likely to expect stipends.
- There is history of and precedent for people from disadvantaged groups receiving stipends to attend training.

**Argument Against:**

- People don't value training unless they pay for it.
- People may attend training just to receive stipends. Attend multiple training.
- They are an additional cost of training.
- They are not necessary, if people are really interested they will find the means to attend training.

There is validity in both arguments and examples can be found to support both cases.

However due to the lack of evidence it is difficult to support either argument.

SEP is planning to conduct a Dalit only training program with full scholarships. Lessons learnt from this program will be useful for future planning.

As stated earlier the challenge is to attract the poorest of the poor into training. This can also be done through mobile training, taking the training to trainees at their home location and through the provision of stipends.

There is a case for providing stipends to very poor people that replace loss of income if they are the primary income earners.

In other countries training vouchers have been used to encourage people to attend training; however these work most effectively in a well established training market.

**Conclusion**

The causes of poverty are many with a nexus between poverty and lack of employment opportunities, food security, debt, migration and climate change.

As detailed, Nepal has a long tradition of migration due to the lack of employment opportunities at home is a key reason to migrate.

The majorities of people migrating does so out of necessity and are from areas where subsistence and semi subsistence agriculture dominate. They are mostly poor and either illiterate or semi literate. They mostly look for unskilled work either in Nepal or outside.

Training providers cannot create jobs; this is mostly done through the private sector. Government can create a "business friendly" environment including policies, taxation, labor laws and investment.



However skills training including non formal education can play an important role, if linked to market demand and increasing people's incomes, in alleviating poverty. This includes training for people wanting to work in Nepal or outside.

The best chance in any country of escaping poverty is a job or earning from self employment.

As the majority of TVET graduates will be self employed there is a role for business training and post training support services. This includes graduates of the NFE sector most of whom will get work in the agriculture or non forest timber product sectors.

The challenge for TEVT stakeholders is to enroll the most disadvantaged poor into training. This will require innovative approaches that combine strategies including: mobile training, stipends, flexible training hours and MFI linkages.

As seen by the figures above, even with a expansion of MOST training in the past four years, the majority of early school leavers do not have access to MOST.

This requires a concentrated effort of the GoN and stakeholders to provide access to all people, as stated in the 2007 GoN TEVT policy.

There is a role for all TEVT stakeholders: government, private and donors, to achieve TEVT objectives.

The goal of all skill training should be to provide an income after training that at least raises people above the poverty line and provides a living wage.

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## Promotion of Entrepreneurship through Technical and Vocational Education and Training (TVET) in Nepal

Shiva Shankar Ghimire<sup>1</sup>

### Abstract

*The focus of this paper is entrepreneurial development to the graduates of Technical Education and Vocational Training (TVET), which is one of the practical measures to reduce unemployment and poverty in Nepal. By equipping skilled/semiskilled youths with entrepreneurial skills could be the milestone for enterprises development. About one fourth of the populations in Nepal is living a life below poverty line. The education/training is not accessible to all needy people in one side. And on the other side, educated/trained people are not getting job in the country due to the limited growth and expansion of industries, enterprises and businesses. Overseas employment may not contribute to the national development in long-term. The education system needs to create economic value to its students, so that they can contribute in economic activities. TVET in particular, should embed entrepreneurship to its all programs, so that TVET graduates will be able to initiate small enterprises/businesses creating jobs for others as well. Entrepreneurial people can only build the foundation of economic growth in their nation. The first part of this paper briefly highlights economic situation of Nepal. The main discussion focuses on entrepreneurship, entrepreneurship education, and entrepreneurship in TVET. The entrepreneurship component of the curricula of the Council for Technical Education and Vocational Training (CTEVT) has also been discussed briefly. As conclusion, it is highlighted that entrepreneurship should be integrated into all programs of CTEVT.*

### Background

The population of Nepal is estimated nearly 30 million, of which more than one fourth of people are living below absolute poverty (CBS, 2008). The continuous growth in number of Nepalese people has obvious implication on education, employment and economy in near future. About 80 percent of Nepalese people are dependent on agriculture. The pressure of ever increasing population on limited agricultural land has created large scale unemployment and underemployment. In order to improve the employment rates, Nepal government has emphasized technical and vocational training and education (TVET). TVET in both public and private sector is expected to support various types of training programs to improve productivity through self and wage employment in the local and international market.

The most prevalence cause of conflict/insurgency in Nepal is poverty and unemployment particularly among youths. The industry and business sector is limited in Nepal. The initiation in the development and expansion of small, medium and large scale enterprises is stagnated because of insecurity, lawlessness, disturbance of trade unions. Thus the situation is further exaggerated due to political instability. About 400,000 new labor forces enter into the job market each year, that creates huge imbalance between the increased in labor forces and job opportunities (CBS, 2008). The increasing number of youths who are unemployed is serious concern and estimated that 85% of youths who do not complete 10 years of school education enter into job market without skills, knowledge and attitude through which they can secure employment and self-employment (Sharma, 2006). Nepal labor force survey (CBS, 2008) highlights that 3.6 million people of age 15 years and above are underutilized which is 30% of labor force. Among them 253 thousands (2.1% of labor force) are unemployed and 801 thousands (6.7%) are underemployed. Unemployment, low level of education and poverty reinforce each other in a vicious cycle and one hurdle raises another hurdle. The

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Millennium Development Goals (MDGs) set by 189 United Nation member states in the year 2000, committed to work together to reduce poverty by half by the year 2015 or earlier (Majumdar, 2008). Nepal has been initiating different strategies and planning to address this problem. One of the measures to break the vicious cycle of poverty is the promotion of entrepreneurship in the education system in general and TVET sector in particular. TVET sector is responsible to provide technical and skilled human resources to the enterprises and industries. Hence, entrepreneurship can be used as an effective strategy for poverty alleviation through its intensive integration in TVET sector. At present, all graduates of TVET system are not getting jobs. The promotion of entrepreneurship can be an effective strategy which will take these graduates from competitive wage employment to entrepreneurial gainful self-employment and in addition will promote employment for others also (Dhameja, 2008).

### **Entrepreneurship**

Entrepreneurship in a wider sense can be defined as a creative and innovative response to the environment (Dhameja, 2008). It is an act of being entrepreneur. The entrepreneur can be defined as “one who undertakes innovations finance and business acumen in an effort to transform innovations into economic goods” (wikipedia, 2011). The entrepreneur is an innovator who brings something new into the economy, a new method of production, new product or of new markets higher to unexploited. There is no generally accepted definition of what the entrepreneur is or does. Different literatures on entrepreneur are fragmented and highly controversial. The literatures described criteria of an entrepreneur ranging from creativity, risk taking, high need achievement etc to personal traits such as appearance and style. The French economist Cantillon, the first to introduce the term entrepreneur defined him as an agent who purchased the means of production for combination into marketable products (Palmev, 1981).

Entrepreneurial activities are different depending on type of organization and creativity involved. Entrepreneurship ranges in scale from sole project (involving entrepreneur only part time) to major undertakings creating many job opportunities. In recent times, the term entrepreneurship has been extended to include elements not only related to business formation activities, but also related to entrepreneurial initiatives resulting in the form of social entrepreneurship, political entrepreneurship or knowledge entrepreneurship (wikipedia, 2011).

The entrepreneurs, whatever is the definition, have been considered instrumental in initiating and sustaining socio-economic development across the world. It is believed that countries which have proportionately higher percentage of entrepreneurs in their population have developed much faster as compared to countries which have lesser percentage of them in the society (Sharma 2005). Hence, it could be the policy of many governments to develop a culture of entrepreneurial thinking. This can be done in many ways; by integrating entrepreneurship into educational system, legislating to encourage risk taking, and national campaigns etc.

### **Entrepreneurship Education**

Entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. Variations of entrepreneurship education are offered at all levels of schooling from primary, secondary schools up to university level. Orientation, motivation, value creation could be the part of school education, whereas developing attitude, skills, knowledge could be the part of tertiary education. One of the common goals of entrepreneurship education is to develop a student able to open a new organization starting a new business. The recent orientation is developing a student able to introduce new products or services or markets in the existing firms. This approach is called corporate entrepreneurship or entrepreneurship. The social or public sector entrepreneurship has come into being in governments and charitable organizations focusing on innovation and customer service (wikipedia 2011).

## **Entrepreneurship in TVET**

Council for Technical Education and Vocational Training (CTEVT) is the apex body of TVET sector in Nepal. The primary responsibility of CTEVT is to prepare young people who can contribute to the social, economic and cultural development of the country. Due to economic stagnation, there is/will be limited opportunities for wage employment for TVET graduates. The oversees employment could be the temporary solution and could not contribute to the long term national economic development since the population below the poverty line is very large. Hence, the priority and focus of CTEVT needs to gear up toward the integration of entrepreneurship in TVET programs. TVET programs will have to link with small business creation and self employment promotion (Sharma, 2005). The TVET sector in Nepal has been fighting for its relevance and prestige within the overall education system. In addition, the percentages of the TVET graduates who do not get jobs are increasing and are either unemployed or underemployed. In some cases, graduates are being exploited by the private sector because of large demand-supply gap tilted in favor of supply. The promotion of entrepreneurship can be an effective strategy which will take away these graduates from wage employment environment to an entrepreneurial business where all of them can be self-employed and in addition will promote employment for others also. The entrepreneurial inputs can be given through various models. It can be combined in each and every TVET courses or can be given to the interested ones after graduation. It would help in diverting a significant percentage of students from wage employment to self employment and entrepreneurial careers, therefore, improving their economic and social status and bringing the unemployment down.

## **Entrepreneurship in CTEVT Curricula**

An entrepreneur development component in CTEVT curricula has already been included, but these inputs being provided in an unstructured manner without any clear focus, are not able to give expected result. The entrepreneur component varies from trade and level of the training programs. The technical school leaving certificate (TSLC) training programs in engineering area have 39-156 hours of entrepreneur development component. Whereas, TSLC programs in agriculture have 78-156 hours of entrepreneur development component. The entrepreneurship in diploma programs varies from 0-105 hours in different subject area. Almost all short term trainings have 20 hours of small business management. There is one TSLC (15 month) program on entrepreneurship development (Ghimire, 2010). In some trade, entrepreneur development is combined with environment, community development and communication.

## **Way forward**

The key to success is hard work and perseverance. "I will drink whole of the ocean" says the persevering soul. "At my will mountains will crumble". Have that sort of will and perseverance and work hard, you will definitely achieve success.

Swami Vivekasnanda

One of the goals of CTEVT is to promote entrepreneurship skills as a basis of employment on TVET graduates. Therefore, the entrepreneur development component in TVET system in CTEVT has already been integrated; however, the existing entrepreneur component into the curricula was developed by the technical experts rather involving entrepreneur development experts in the process. As a result, the existing entrepreneur development component became trivial in terms of contents and theory based in term of methodology. In this scenario, it seems important and urgent to revise the existing curricula and make it more consistent focusing more on competency based approach. As in other technical skills, it is also require mastering the entrepreneurial skills to become a successful entrepreneur. The key competencies like market analysis, preparing business plan, access to finance, marketing products should be learnt by TVET graduates who really want to become an entrepreneur.

The packages of entrepreneurship component need to develop separately for diploma level, TSLC level and short term courses. These packages should be integrated to almost all programs of CTEVT. A separate comprehensive package could be needed for the graduates of TVET system who really want to be an entrepreneur. Entrepreneurship training for TVET graduates needs to conduct at a regular basis in at least five development regions in CTEVT constituted training institutes. The integrated component of entrepreneurship in CTEVT curricula will contribute in the motivation and orientation to trainees towards starting and managing small and medium enterprises. The emphasis needs to place on creating and encouraging the ability among trainees in application of concepts and techniques. All trainees will develop entrepreneurial values, attitude and spirit.

The curricular content of entrepreneurship for TVET graduates should be comprehensive and include all practical activities such as identification of product/service, marketability aspects, financial aspects, managerial aspects, business plan preparation and in addition, needs to include "In-Plant Training". In-plant training is a system of training where the trainees are placed in small/medium scale industry units so that they get relevant and useful experience for setting up their own small units (Dhameja 2008). It is necessary to enable TVET graduates to design and implement the enterprises in real life situation. Thus, the trainees will develop technological knowledge, technical skills, business planning skills and leadership skills as well.

Most of the instructors in CTEVT system are from technical background without having entrepreneurial experiences/knowledge. Building capacity of those instructors is very essential for the effective integration of entrepreneur development in technical and vocational trainings. Instructors' training for developing a pool of experts and using them for the effective implementation of entrepreneurship training in TVET system is the need of the day. In addition, appropriate teaching/learning materials should also be developed to ease the teaching learning process and to maintain the consistency in content and quality.

## **Conclusion**

It would be worthwhile to quote Mother Teresa as she said;

"What we are doing is just a drop in the ocean. But the ocean would be less because of that missing drop"

The inadequacy of entrepreneurship is one of the hindering factors to accelerate the process of economic development in Nepal. National planning has given greater emphasis to physical and related aspects like technology, finance, infrastructure etc without paying due attention to training and development of entrepreneurs who use and manage it. Our TVET system has also not given adequate consideration to training of potential entrepreneurs. In-puts for self-employment and entrepreneurial development are either not yet provided or are provided in unstructured way. There is an urgent need to make sincere efforts in this direction. There is a need to embed the entrepreneurial skills and competencies on the trainees of TVET programs. This concept for "integrating entrepreneur development into the technical and vocational training system of Nepal" has potential for developing the CTEVT graduates motivated toward creating their own business as a real option for their lives. Developing a pool of trained instructors in the system ensures the effective delivery of entrepreneur development training within TVET and supports the transfer of knowledge/skills to graduates of CTEVT strengthening their entrepreneurial competencies along with enhancing their capacity to develop viable business. The concept elaborates the ways of integrating entrepreneur development in the TVET in Nepal which ultimately leads for the development of the entrepreneurs throughout Nepal creating employment opportunities that contributes in increased income capacities and making a substantial contribution towards the local and national economy.

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## TEVT Financing in Nepal: Issues at Crossroads

Ram Hari Lamichhane, Ph.D.<sup>1</sup>

### **Abstract**

*Geo-political status of Nepal doesn't support to grow big industries, so it has to give priority on self-employment through small and micro enterprises. For this, skilled workforces are required, which TEVT sector can develop. However, there are many issues for TEVT financing. Lack of clear policy is one of the major issues in TEVT financing. As a result, financing mechanism, priority areas, demand based financing and roles and responsibilities of financing are not clear. The second issue is the absence of priority area and lack of standard cost calculation system which affects the proper allocation of budget in different sectors of TEVT. The third issue is lack of coordination between the TEVT stakeholders, so resource duplication and unequal distribution of resources exist. Sources of fund and Low budget allocation for TEVT sector are considered as fourth and fifth issues of TEVT financing. The Private sectors are not contributing directly to the TEVT financing other hand, public budget is very low in TEVT. Therefore, TEVT financing system should be improved to eliminate issues which are at crossroads.*

### **Background**

As a small country between China and India: two larger economic power of the world, Nepal has to focus on human resource development for self-employment. Nepal can't compete with China and India in technology and production through large industries due to its geographical constraints for international trade. Therefore, its focus should be on service industries like tourism, health, and education; another focus should be on local resource based enterprises such as hydropower, non-timber forest product (NTFP), agriculture, and alternative energy. For the development of such enterprises, skilled human resources are the key factor that t enhance the capacity of labour and generate employability. In Lichhabi Era, Nepalese were well known as skilled persons in arts and crafts, but those tags have been eliminating gradually. Since 1960's, Nepal has been implementing different technical education and vocational training (TEVT) programs to generate skilled workforce. Government has spent lot of money for TEVT programs and private sectors are also investing since 1990's; however, there is still gap between demand and supply. This situation will remain as it is if we neglect the major issues of TEVT financing such as lack of financing policy, allocation of budget and per unit cost calculation, coordination between stakeholders, sources of finance, and less budget for TEVT.

### **Discussion on Issues**

Financing policy works as a global positioning system (GPS) to show the direction of ultimate destination. In Nepal, our TEVT system couldn't reach its destination due to the lack of concrete financing policy. Financing policy should give the answers of what, where, whom, who, when and how for different types of TEVT programs. We are implementing TEVT program as crisis management and financing as an ad hoc basis. There are different groups of youth who need TEVT programs. On one hand, there are absolute poor and socially discriminated. On the other hand, they can afford, but they don't know how to choose right program. Due to the lack of concrete policies, rich and highly qualified youth are also in government funded basic and mid-level TEVT programs. Public institutions are getting budget in a traditional way such as budget either equal or additional ten percent of last fiscal year.

Furthermore, there are not any policies to compensate private institutions from public fund and private institutions are not supporting poor and disadvantaged group except mandatory scholarship for two trainees in each batch. Therefore, poor people can't enroll in private institutions. There are institutions in both urban

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and rural areas. Similarly, there are social diversities of trainees as well, but we don't have clear policy to fund such diverse situation. As Durango (2002) stated,

“There are different and conflicting interests and perspectives between governments and the private sector on the areas of focus and utility of public funding. The private sector tends to lobby for the focusing of resources on demand-driven formal sector training and the skills upgrading of their employees through short-term specific training. On the other hand, the government's mandate extends beyond these specific requirements of the private sector to include the small scale and informal sectors and other disadvantaged target groups like the pre-employed and the unemployed.”

Without clear financing policy social inclusion is not possible. Therefore, considering the geographical and social structure of Nepal, we have to follow both vertical and horizontal equity on financing policy in TEVT.

There are not any standard norms to allocate budget and calculate per unit cost of TEVT programs. As a consequence, per unit cost for the same types of training and program vary. For example, cost of 3 months plumbing training for one trainee is about Rs. 3000, Rs.4000, Rs. 10,000, and Rs.20, 000 to 40,000 in Skills Development Training Centers, Small and Cottage Industry Offices, CTEVT, and donor supported other projects respectively. For TEVT students who enroll in any level based on their interest, standard unit cost should be developed with scientific calculation methods (ADB, 2006). Similarly, budget allocation is based on supply side not with demand side. This situation indicates that costs are based on available budget not the actual need for the program. The Government has limited resources so, public institutional costs are to manage ritual (training for training) programs. Donor based projects are providing enough budget, but there are high chances of mismanagement due to weak monitoring.

The vocational training cost differs from project to project and donor to donor and calculated on ad hoc basis. This situation is supported by the report of Durango (2002) and stated that “within the TVET sector itself there are no effective concepts, mechanisms and procedures for prioritizing and justifying budgetary appropriations. In many cases this tends to break the small "cake" into too many small fragments thus reducing impact.” Due to the lack of National Vocational Qualification Standard, government's priority areas of training, and norms to calculate the cost of the program to meet such standard, TEVT funding has become vehicle without driver. Therefore, there is a kind of indirect competition among donors.

The lack of coordination between stakeholders is one of the strong issues and challenges in TEVT financing in Nepal. There is weak coordination both vertically and horizontally. For example, the coordination is not effective among the departments of ministry; inter ministries, government and donors, and donor to donor. As a result, financial resources are scattered, standard costing system has not taken place, duplication of resources, and difficult to trace actual financial data for the TEVT programs. Due to poor coordination, some districts are getting more programs and some are not getting any programs. In this regard, government has been unable to coordinate the donors. As a result government budget has been scattered and contributed for the resource duplication. For example, government has allocated NRs. 1,624,666,000 budget for TEVT programs in 2010/11 for different ministries (MoF, 2010). Ministry wise allocation is as follows.

TEVT Budget for Different Ministries in 2010/11

Ministry	Budget Amount
Ministry of Education	1,361,925
Ministry of Labour and Transport Management	137,334
Ministry of Tourism and Civil Aviation	57,300
Ministry of Industry	31,538
Ministry of Agriculture	28,304
Ministry of Physical Planning	8,265
Total	1,624,666,000



There is not any coordination to use such funds and organizations are utilizing the fund for duplicating the same works through different sources such as curriculum development, teacher training, and workshops/seminars. As a weak coordination and controlling mechanism of government, most of the donor agencies became vocational skills training provider and implementing projects directly. The issues of coordination always related with national policy because policy implementation plan gives the role and responsibilities of each stakeholders. Therefore, national TEVT policy should be finalized to initiate coordination and implement new TEVT projects.

The source of finance for TEVT is one of the contradicting issues in Nepal. There are about 200 private technical schools, 17 public technical schools managed by CTEVT, and 12 vocational skills development centers managed by Directorate of Skills Development (CTEVT, 2010). All private schools run technical education programs which are financed by students and their parents, but most of the programs in public schools are financed by government. Similarly, more than 90% of the vocational skills training programs are financed either by government or donor agencies. Therefore, we have either public source or parents who are financing for the TEVT programs. Many countries have introduced vocational training tax or levy from the private sector. In South Africa, 1% of total remuneration, 1% for all employers with a wage bill over Z\$2000.00 per month in Zimbabwe, and 2% levy on companies with a minimum of 4 employees in Tanzania (Durango, 2002). This source of finance can contribute to the employees of the enterprises for their skills advancement.

The last but not least issue of TEVT financing is less amount of public budget allocation. On the basis of educational data, about fifteen percent of the students who enrolled in grade one complete the School Leaving Certificate (SLC) and remaining 85 percent leave the schools in different grades (MoE, 2005). As a result, about 500,000 youths enter into the labor market every year, but there are not systemic alternative educations for them. TEVT programs have been addressing about 50,000 youth annually including private sectors (CTEVT, 2010). Due to the lack of budget, government programs can't include all of them. Those who have received the training, majority of them are also not linked with employment because there are not funding mechanism for post training support. A research conducted by writer in 2006 with 714 TEVT graduates, 92 percent of them stated that lack of finance is the hindering factor for getting training and starting self-employment (Lamichhane, 2006).

According to the annual budget of government (MoF, 2010), the allocation for TEVT program is very low. In 2010/11, the budget allocation for TEVT program is 2.36 percent of education budget (MoE budget is NRs. 5,782.7 million and TEVT budget is 136.1 million including Skills for Employment Project). This is considered as very low budget for the TEVT considering its importance to empower unemployed youth who contribute to increase income of the individual and generate additional revenue for the nation. For example, an ordinary labor is getting about \$150 per month as a wage in the Middle East. If the people with skills training go there, they can earn more than that. According to the foreign employment agencies and returned workers, person with 3 months skills training will get double, 6- 12 months training will get triple, and 2 years training will get four times more wage than an ordinary labor.

### **Conclusion and Recommendations**

Thus, TEVT policy statements are there, but concrete financing plan is lacking to smooth operation of programs. Lack of national qualification standard, prioritization of area of training and norms of costing for program contributed for large variation in the cost calculation. Because of weak coordination among the stakeholders, available funding is also not utilized effectively and efficiently. To generate sustainable financing, private sector contribution should be brought into the TEVT financing basket. Therefore, government should develop implementation plan of financing policy with clear roles and responsibilities of

each and every stakeholders. Similarly, it is urgent need to establish National TEVT and Employment Fund (NTEF) to channelize one door financing policy where all stakeholders contribute to the basket fund. Then, NTEF will develop costing norms, funding mechanism based on performance, monitoring and evaluation system, and support for innovative youth development programs. The public fund should be allocated to pre-employment training especially for deprived group. The donors' funds should be used to finance long-term investment such as infrastructure, equipment, and human resources development. The fund should be channelized through public, private and NGOs to address the needs of all social segments. The NTEF should be autonomous body to facilitate both private and public sectors. Then, government, donors and even private sector should contribute adequate budget in the fund. Considering the practices of other countries, education budget of Nepal should be at least 4% of GDP and 10% of education budget to TEVT sector.

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# Apprenticeship System: The Boundless Opportunity for Experiential Learning

Usha Bhandari<sup>1</sup>

## Abstract

*All learning comes from the application of the new conscious understanding in the real life experiences. A modern perspective on learning would not be complete without mentioning the increased awareness regarding the importance of experiential learning and its related approaches. Among the many different approaches of experiential learning, apprenticeship is one which not only provides learning experiences to the learners but also help them to be able to live gainful life through industry based experiences. Apprenticeship blends experiential learning with traditional classes and has both theoretical and practical instruction which is acquired under no compulsion. Although apprenticeship system is not new, it can be considered a renewed approach in the field of vocational training as it is career oriented and directly related with the application of theory into practice.*

## Introduction:

*Nothing ever becomes real till it is experienced -- even a proverb is no proverb to you till your life has illustrated it. --John Keats (1795-1821).*

It is often said that we learn from experience. It is true not only in the past when the theory of experiential learning was propounded but it remains pervasive in the current society too. In the current society, learning through experience is considered as important whether formalized by educational institutions or learned informally in day-to-day life. All forms of experiential learning are a valuable complement in academic experiences as it builds insight into the realities of career and educational opportunities (Saddington, n.d.). In the recent years, the challenge is not to provide students with the mere learning experience but with the authentic learning experience. Hence, what makes learning an authentic experience is the issue that needs to be discussed.

Apprenticeship is a unique form of education where apprentices not only learn skills in an academic setting but also learn in a practical work-based environment (Sharpe and Gibson, 2005). If it is so, then the question remains whether apprenticeship system is an authentic learning that allows our learners to go through experiential learning cycle.

This article discusses the major essence of experiential learning and relates it with the apprenticeship to explain how apprenticeship system provides students with an opportunity to enjoy the bests of experiential learning. Further, this article may strike the readers' mind to think about mapping out the possibilities of bringing apprenticeship system back in place in the 21st century Nepal.

## Experiential learning:

Carl Rogers distinguished two types of learning: cognitive and experiential. The former corresponds to academic knowledge such as learning vocabulary or multiplication tables where as the latter refers to applied knowledge such as learning about engines in order to repair a car. The key to the distinction is that experiential learning addresses the needs and wants of the learner as it is the attainment of knowledge,

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skills, and/or abilities through observation, simulation, and/or participation that provides depth and meaning to learning by engaging the mind and/or body through activity, reflection, and application (Morgan, n.d.).

It is well recognized that the experiential learning engages students in critical thinking, problem solving and decision making in contexts that are personally relevant to them. It is a less abstract learning tool that allows the learner to test theory and ultimately facilitates for cognitive as well as affective and behavioural learning. The learning may happen at anywhere: in the classroom, field of occupation, or the outdoors. This approach to learning also involves making opportunities for debriefing and consolidation of ideas and skills through feedback, reflection, and the application of the ideas and skills to new situations (Huys et.al, 2005).

Since the beginning of its origin, experiential learning is explained by many theorists as they have developed various models which discuss the theory of experiential learning. Among these models, Kolb's experiential learning model is the most familiar one (Smith, 2001). With the help of four different stages, his model describes learning as a process in which the learner gets opportunity to test new concepts and modify them as a result of the reflection and conceptualization (ibid). Followings are these four stages.

- According to his model, at first stage, the process begins with the concrete experience which is the immediate experience and the grasping of the knowledge.
- The second stage is the reflective observation that is a collection of data through observation and critical thought.
- The third stage is an abstract conceptualization which means analyzing the data and developing concepts and theory from the experience.
- The final stage is the active experimentation where behaviour and knowledge modification occurs and the implications of the future are considered.

From the above four stages, it indicates that the learning is a process and occurs in a recurring cycle. However, there are some discussions within the literature regarding an optimum starting point in the Kolb's cycle of stages of learning which is likely that many of these stages are not separate rather occur simultaneously while a student is involved in experiential learning (Morgan, n.d.).

### **Apprenticeship system: an experiential learning:**

Experiential learning comprises of many activities. These activities can be a component of any course of any destination. As the aim of these activities is to enhance students' learning experience by meeting life and career development needs, many different forms of decentralized learning are considered as an experiential learning. Such as quality circles, learning workshops, project work, interactive learning, instruction/coaching, cooperative classrooms etc. Apprenticeship system is one of these approaches and has considerable differences in the aims, structures and level of dissemination, which combine working and learning in a systematic way over the learning by experience. In principle, apprenticeship offers the opportunity for apprentices to connect theory and practice, by applying what is learned in a real context and by work experiences that can enrich learning

The beauty of apprenticeship is as such that the learning in the workplace is considerably expanded by the integration of purposeful and experiential learning. Experience in the workplace not only contextualize learning giving students an opportunities to learn demanded skills, but also boost their morale and encourages them to invest their significant time in training (Ritche, 2011). In an apprenticeship system, the learning is tied to work which gives learners an ample opportunity to work as per the industrial norms and procedure which is not only limited to on-the job training. In other words, it is characterized by dual system meaning learning at institutions and at workplace. While learning at work conforms to the work activities, techniques, competence requirements of the relevant work environment, learning at institution provides

students with learning space, equipment and personnel resources as well as skills and knowledge in line with work (Huys et.al, 2005).

In addition, it is often realized that apprenticeships can enhance not only the practicality of an education but improve the connection between education and the labour market. In the apprenticeship system, the student spends one or two days in vocational training institutes and spends the rest of the week in the industry where the employer pays the student. This led to the gradual transition into the labour market (Plug and Groot, 1998). Further, it does not only facilitate the acquisition of work experience and learning in work situation towards the development of relevant competences but also contributes to the socialization in a work situation as part of a community of practice (ibid.).

### **Apprenticeship system in vocational training:**

The relationship between theoretical and practical experience and the development of knowledge and skill lies at the heart of the knowledge economy debate. Apprenticeships system is regarded as vital for addressing such skill needs of the economy as apprenticeship program can bridge the gap between theoretical and practical experience. Although, the nature of apprenticeship is described differently by educationist and economist, however, their description of apprenticeship describes the possibilities of enhancing learning in a similar way. Here, opportunities and scope for experience are tied to technical and economic objectives. While educationist considers the nature of apprenticeship as a form of learning, economist examine the dynamics of apprenticeship provision in training markets. The concern among educators is that whether the traditional forms of learning is adequate to prepare graduates for working life. What gives students a greater experience of workplace and ensure their success in the working life later?

For instance, tracing out the advantages of apprenticeship system in relation to vocational training would help educationist to rethink the apprenticeship system in vocational training. OECD (2009) initial report on "Learning for jobs: OECD policy review of vocational education and training" highlights four main advantages of apprenticeship system in relation to vocational training:

- First, it can offer a very high quality learning environment, allowing students to acquire practical skills under close supervision of expert worker on up-to-date equipment, recent working methods and technologies as well as develop key soft skills in a real world environment.
- Second, it facilitates a two-way flow of information between potential employers and employees, making later recruitment much more effective and less costly.
- Third, employer provision of workplace training provides a signal that a Vocational Education and Training (VET) program is of labour market value.
- Fourth, trainees in the workplace normally make a productive contribution.

### **Conclusion:**

How can learners attain the practical skills that are necessary to perform in the workplace is the great concern not only for the trainees but also for the educators and employers. Certainly, trainees are benefitted with the significant learning experiences gained at workplace with the appropriate blending of theory and practices. Apprenticeship system as one of the approach in experiential learning help learners to experience this opportunity creating link between theory and practice that is education and the workforce. For instance, learning based on experience and integrated into work activities while combined with deliberate learning and workplace learning certainly reduce the risk of skill shortages. Further, as pointed out earlier, apprenticeship in the form of experiential learning can be a cost-effective as well as preferred learning experience to the trainees as it motivates, creates self-awareness and personal responsibility, enhances team work and

improves communications skills among trainees which are effectively transferred back to the workplace (Ritchie, 2011).

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## Financing of Vocational Education and Training in Nepal

- Hari Lamsal<sup>1</sup>

### Abstract

*Education is considered as both public and private goods, and consumptions and investment. State needs to guarantee a minimum level of education to its citizens for their development and social development. But the situation is different in developed and developing countries. Most of the developing countries are not in a position to allocate adequate amount of public resources to education. This has directly affected on both the expansion and development of education, including vocational and technical education. Adequate emphasis on vocational and technical education is required to get momentum in the pace of development of a nation. In order to achieve the desired goals of development, allocation of adequate resources to this sub-sector is the most. Likewise, institutional arrangement certainly helps to maximize the efforts put in this area. Resources can be generated from various sources however partnership modality with the non-governmental sectors would be useful and effective for the development and expansion of this sub-sector.*

### Introduction

This article attempts to review the financing of vocational education and training (VET) in developing countries. It explores the concerns on who should pay for VET and financing modalities practiced around the globe. It also analyzes the existing financing practices on VET in the context of Nepal. Based on these analyses, this will also suggest some measures for the development and expansion of VET in Nepal.

### Context

Education is considered as both public and private goods. It is also consumptions and investment. It is provided both in e public and private sectors. State provides education to its citizens for their economic and social development. (NPC, 2010). For achieving such development, a minimum level of education is considered necessary which may vary country to country because of their priorities (Bolina, 1996). The priority determines the criteria to allocate resources to education. Generally, the allocation of public resources to education vary from three to eight percent of gross national products (UNESCO, 1993).

In order to fulfill the commitment made both at the national and international levels, every government has to allocate adequate amount of public resources to education sector. Once budget is available for education, then the redistribution among the sub-sectors of education happens. In order to address the concerns of sub-sectors, the fair and equitable distribution of resources is necessary. Hence, two concerns – adequate allocation of budget to education and its equitable distribution among sub-sectors of education are important. Most of the developing countries are not in a position to allocate adequate amount of public resources to education because of limited economic growth rates and State inability to set priority with reformed agenda. This has directly affected on both the expansion and development of education in such countries.

In addition to the budgetary constraints, developing countries have been facing other challenges. Firstly, how a developing country can provide adequate attention for the development of the vocational education and training to large number of school leavers and other interested youths? Second, how a developing country can set a priority between investment on capital formation and production of skilled labour force? Finally, how a developing country can strengthen the State institutions to promote the efficient use of available resources to education?

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Ensuring the primary/basic education to all (schooling facilities to all segments of society) eligible age groups is the first and foremost condition for every country because of national and international commitments on human rights declaration, international treaties, Education for All and Millennium Development Goals. This will come under the responsibility of the State. By nature, such responsibility cannot be transferred to others because it is strongly associated with the benefits to the society at large and the international commitments. The sole responsibility of the Government to the school education does mean that majority of the education budget certainly need to reallocate to this sub-sector. For other sub-sectors, Government can best harness the support of the private sectors, the community and the individuals. Under such principle, the partnership modality is required for the development and expansion of the Vocational Education and Training in developing countries.

The experience from other countries indicates that technical and vocational education occurs in a large variety of structures and under various responsibilities, both in public and in private sectors. As far as its financing is concerned, additional factors related to the socio-economic, political and administrative situations prevailing in respective countries have also been considered (Atchoarena, 1994).

**Nepalese context**

Presently, Government of Nepal has allocated 17% of public budget to education (MOF, 2010). The trends in budget allocation to education and their reallocation to different sub-sectors indicate that the growth of public budget to education is ranging in between 16 to 17% which is a dramatic increment if it is compared with the budget allocation of the past years. The table below indicates the amount of budget made available to education and vocational education and training by years.

Table: 1 Allocation of public resources to education and TVET by years

Items	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Gross Domestic Product (GDP) in NRs 000	589,410,000	654,080,000	727,830,000	815,660,000	991,320,000	1,183,000,000	1,283,555,000
National Budget in NRs 000	111700000	126885100	143912300	168995600	236015900	285930000	337900000
Education Budget in NRs 000	18059654	21250447	23005525	28390000	39086407	46616672	57827542
Share of Education Budget in Total budget	16.17	16.75	15.99	16.80	16.56	16.30	17.11
Share of TEVT budget in total education budget	1.16	1.38	1.43	1.60	1.21	1.65	2.36
Share of TEVT budget in GDP	0.04	0.04	0.05	0.06	0.05	0.07	0.11

- Sources: Economic Surveys and Red Books (MOF 2004/05; 2005/06; 2006/07; 2007/08; 2008/09, 2009/10 & 2010/11)



The figures given above are based on the resources channeled through Ministry of Education. It is important to mention that VET related training programs have also been conducted through other ministries and informal sectors. The expenditure incurred from these agencies is yet difficult to record which could be significant amount. It means there could be more expenditure in VET sub-sectors as reflected. In spite of the increase in the budget in VET sub-sector, public education system has yet to grow fully to cater the needs of people. At present, the share of public budget to VET sub-sector is inadequate to fulfill the requirements of different sub-sectors of education. The budgetary constraints are even growing because of;

- Increase in demands for access to VET opportunities (demographic growth demands more schooling facilities),
- Increase in number of teachers and their salaries,
- Inefficiency of using available resources,
- Increase in recurrent costs of education (such as instructional materials, other operating and management costs of schools).

In Nepal, Technical Education and Vocational Training (TEVT) is provided by (i) Council for Technical Education and Vocational Training (CTEVT), (ii) private institutions, (iii) technical institutions of the Universities, (iv) annex schools (public secondary schools), and (v) government agencies associated with other Ministries, and training programs supported by NGOs and INGOs. The programs under the TEVT in Nepal includes, (i) Technical School Leaving Certificate (TSLC) programs, (ii) advanced technical training (3-year Diploma and Proficiency Certificate Level (PCL) programs), (iii) short-term training opportunities, and (iv) opportunities for testing and certification of skills whether formally or informally acquired. However, the vocational education and training opportunities are limited in terms of their scopes and distribution. As mentioned earlier, the TEVT sector is at an early stage of development. As of other sub-sectors of education, this sub-sector also suffers from shortage of resources.

### **Financing modalities for VET -global perspectives**

Before discussing on financing modalities, it is necessary to discuss on the issue of who pays for VET. As VET is often funded by diverse sources, first of all it is important to ask who pays for VET (Tilak, 2002). Traditionally, vocational education was the responsibility of the employers and apprenticeship (Bolina, 1996). But at present, the situation has been changed. Several actors have been contributing for its development and expansion. Government has been becoming the main funding agency around the globe by increasing investment because it will create employment opportunities in the economy.

In addition to the Government funding, the contribution of parents, students/ trainees through the payment of different types of fees also account significantly. Likewise, qualification authorities also collect fees for the evaluation, accreditation, assessment and certification of qualifications. A number of groups, identified below, which contribute financially to the provision of VET (Bolina, 1996; UNESCO, 1993; Durango, 2002; and ADB, 2006).

- State: At different administrative levels, these mostly pay for public provision of VET for entry-level qualifications. They can also contribute via labour market policy in the case of provision of schemes for the unemployed. Increasingly, governments also make funds available for in-service training and lifelong learning.
- Employers: can pay for both public and private provision of VET as well as for both entry-level qualifications and less formal education. They can pay through levy-systems on the payroll, or they can directly buy education and training provision carried out by schools and private companies. They can also provide in-house training by employing special instructors.

- Employees: whereseeek continuing vocational training, they can be made to pay directly for their VET through fees or indirectly accepting lower wages for a training period. Sometimes, systems such as 'individual learning accounts' are available via which employees build up a reserve of paid training leave by contributing a part of their salary to such leave. In a system of apprenticeships, they can also be made to accept lower wages during the period of apprenticeship or be made to pay for it out of their own pocket.
- Students: seeking entry-level qualifications, can be made to pay directly for their VET through tuition fees or at a later stage by accepting a public or private loan for the duration of their education.  
  
Schools: raise (limited) revenue by selling products made by students or by selling courses and training materials in the market. Financing models for VET can only be described in ideal-types (Tilak, 2002) which does not fit in reality. In an actual arrangement, these are usually a mix of different types (Tilak, 2002). The models applied around the globe for financing of VET are as follows (Bolina, 1996; UNESCO, 1993; Durango, 2002; and ADB, 2006);
- Public financing: Government provides public funding to VET schools similar to general education. Such funding is channeled to schools based on the services they provide either through funding formula or lump sum grants. Modalities of public lump sum funding can also include performance-based contracts or tendering.
- Levy system: A levy is a type of tax for a specific purpose that is added to a company's general payroll. The idea behind the levy system for VET is that all companies are to pay a special tax for training, according to the wages they pay and the number of people they employ.
- Semi-market system: The market incentives will increase the provision and quality of training. They are directly aimed at stimulating demand, giving individual the choice where to take up training. These can take place in the form of voucher schemes or personalized accounts (like a personal bank account for training).

### **Financing modalities-application for Nepal**

Critiques argue strongly by highlighting the relation between unemployment prevailed in the country and existing education system. The general perception of existing Nepalese education is less relevant to engage graduates in the world of works. The graduates of the education system have been carrying only theoretical knowledge. In order to establish such ideas, the depth study might require. However, one can easily point out his/her concern in terms of unemployment in the country.

Nepal is in the stage of restructuring process which is experiencing the rapid transformation of societies in social, political, economic, technological, and education spheres. In such context, the change perspectives on the need and nature of VET should also be reviewed. We should consider that new challenges have begun to emerge.. Four sets of issues for financing VET should be reviewed. The answer of these concerns will open a way to move ahead.

- The first concern is the purpose and aim, or social and economic relevance, or the sort of returns from allocating resources to this sub-sector. The major question in this regard is why we should invest in this area.
- of the second issue is related with the levels of spending. It is difficult to say exactly how much money is sufficient, how much money would be adequate to reflect the value attached to social and economic benefits, and what about the amount that people are able and willing to afford.
- Thirdly, it is important to consider and decide who should pay for vocational education and training, or who should pay more, or less, than they have been doing now. The funding share of government, the level of tuition and other fees that students pay, and the financial contribution of enterprises employing

skilled workers, may be reviewed in terms of fairness and affordability. It should also be considered that vocational education and training is much expensive than general education. The higher cost associated with this is because (i) there is smaller instructor trainee ratio, (ii) installment cost on equipment, infrastructure, consumables (raw materials and spare parts), and (iii) operating cost is also higher. Because of higher cost the VET is considered imperative to search for different means of financing.

- Finally, for efficiency and transparency, policy makers need to consider multiple channels and mechanisms which are most suitable to transfer necessary funds from source to destinations and how financial flows best be managed.

The budget for Vocational Education and Training has modestly been allocated based on the increment of beneficiaries. However; there should be a mechanism of cost sharing or free or full pay by students so that the burden of government on financing VET will be minimized.. Therefore, financing of vocational education is of great concern of Government of Nepal. There is no doubt the public funding to VET should be increased but it is also equally important to develop and implement the mechanism of private financing. Hence the need for exploring other sources of financing to VET is equally important in Nepal.

- The main elements of incurring costs on VET are enrolment, duration and nature of programs (course length, attendance requirements and infrastructure needs), the outputs produced (qualifications achieved for school based training and or job attainment with regard to labor market training). Therefore, public funding on VET should be based on these principles.
- Generally, public funds should be allocated for recurrent costs (salaries, instructional and program maintenance costs) while capital costs (buildings and equipment) should be borne by external agencies or partners for one time purpose.
- Allocations to VET institutions should usually be as per student or class size or performance of the institutions.
- Funds to VET institutions can also be provided on the basis of program completion including students' performance. However, to expand opportunity funding on the basis of enrolment may also be appropriate.

Existing systems of funding should be reformed to promote;

- flexibility and decentralization.
- more autonomy for training institutions.
- closer ties with industry and more active participation by industry and other key stakeholders in decision making.
- partnership and dialogue between the state and its key social partners.
- private sector training.

In addition, the priority areas of funding should be determined through an elaborate and consultative strategic planning process. Funding should be based on clearly pre-determined criteria and on outputs/results. Funding mechanisms should be based on a performance-based competitive training market. The efficient and effective management systems of the financing of TVET should be supported by consolidating the information system on education, training and employment.

In order to develop VET sub-sector in a full-fledged manner, there is no doubt, more investment is required. Nepal has to assess its training needs and requirements in accordance with its goals and priorities and prevailing socio-economic conditions. In the mean time, it is equally important that Government resources are not enough to fund VET sector. Therefore, there is a need to search new and alternative resources and for

such provision private sector can be the potential area. As the employer becomes closer to the provision of vocational education and training, the training outcome becomes responsive to the labour market.

### **Sources of funding**

As mentioned earlier, public funding is often an insufficient and unstable source of support for VET. Therefore, VET in Nepal should be financed through a variety of sources, private sectors, enterprises, individuals, families, communities and employers.

- Public financing: There is a need to increase share of public budget to VET sub-sector. Involvement of governments would increase the link to vocational education and training more closely with social, economic and employment policies of the country. It will also help the distribution of training opportunities for the poorer and disadvantaged sections of the society (Masson, 2005).
- Partnership between public and private: Several options could be explored and several modalities can be practiced under the concept of the public private partnership. With the active participation of the employers a "Training Fund" for financing vocational training can be set up. Tax contributions from the employers collected through payroll levies or subsidies from the government can be transferred to the Training Fund. The management of funds can be handled by the concerned Ministry, the employers association and the workers' unions. Similarly, Governments can request individuals, enterprises and non-government organizations (NGOs) to share the financial responsibility for VET programs. The scheme of fellowship, grants and loan, sale of training/non-training services, provision of co-financing arrangement, sharing of cost with adequately defined criteria, production for profit, apprenticeship, and paid educational leave could be useful in this context (ADB, 2006).
- Enterprise financing: The enterprise/company can conduct the vocational training of its labour force directly and bears the entire costs of training. Often enterprises finance a major part of the training but actual training occurs in specialized vocational training institutions. Sometimes enterprises contribute a small amount of money to a central vocational training fund as taxes and these resources are used in different ways to finance training (Burke & Noonan, 2008).
- Financing from development partners: The development partners can play a very important role in developing VET systems in Nepal. The large amount of international aid can be used for setting up of a base of training capacity, developing the infrastructure and facilities, training staff and strengthening instructional systems. Mostly such support can be used for capital formation costs which can be limited for short periods (Masson, 2005).

Likewise, the donations of equipment and other materials from private sectors, individual and other organizations could also be useful. They can also offer technical expertise to different activities like curriculum development, assessment and examinations. The encouragement of income generation by training institutions through training with production could also be useful in the context of Nepal. Training levy funds based on levies imposed to the private sector should be dedicated to the training of employed workers. The levy should focus on the skills training and upgrading of workers to meet the specific needs of industry.

### **Conclusion**

Without adequate investment in vocational education, it is almost impossible to promote its development as expected. Therefore, Government continues to increase financing VET through public revenue. The policies to mobilize the potential sources available in the country and abroad help to expand and strengthen the training opportunities. But the development of private sector is also equally important for the development of VET sub-sector.

Vocational training systems should continue its search for generating additional resources through public and private sector such as government subsidies, enrolment fees in the long-term or contributions from associations and unions. They should maintain a certain proportion of income from payroll levies and use it

effectively for encouraging co-financing with enterprises. Local bodies can play active role in this regard. Business houses and industries should be promoted to provide non-monetary contributions in the form of equipment and new materials for the training centers.

Efforts have to be made to better utilize available resources by removing existing inefficiencies, weak accountability, improving organizational structures and proper application of new information technology. Vocational training systems should remain flexible with the ability to adapt to the changing social, economic and technological requirements of the country.

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## TEVT Expenditure: An Investment in Human Capital

Manoj Nepupane<sup>1</sup>

### **Abstract:**

*It is an attempt to explore importance of knowledge, skills and abilities of individual in light of human capital theory and analyze its impact and relevancy in TEVT context. It is prefaced with some theoretical aspects to justify education and training as a sector of investment in a form of human capital. Later it is linked with empirical evidence of past expenditure on TEVT and its impacts on socio economic development of the country despite limited data on TEVT expenditure.*

*The essence of human capital is that expenditure on education and training is investment, which helps to equip individual with employable skills, productivity and earning capabilities. Likewise, a country with high investment in education and training is more likely to achieve higher GDP growth rate.*

*Some international reports and literatures were also reviewed as a reference which further justify the positive correlation between investment in human capital and development level of the country. TEVT is the field that is closely associated with the productivity either of individual or Nation. Thus the investment in TEVT can easily be translated in to increased productivity if it is quality assured, need based, and demand driven.*

### **Background**

"If you want to get a head get an education." This old English maxim reveals the importance of education in individual's life to some extent. Education paves the way for individual to get ahead, means better-respected, better-dignified and more enjoyable life. That is why it is the investment, which not only returns greater social benefits, but also economic benefits, thus the economists have given the name 'Human Capital'. The essence of the human capital is that expenditure on education and training is investment, which equips individual with greater marketable skills, productivity and earning capabilities. Likewise, wikipedia defines human capital as a stock of competencies, knowledge and personality attributes embodied in the ability to perform labour so as to produce economic value (en.wikipedia.org/wiki/human\_capital, 5/6/2011).

Although Adam Smiths, who is supposed as a founder of economics, explains some facets of human capital, the term "human capital" was first used by Jacob Mincer. Mincer published an article entitled "Investment in Human Capital and Personal Income Distribution" in The Journal of Political Economy in 1958. Moreover, Gary Becker published a book "Human Capital" in 1964, which had become a standard reference for many years (ibid).

### **Returns in Human Capital**

Talking about human capital, health is also regarded as the vital component of human capital in recent years since healthier people not only work harder and longer but also think and learn clearly and well. To focus on education and training, health is not further discussed in this article. As per the human capital theory, the income difference between medical doctor and humanities' bachelor can be explained by their simultaneous cost of learning. Obviously, the money, time and effort invested by a student to be a Medical Doctor are far greater than that to be Humanities' Bachelor. Likewise workers trained in vocational skill deserves higher chances of getting better paid job than raw labours or graduates acquiring equal years of general education. In this regard, Landmark study by Lockheed, Jamison and Lau (1980) shows significant impact of farmers'

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education on agricultural productivity which proved that agricultural productivity is 7.4 percent higher on average for a farmer with four years of elementary education (Maria Harlt, 2009). This theoretical explanation fits on both micro and macroeconomic aspects. Likewise several recent studies shows significant correlation between the investment in human capital and level of development. A country with more investment on education and training has greater possibility of acquiring higher development level than with the investment of same amount in other sectors (Residual factor approach).

Education has both intrinsic and instrumental values for which Benjamin Higgins an eminent economist has named end and means (Higgins, 1994). Where end more or less stands for social benefits and means in the sense of instrument, which help to accelerate economic development. But for the economic development, physical capital is equally responsible as human capital. The simultaneous investment both in human capital and physical capital leads economy towards its optimum level, however the proportion between physical and human capital varies as per the level of development. Analyzing the data of several countries, economists have guesstimated a ballpark figure of 0.35 (approximately 1/3) as contribution of capital (Physical Capital) to National Income (NI). Likewise remaining 2/3 part contributed by labour, which includes both raw labour and human capital (education and training). Economists have further calculated the share of human capital distinguishing from labour, which is 43% for advanced countries and 33% for developing countries (Weil, 2009 p. 201). In this line of thinking, education and training is contributing one third part of our GDP.

### **Emergence of TVET**

Although, some technical schools had already been established, the concept of basic education, which was initiated in 2004, was the pioneer step towards TEVT enhancement. Actually the basic education program was based on the Gandhian Philosophy of economic self-reliance; however it does not deliver outcomes in desired level. Multipurpose secondary school came in practice in the support of US government after the basic education was dropped in 2014. This system gets continuity till 2025 and dropped in after the support was withdrawn by US government (Sharma, 1997). These multipurpose schools were converted into vocational schools after implementation of NESP in 1971. More than 120 vocational schools had offered vocational training in agricultural, industrial and business occupations. (Karki, 2010). The NESP, not only had added new dimensions in school education but also attempted to prioritize vocation education with new concept, which was manifested by the greater proportion of government budget relative to the general education (Sinha,2063 ).

Although NESP had introduced new approach of teaching vocational subjects alongside general subjects in secondary schools, this system was also registered in the list of unsuccessful program. It is often argued that vocational education programs were launched in Nepal only to appease donor agencies rather than addressing the local and national needs. It is crystal clear that all of these systems adapted to enhance TEVT sub-sector are based on imported theories rather than the real demand of country. That is why TVET system in Nepal didn't reap outcomes in desired level (Neupane, 2010).

The trade school system initiated in 2038 B.S., replacing the vocational training in secondary school was supposed as success program to some extent. The trade school contributed remarkably by delivering employment oriented training programs in health, agriculture and construction trades; however it has been blamed for not being cost-effective. Obviously, TEVT demands practical based teaching and learning process, so the operation cost of TEVT is greater than that of general education. But this cost should be viewed in the light of human capital theory. Cost is always associated with its utility or potential benefits. Therefore, without analysing the benefits or returns, it is unfair to blame a system costlier.

The concept of Technical Education and Vocational Training (TEVT) had come under priority only after large chunks of educated youths remained unemployed as a result of general education. On the one hand, these employment seeking youths were rampant through out the Nation. On the other hand, every sectors of the economy were suffering from scarcities of skilled workforces to accelerate the pace of economic and social

development (Belbase, 2002). It had been imperative both to reduce unemployment rate and provide quality workforces as per the need of society and the country. At the same time, CTEVT was established as an autonomous apex organization of TEVT sub-sector, conceiving as a single means to achieve both ends.

### **Expansion and Challenges of TEVT**

After the establishment of CTEVT in 2045, it has been expanding its capacity and has established wide network. Presently CTEVT is either supervising or running more than 400 technical institutions, while it had only six technical schools in 2045. In 1988, the annual enrolment capacity of CTEVT was only 200, however at present, the annual production capacity of CTEVT is more than 130 fold than that number. Although TEVT sub-sector is significantly expanded, the situation of labour market is same as it was two decades ago. Substantial numbers of graduates of technical schools are underemployed where as industrial sectors is still lacking human resources having required skills.

Regarding the investment in TEVT, this sub sector has hardly received one percent of total educational budget of government (Neupane, 2010). This proportion becomes further nominal if it is calculated in terms of total government budget. While talking about the private sector investment in TEVT, this trend has gain momentum these days. Significant numbers of private TEVT schools have got affiliation and substantial numbers of students are enrolling and graduating from these technical schools, however these graduates are not being easily absorbed in the job markets. The dynamics of society is that one set of skills already acquired, which used to be adequate in past will not be sufficient for future (Khaniya, 2007). TEVT programs, therefore must be reformed timely to address the implication of changing labour market, to include appropriate societal values and attitudes, and to embrace new technologies and assure quality. Thus, a national framework for quality assurance is indispensable together with the wide accepted qualification standard, certification process and valid assessment system (UNESCO, 1999)

On the one hand, government is investing nominal amount of budget in TEVT sub-sector therefore needy communities are not adequately benefitted by such programs. On the other hand, private sector is focusing more on profit rather than quality so these programs neither benefit needy group nor contribute in labour market at desired level. If we can't make TEVT benefit to all, in the end it will benefit to non. The policy should therefore, be revised to address the both issues of quality and relevancy. In this regard, UNESCO, 1999 mentions,

*'Government and private sector must recognize that TVE is an investment, not a cost, with significant returns including the well being of workers, enhanced productivity and international competitiveness.'*

Knowledge and skills which are part and parcel of TEVT can be regarded as an engine to provide multidimensional contribution including economic growth and social benefit. It can help individual to escape from poverty by raising their output and generating income (UNESCO, ILO 2002). The cost of TEVT, therefore should not be the issue, although the operation cost of TEVT is relatively high. We can get several examples of individuals who are unemployed despite having thirteen years of general education but thirteen weeks of TVET is ample to make him employed if it is quality assured and relevant to the job market.

### **Conclusion:**

The operation cost of TEVT is relatively higher than the general education but this should not be viewed absolutely. The potential benefit of TEVT is also far higher than that of general education, because of its high instrumental value. This means the graduates of TEVT are equipped with employable skills and are more productive. How far the TEVT is productive it is also equally sensitive. TEVT programs will be effective in real sense, if and only if they are reformed timely to address implications of changing labour market., to include appropriate societal values and attitudes, and to embrace new technologies and assure quality.



TEVT should be the priority of the nation which can address unemployment problem and poverty issue, however government has been investing low amount of resources in this sector. Unlike government investment, private sector investment is in rising trend, however they are focusing only on profits keeping quality and labour market needs aside. Because of these two reasons the needy people of the country are deprived of quality TEVT.

To sum up, quality TEVT programs should be the panacea for the country to come out from the vicious circle of the poverty and unemployment, however the cost of TEVT is relatively higher.

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## Curriculum Revision for Effective TVET

Diwat Kumar Shrestha<sup>1</sup>

### Abstract

*Curriculum revision is one of the major tasks to be done by the agencies which involve in the training business. Need for curriculum revision, models and process for curriculum revision are the main contents incorporated in this article. The curriculum revision will refine the job of training institutions and give the clear path to follow for the better employment situation of graduates. The strategies of curriculum revision should be reflected towards the market based training and education; due to this the employers and the industries feel the ownership towards technical institutions and its programmes. This will be able to convince them towards their duties and responsibilities for producing technical workforce inside the country. Technical workforce is the great need of the country, but the unemployment of technical workforce will create greater problem in the country. Therefore, "focus on employment" should be the motto of training providers. Timely revision of curriculum according to the demand of the market attracts trainees and employers towards training programmes.*

### Introduction

The supply of technical human resources simply does not create its own demand. Therefore training provisions for the poor has been powerfully shopped by offering demanded trainings by the targeted groups., (ILO, 1999). The training programs, which focus on the needs of majority people, will be more successful. Timely revised curriculum according to the demand of the market attracts both trainees and employers towards VET programmes.

Curriculum is the heart of any educational system which is a systematic group of courses or sequence of subjects required for graduation or certification in a major field of study. A **curriculum** is composed of those **classes** prescribed or outlined by an **institution** for **completion** of a program of study leading to a **degree** or a program of courses to be taken in pursuit of a degree or other objective. It contains the three basic tenants of teaching; planning, implementing and evaluation. (Thanikachalam V, 2005). Curriculum may be changed in due course of its implementation but it is never changed in terms to enhance students' capability to learn.

Curriculum revision and employment directly correlate to each other in TVET. If employment is not met as stipulated, curriculum revision automatically comes in picture as solution. Each and every training institute should annually conduct the survey of the graduates, which gives the reflection of employment and demand of the programme as well. The reports obtained from the survey can be the measuring rod of Technical Training Institutions.

If technical institutions have already low employment status, curriculum revision or necessary programme revision have to be done as soon as possible to sustain the institutes and bring them in the right track. Curriculum revision can be a solution in the following situations: (Sharma, T.N. 2004).

- Employment status of the graduates is in decreasing trend. (If follow-up studies of different technical institutions are getting this findings).
- Technical school graduates are not able to operate latest model of machines in the industries and they have no ideas about modern safety rules and regulations. (Views of Industrialists in the follow-up study).

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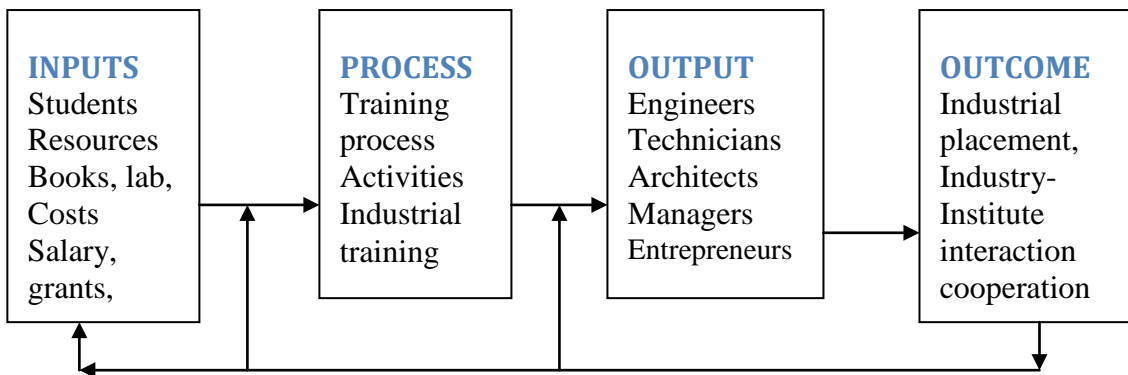
- Many curricula are static from many years.
- Instructors are not getting any refresher training since many years.

### **Model of Curriculum Revision**

System approach with the active participation of employers should be applied as the model for curriculum revision. Students, teachers, equipments, facilities, subjects, examinations, future jobs, past education, evaluations etc. are the main elements of education and training system. Each and every element is important part of the system; even one element goes wrong also it can create big problem in the whole system. System approach is the philosophy used to solve a problem as a whole. The system approach is designed for the curriculum revisions are as follows (Brahadeeswaran D, 2005).

- A. The problems on existing curricula should be defined and objectives should be finalized to address the existing problems.
- B. The objectives of the system should be viewed in relation to larger systems or the whole system. The main objectives in this steps are:
  - Interest of employers.
  - Real employment status of the graduates.
  - Review of existing resources.
  - Involvement of employers in planning and management of the training programmes.
- C. The existing curriculum must be evaluated thoroughly by the expert panel.
- D. Now the optimum design steps involve the planning, evaluation, and implementation of new alternatives, which offer innovative and creative departure of whole system.
- E. The decision makers and experts should make induction and synthesis of the work done carefully.
- F. Planning is conceived as a process in this step.

### **The System Approach for Curriculum Revision**



### **FEEDBACK (Internal and External)**

Environment, Government policies, Industrial recruitment

Opportunities, Scope of self employment etc.

The system approach application should be done after the evaluation of four important areas.

- A. The job of skilled workers.
- B. Goals and objectives of technical programmes.
- C. Course details, responsibilities of faculty, duration, ratio of theory to practical, laboratory to in plant training etc.
- D. Method of operation, training, evaluation etc.

Based on this approach analysis of feedback the revision of curriculum should take place efficiently and effectively.

### **Process of Curriculum Revision**

A curriculum actually involves many elements. Each of these elements is in fact a variable, and does in fact take on different values in curriculum variation. In revising curriculum each and every element of curriculum should be evaluated thoroughly to make it most effective and efficient. The following steps will be followed in the revision of curriculum (Rathy G.A., 2005).

- A. Objective setting for Revision.
- B. Selection of appropriate revision method.
- C. Identification of information/ data sources.
- D. Construction of data collection instruments.
- E. Development of strategies for data collection.
- F. Pilot testing.
- G. Large-scale data collection.
- H. Data Analysis.
- I. Preparation of report and sending to decision makers.

Different tools should be used for gathering information and data. The important tools to be used are as follows:

- A. Questionnaires: for school management, teachers and experts, graduates and owner of the industries and organizations.
- B. Interviews: for managing committee chairman, chairman of the chamber of commerce and industries and other subject related institutions, top level officials etc.
- C. Discussion and Feedback Collection: from the groups of people, through workshops, seminars and media like Radio, Televisions and different audio visual aids.
- D. DACUM analysis: Duties and tasks analysis involving the similar types of co-workers to identify the actual job specification. Skills and Knowledge needed should be identified by the panel of experts on the basis of duties and tasks.

E. SWOT Analysis: This is the type of analysis through Strength, Weakness, Opportunities and Threats of any types of programs and organizations. The analysis consists of two parts:

Part I: Analysis of organization's internal environment (Strengths and Weaknesses).

Part II: Analysis of organization's external environment (Opportunities and Threats).

Findings of SWOT analysis will:

- Provide a framework for planning the future activities of the institution.
- Enable us to build on our strengths and take advantages of opportunities, minimize or rectify our weakness and overcome threats.

Technical Skill Delivery Standard (TSDS) should be reviewed timely to deliver the skill training in an appropriate way.

Curriculum should not be sent at once for the application in all the schools, after completing revision. Curriculum Revision Committee, after completion of each phase should choose a school in each course for pilot testing. Only that school will implement the new curriculum. After the successful operation, for one or two years, the curriculum should be circulated for other remaining technical schools. If there are some changes to be made after pilot testing, these should be incorporated and refined in the curriculum.

### **Conclusion**

The success of any training programme depends on a broad range of circumstances within the country. However, training by itself will not be effective unless the conditions for the deployment of learned skills are favorable. This includes the political and economic climate of the country. The first and foremost precondition is the creation of jobs. Unless jobs are created, training runs a high risk of being ineffective. Yet a strong argument can be made that an overall environment favoring productivity growth is pitifully incomplete if workers lack requisite skills. Thus, even if training does not immediately lead to employment or the rates at which graduates join the labor force is low; some training may still be justified. If trainees are unable to find employment immediately upon completion of their programs, then the real value of training may be in its provision of a more durable core of basic skills that leads to self-employment (Sharma, S. R. (2005).

There are two different priorities inviting the active population to training. The authority has the priority to expand the coverage ensuring accessibility and affordability of the training. Financially, the cost benefit analysis of the programmes conducted by the government is never cost effective especially in developing countries. But, on the contrary, the industrial sector needs cost competitive programmes both financially and economically.

The poor training and certification system employed in industries and business has resulted in lesser efficiency of the employees, more time to accomplish even a small product or job and high cost of forced training at the cost of employers. Once the industries and business sector have acquired one set of technology and the employee adopt enough to this technology, it is expensive to adopt newer technology and train the working staff to that technology. They are less willing to select this option unless they lead to bankruptcy.

The proper coordination between the training providers and employers will ultimately be a win-win situation both technically and financially. Even a small fraction of the fund that is currently spent on workforce development, if allocated to the training providers, becomes a cost effective investment for them in return of the training in emerging technologies.

This might be a guiding principle for the sustainable industry training provider partnership. Presently, this is totally lacking as if training providing and employment are two different and dissimilar entities and activities. The establishments of industry-school partnership programmes are the solutions for effective TVET.

The curriculum revision will refine the job of training institutions and gives the clear path to follow for the better employment situation of graduates. The strategies of curriculum revision should be reflected towards the market based training and education; due to this the employers and the industries feel the ownership towards technical institutions and its programmes. This will be able to convince them towards their duties and responsibilities for the generation of technical workforce inside the country. Technical workforce is the great need of the country, but the unemployment of technical workforce will create great problem in the country. Therefore, "focus the employment" should be the motto of training providers.

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## Result Measurement in Technical Education and Vocational Training Programmes

Siroco Messerli<sup>1</sup>

### Abstract

*The way results of Technical Education and Vocational Training (TEVT) programmes are currently measured is increasingly insufficient to satisfy the growing pressure from parliaments and taxpayers to attribute outcomes and impact to public funding of the respective interventions. The National Vocational Qualification Frameworks (NVQF), now frequently developed and used, may be giving partial answers but cannot be used to measure the results of a specific TEVT intervention. In the area of private sector development, emerging tools such as the result chain have been successfully applied to reduce the attribution gap and generate reliable information on outcomes and impact at moderate cost. However, before such tools can be applied in the TEVT sector, they need to be scrutinized and adapted with regard to their practicability and relevance. The attempt to apply the result chain to a TEVT programme currently being implemented in Nepal shows, that it is certainly a useful additional project planning and monitoring tool but also raises questions with regards to its adaptation. Furthermore, although the setting of universal indicators may potentially be a first step to measure, compare and aggregate TEVT interventions across programmes, countries and regions, their development and measurement needs yet more discussion.*

### Result measurement for whom?

Measuring the results of an intervention - be it from a Government programme or a donor-financed project - is widely practiced. However, funding and time are usually not sufficient for a rigorous proof of the resulting outcomes and impact through comprehensive, statistical and independent assessment. In most cases, programmes are monitored lightly against wish lists of indicators usually set by those who commissioned the intervention. The latter generates sufficient information on activities and outputs but regularly lacks numbers and facts on immediate and intermediate outcomes which can be attributed to the actual intervention.

Over the years, the pressure to measure and report on the results of Technical Education and Vocational Training (TEVT) interventions has been growing rapidly. TEVT programmes are largely financed by public funds either from the national budget of a country or through donor aid. In both cases, parliaments are concerned over accountability. Consequently, they challenge the claims of the implementing agencies that the allocation of financial and other resources to a certain TEVT intervention actually leads to the intended outcome and impact. Or, as Tanburn (2008) puts it

*Practitioners need to seize the initiative and to develop answers, before someone else does it for them. In the absence of good data, critics will always be able to say: 'if you cannot measure it, maybe it is not there'.*

Furthermore, ministries and donor agencies require reliable and comparable information with sufficient accuracy that can be easily compared and aggregated to make informed policy decisions. In countries where the TEVT sector has been supported with donor aid for decades, such as Nepal, the pressure to deliver evidence by quantifying outcomes is particularly high.

However, this desire to measure results and demonstrate accountability of aid interventions is highly contested. Eyben (2011) points out that being able to measure the change does not yet reveal much about how the change was achieved and what can be learnt for future policy and practice. Furthermore, the

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difficulty for many TEVT programmes is to measure results beyond the outputs (such as number and skills levels of the graduates) and actually assess the outcomes in terms of improved employability. Nevertheless, Subedi (2010) points out that any vocational skills training intervention should contribute to livelihood improvement by means of increased opportunities for employment or self-employment. It is widely accepted that training is a means to an end. It is not an end in itself.

However, the chances of successful insertion of the graduates into the labour market depend on many other factors beyond the vocational training itself; such as the absorption capacity, transparency and flexibility of the labour markets, the motivation and will power of the individual graduate to survive in the new job and the opportunity costs of alternatives such as further education.

### **Common practice of result measurement in the TEVT sector**

With regard to the intensified discussions on the effectiveness of TEVT programmes, it is important that there are reliable and comprehensive methodologies for evaluating the output, outcome and impact as well as comparing the TEVT interventions among themselves (Macchi et al, 2009). For decades, evaluators and managers of TEVT programmes have used a wide range of tools such as stakeholder consultations, observations, in-depth interviews, focus group discussions, in-house or outsourced surveys, secondary sources, case studies, control groups and tracer studies for measuring the results of TEVT interventions. However, the practice shows in many cases that result measurement in TEVT focuses mainly on outputs. If outcomes and impact are assessed, their measurement generally remains fragmented, difficult to attribute to the intervention and often does not allow for aggregation and cross-programme or country comparisons.

As a way forward, there are attempts in various countries (including Nepal) to design National Vocational Qualifications Frameworks (NVQF) as an instrument to determine the quality of training programmes at the output or outcome level (Karki, 2010). Potentially, NVQF can be a powerful tool to further strengthen result measurement in TEVT. A key instrument in NVQF is the definition of occupational standards, which are measuring the result of training at the output level. These are often accompanied by quality assurance systems and educational standards such as the European Quality Assurance Reference Framework for Vocational Education and Training (EQARF). Three of the ten quality indicators defined by EQARF are clearly focusing on result measurement at the outcome level. They do this by measuring completion and placement rates of TVET programmes as well as the utilization of acquired skills at the workplace.

Eventually, any TEVT programme must be linked closely to the labour markets and the demand for skilled labour expressed by the employers. This outcome orientation implies that result measurement circles mainly around the improved matching of labour force demand and supply.

Countries like Nepal face multiple challenges in matching demand and supply as the user side of the output of the education and training system (i.e. employers) is largely ignorant about what happens in the system and vice versa. Furthermore, due to the poorly developed quality frameworks, identical training programmes often result in different outputs in terms of competences of the graduates (Dahal, 2010).

Hence, with the TEVT system as one main supplier of workforce, the question arises how vocational education and skills training can be made more labour market oriented in order to achieve better results. Experiences from various countries show that this can be achieved at various stages of the training process:

- Before training by empowering potential trainees to make informed decisions (e.g. mentorship/ counseling, job information centres, etc.) and by ensuring that training content, mode of delivery and outputs are relevant for the labour market (e.g. through Rapid Market Appraisals, labour market studies, DACUM/ Participatory Curriculum Development approach, dialogues with employers to define needs/ expected outcomes of training, etc.)
- During training by exposing the trainees to the realities of the labour market (e.g. dual system, internships, on-the-job training, instructors from the industry, etc.)



- After training by supporting the placement of graduates into gainful employment in the labour market (counseling& placement support, business follow-up, linkage to financial services, etc.)

The measures listed above are certainly relevant and effective to achieve the intended outputs of TEVT programmes. However, the attribution of these interventions to the outcome of improved employability needs to be proven through the use of appropriate tools and methodologies.

### **Result chain methodology in private sector development**

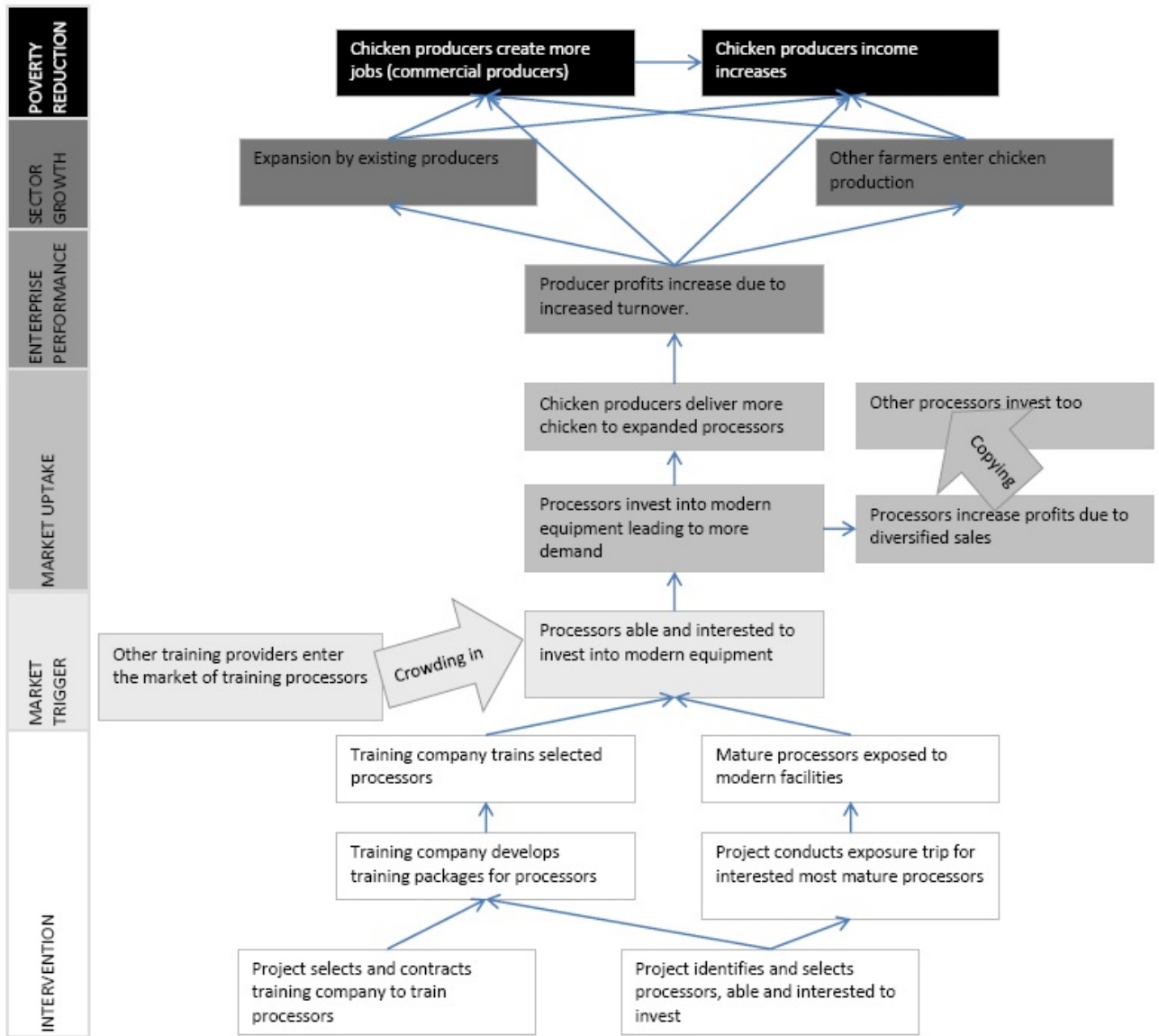
The success of TEVT programmes is closely linked to the development of the private sector as the latter is usually the main job creator in a national economy. This close linkage entails that many outcome and impact indicators of TEVT and private sector development programmes resemble each another (such as 'income', for instance) and thus the challenges of measuring results are similar.

In the field of private sector development, the Donor Committee for Enterprise Development (DCED) took the lead in developing a standard for measuring achievements. This aims at making it easier for programmes to measure, report and validate their results in a credible and useful way. In order to allow aggregation of the impact across programmes, the DCED standard defines three universal impact indicators (scale, net income, net additional jobs created) which are recommended to be used by all participating programmes (DCED, 2010a).

As a basis for result measurement, the DCED standard proposes the use of the

'result chains' tool (sometimes also referred to as *impact model* or *impact logic*). The concept of result chains is based on the identification of the key activities and interventions of a project which are then put into a causal logic with regards to the generated outputs, use of these outputs, expected outcomes and impact. This tool can be used to plan, monitor and analyze programmes but also to attribute changes that took place due to the interventions.

Diagram 1: Example of a result chain from a private sector development programme.



Adapted from Posthumus (2011)

Although the result chain tool may at the first glance seem to be similar to the logical framework approach, the latter usually lacks sufficient detail for managing an intervention. Furthermore the result chain tool clearly sequences the activities and thus allows those involved in designing or monitoring a programme to check whether the expected outcomes are actually taking place according to a causal logic (DCED, 2010b).

A key element of applying the result chain tool in private sector development programmes is that systemic changes are expected to take place through so called *copying* (i.e. enterprises at the target level copy

behaviours from enterprises influenced by the service providers through which the programme works) and *crowding in* (i.e. enterprises at levels other than the target level copying behaviours from those influenced by the programme) (Post humus, 2011). According to the result chain logic, it is expected that this behaviour will eventually lead to emerging and growing markets which are beyond the direct sphere of influence of a private sector development project and thus create a much wider impact.

### **Attribution – estimating the contribution of a TEVT programme to change**

The result chain is a simple yet powerful tool to

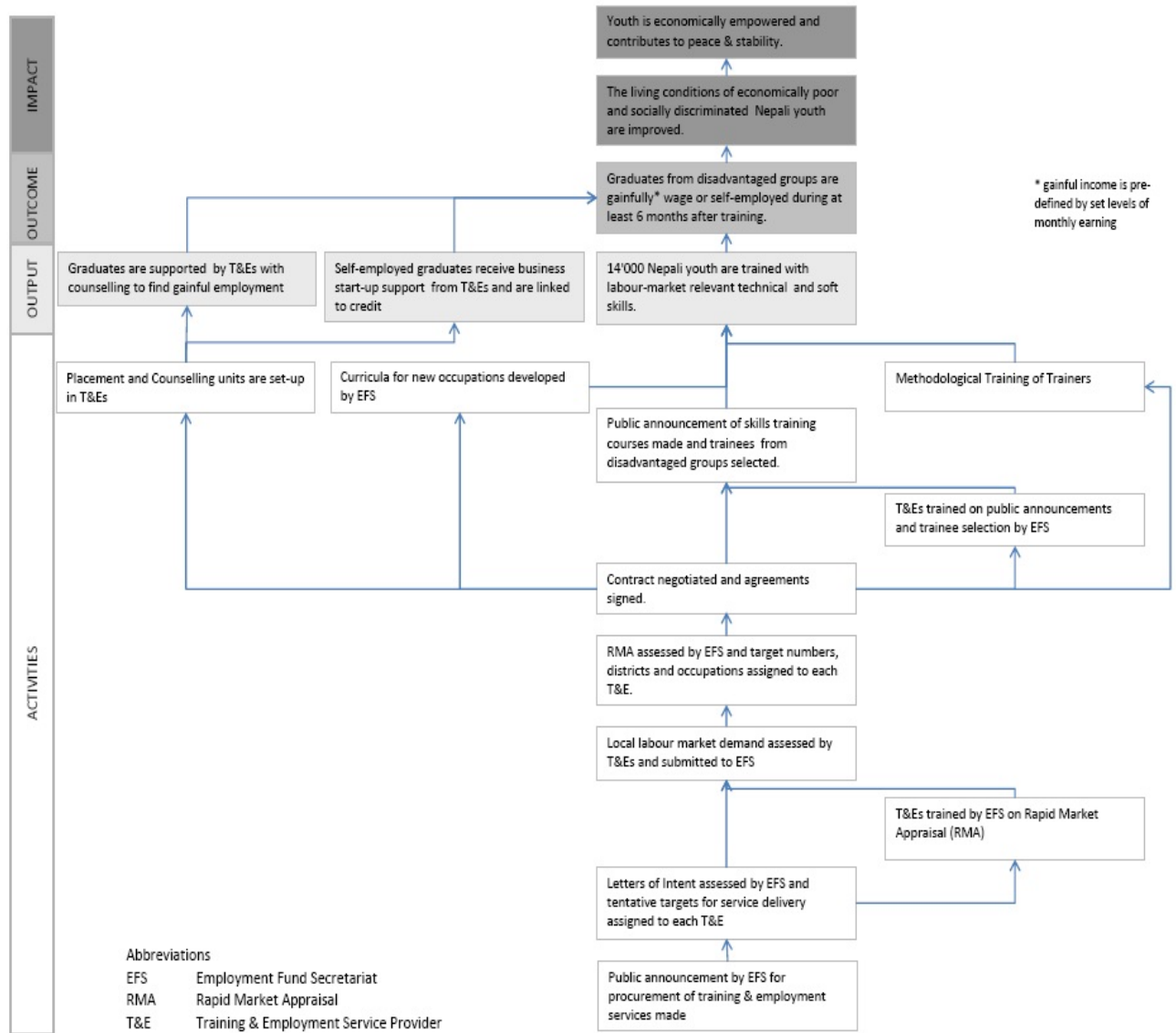
- ‘think through’ the intervention process, clarify assumptions and agree on the intervention logic altogether, and
- monitor progress in achieving that logic (i.e. are the anticipated changes actually happening) (DCED, 2010a)

Be it in the planning, implementation or evaluation stage of a programme, a key question of interest is always on how far the outcomes and impact can be attributed to the activities and outputs. Kohlheyer (2011) emphasizes that this so-called attribution gap is in TEVT programmes defined by which competences matter for the employers. In order to successfully insert a training graduate into the labour market, TEVT programmes actually need to identify which combination of the following competencies of a graduate will lead to better employability:

- Occupational competence (skills and knowledge);
- Occupational meta-skills (problem solving, team work, communication, information);
- Entrepreneurial competence (management & business skills);
- Basic skills (literacy, numeracy, foreign language);
- Personal traits (self-confidence, work ethics & attitude, compassion, dealing with conflict).

For instance in below example from Nepal, the result chain shows that a particular programme’s intended outcome of gainful employment for its graduates of can actually be attributed to its outputs and activities which focus on enhancing a combination of above graduates’ competencies.

**Diagram 2: Example of the result chain for the training & employment intervention of the Employment Fund Nepal.**



The result chain tool can be used to estimate the contribution of a TEVT programme to higher level changes by asking to what extent a certain change contributed to the change one level higher. If the connection between two chain elements at a certain level is no longer given, the chain reaction cannot take place and the attribution to higher level changes cannot be made. For instance if, in the example given in Diagram 2, the programme fails to establish the Placement and Counseling Units (activity), then the graduates will not receive adequate support to find wage employment or successfully start their business (output). This will

seriously question whether the programme can achieve the intended outcome of ensuring the graduates gainful employment after the training.

Beyond the formulation of a result chain, it is important to also clearly define the underlying assumptions of the impact logic and to develop a result measurement plan. Only this will allow programme planners and managers to become aware about risks and potentially wrong assumptions which may threaten the implementation and its outcomes. At the higher levels of the result chain a programme may still contribute to a certain intermediate outcome or impact but the logic of attribution will be depending largely on the careful and honest definition of the assumptions.

In the case of TEVT programmes, it would be interesting to further explore whether and when *crowding in* or *copying* similar to the private sector development interventions takes place. In above example of the Employment Fund Nepal, to a certain extent signs of *crowding in* can be observed as other T&Es not participating in the programme are selling similar skill training courses and employment services to non-poor and non-discriminated youth who are not eligible to participate in the donor-financed programme. However, this also shows that the application of the result chain tool and its concepts, such as the *crowding in* and *copying*, still need to be adapted to the typical implementation modalities of TEVT programmes.

### **Universal indicators**

One objective of improved result measurement of TEVT programmes is to better understand the outcomes and impact of the wide variety of approaches and methods being used by stakeholders such as the Government, donors, the private sector and non-governmental organisations. One way to compare TEVT interventions and aggregate their impact across programmes, of countries or even regions would be, to define and agree among the sector stakeholders a set of universal indicators. This would allow validating the outcomes of different TEVT programmes and could thus contribute to their credibility as well as yield key information for informed policy and programme planning decisions.

A starting point for defining universal indicators is to look at outcome indicators which are currently being used by TEVT programmes, such as:

- Outreach;
- Employment;
- Income;
- Satisfaction of graduates or employers.

Outreach in terms of number of people that are trained by a certain TEVT programme can easily be measured at the output level and allows a certain quantification of the impact. Measuring the employment status enables identification of changes in the economic and social conditions of the graduates but requires baseline information and specific delimitations of what is understood by un- or underemployment. This is important because often youth entering a TEVT programme are already economically active. Furthermore, issues of social and gender inequalities as well as decent, equitable work need to be considered.

Although income is probably one of the strongest outcome indicators for a TEVT programme, its measurement is often hampered by insufficient baseline data, difficult quantification of in-kind income, family instead of individual income statements, reluctance to disclose incomes as well as limited comparability of the purchasing power across countries. For instance, for the result measurement of its TEVT interventions, the German Technical Cooperation (GIZ) uses the indicators of outreach (to trainees, teachers or institutions), labour market insertion (employment rate) and systemic effects; income measurement is considered to be too challenging to be measured.

Many programmes measure the satisfaction of graduates of skills training or vocational education, although its attribution to an economic or social impact at the household level is difficult to establish. Measuring the satisfaction of employers can be a good proxy indicator for the quality of training as the skills acquired by the graduates are put into relation to their relevance for the labour market.

Furthermore, one may also argue that TEVT programmes often go beyond just imparting skills for gainful employment of a certain target group. In the case of life-long learning as well as for longer term vocational education programmes, aspects of building responsible, self-reliant citizens who are accountable for their actions may be just as important. In addition to that, many TEVT programmes are striving for a sustainable systemic impact at the macro level.

In TEVT programmes, the issue of result measurement is often related to the question of which result is considered as a success (Kohlheyer, 2011). The graduates of a training intervention have diverse pathways they can follow; be it immediate entrance into employment, continuing with education, or even remaining inactive. As Dahal (2010) points out, success indicators need to be defined for each element of the TEVT system. Hence, the challenge remains to define universal indicators which take the wide variety of TEVT programmes and their intended outcomes adequately into account. Furthermore, appropriate and efficient ways of collecting, processing and communicating the respective data still need to be developed. In addition to that, intensive discussions are still needed in order to identify and make explicit the assumptions that would underlie such a specific set of indicators. Last but not least, for comprehensive result measurement the definition of mainly quantitative universal indicators will hardly be sufficient without combining them with qualitative assessments of TEVT programmes.

## **Conclusion**

Result measurement has been a central topic for TEVT programmes over many years. Nevertheless, the recently increasing pressure of parliaments and taxpayers to report on results attributable to the spending of public funds asks for practical tools and methodologies which are capable of producing reliable information on outcomes, impacts and attribution without being themselves a major drain on limited resources. As the example of the private sector development programmes shows, such tools are already in development and successfully used in some countries. While a one-to-one transfer of a tool from one development area to another is not advisable, TEVT programme planners, managers and evaluators are encouraged to look beyond their sector in order to seek and identify appropriate methodologies which will yield the data and information which is accurate enough for reporting results in ways that satisfy the public. Through combining tools which are new for TEVT programmes with other emerging approaches (for instance outcome mapping) the result measurement can potentially be further enhanced. Regardless of which tools and approaches are applied, what would be most needed is an honest and transparent dialogue among TEVT stakeholders about accountability and result measurement which would convey the message to the wider public that innovative but also realistic ways to assess outcomes, impact and attribution are currently being developed but cannot be delivered as blueprints.

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## Issues of Monitoring, Supervision and Evaluation in the Context of TVET Nepal

Wakil Jha<sup>1</sup>

### Abstract

*Monitoring, supervision and evaluation is an emerging activity, trying to establish as an independent and the most important part of an organization in Nepal. Both governmental and non-governmental organizations in Nepal are seeking the importance of monitoring, supervision and evaluation for getting opportunities for keeping the program on track, getting timely correction by immediate feedback as well as assessing the efficiency, effectiveness, relevancy, impact and sustainability of running programs. Political, bureaucratic, economic, environmental even civil societies are anxious to establish effective M/S/E system in Nepal. By facing different obstacles in its very slowly growing infancy stage, M/S/E is itself a burning issue in Nepal.*

*The quality and characteristics of team of experts, quality of tool used for M/S/E and process of M/S/E has an important role in quality M/S/E. Experiences of technical experts involved in M/S/E including the writer's experience of latest M/S/E visits of more than 50 TVET institutes of the nation as a senior supervision and monitoring officer of CTVET, the tool used for M/S/E and review of related literatures are the sources of information for writing this article. In this way sharing of the experiences of the experts and critical analysis of tool are used as the method of information gathering and writing this article.*

*In this article the writer is trying to elaborate the issues, whether the adopted system of M/S/E by CTVET is successful to find out the real strength and weaknesses of the institute, identifies potential problems of the institute, accessible for the all sector of target population, monitors the efficiency, evaluates the extent to achieve its general objectives of delivery of quality of education and provides constant feedback and guidelines for the improvement of teaching/ learning activities.*

### Background

The Council for Technical Education and Vocational Training (CTVET) is a national autonomous body committed to the growth and development of basic and middle level technical and vocational human resources for the kingdom of Nepal. In this context, Ministry of Education (2007) mentions that, currently, the technical schools affiliated to CTVET offer skill training courses either to tenth grade pass students or to those having Technical School Leaving Certificate (p.25). These technical and vocational institutes are scattered in different parts of the nation. About 387 technical and vocational institutes are running under CTVET (CTVET, 2010). Providing quality TVET and producing skilled technical and vocational workforce is the most challenging job for CTVET in the present context of competitive national and international job market.

M/S/E is the most important and regular function of the Technical Division of CTVET for the improvement of the quality of TVET. As mentioned in UNDP (2009), without effective Monitoring, Supervision and Evaluation (M/S/E), it would be impossible to judge, if work is going in the right direction, whether progress and success can be claimed, and how future efforts might be improved. Still there is a question regarding the quality of the training provided by these technical institutes. As Nick Simon Institute (2006) mentions that, although the production of human resources increases each year, the quality of the mid-level training programs, and the knowledge and practical skills of the health workers, have increasingly become a matter of concern. This study has encountered the widely-held opinion that CTVET's health training programs are sub-optimal (p.4). In the similar context, Nick Simon Institute (2006) further mentions that, there is wide variation in almost all

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parameters - infrastructure, teaching methods, and clinical exposure – suggesting a lack of central control of standards (p.3).

The quality of M/S/E is always dependent of the quality of the experts deputed for M/S/E, quality of tools used for M/S/E activities, quality of process of M/S/E, quality of feedback provided to the institute and quality of CTVET management for compelling the institutes for getting timely correction. Here, in this article the writer is trying to elaborate the issue, whether the existing system of M/S/E is appropriate to guide, to track and to evaluate the TVET institute.

### **Theoretical Base of M/S/E**

Monitoring is continuous and periodic collection and analysis of information of implemented activities to find out whether the activities are on track? The main purpose of monitoring is to get timely correction and keep the program on track. In this context UNDP (2009) mentions, monitoring is a continuing function that aims primarily to provide program management and the main stakeholders of an ongoing program with early indications of progress or shortcomings in the achievement of program or project objectives.

Monitoring can be defined as the ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. As CIVICUS (2001) mentions that, Monitoring is the systematic collection and analysis of information as a project progresses (p.3). Monitoring is to keep track of and to check all the activities of the program systematically. In other words, monitoring is not only concerned with asking “Are we taking the actions we said we would take?” but also “Are we making progress on achieving the results that we said we wanted to achieve?” The difference between these two approaches is extremely important.

Supervision is often considered as a management activity, and the lines between supervision and management are frequently blurred. In this context, CSP, RCSLT, BDA and the RCN, (January, 2006) writes, supervision may incorporate elements of direction, guidance, observation, joint working, discussion, exchange of ideas and co-ordination of activities (p.17).

The traditional concept of supervision and inspection was authoritarian and rigid and did not include the element of professional guidance to teachers. The modern concept of supervision and inspection is more scientific, professional and democratic in character and methods. As Acharya (2006) states that the term supervision, accordingly, implies professional leadership by the head of the institution and senior teachers of the school in addition to similar guidance from outside supervisors.

An evaluation studies the outcome of a project with the aim of informing the design of future projects. As CIVICUS (2001) states that, Evaluation is the comparison of actual project impacts against the agreed strategic plans (p.3). It helps the policy maker, decision maker and planner to learn lesson and get modification in future project. In similar context UNDP (2009) mentions that, evaluation is a time-bound exercise that attempts to assess systematically and objectively the relevance, performance and success of ongoing and completed programs.

Evaluation is a rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated objectives and contributing to decision making. In this context, The INFO Project (March, 2007) writes, program evaluation generally involves more rigorous research methods than does monitoring. Evaluations, like monitoring, can apply to many things, including an activity, project, program, strategy, policy, topic, theme, sector or organization. The key distinction between the two is that evaluations are done independently to provide managers and staff with an objective assessment of whether or not they are on track. However, the aims of both monitoring and evaluation are very similar: to provide information that can help inform decisions, improve performance and achieve planned results.

In other way, while planning for M/S/E, the first question arises, why to M/S/E? Either it is for accountability or for lesson learning. According to accountability objective of M/S/E, the main purpose of M/S/E is to answer such question as, does program work? How effective is program? According to lesson- learning objective, the key objective is to study selected successes and failure with a view to learning like, why some actions were successful and others not? And to ensure that the relevant lessons are learned and acted upon.

### **M/S/E System of CTEVT in Nepal**

Skilled workforce preparation is key responsibility of CTVEVT. Among 10 divisions of the CTVEVT, the technical division is exclusively responsible for coordinating and conducting over all M/S/E activities for TVET institutes. It has been developed a systemic mechanism with co-ordination of other divisions of CTEVT for the purpose of M/S/E of TVET institutes since last few years.

Technical Division coordinates with other divisions of CTVEVT for hiring experts and getting team formation as M/S/E team. Different teams visit all the institutes of CTEVT to the extent of the functions assigned to a particular team. These teams conduct the M/S/E activities and submit report with recommendations to the technical division of CTEVT. Supervision and monitoring unit compiles those reports and prepare a single report and disseminate to a formally organized meeting of directors of CTEVT. Still, the question of complain is coming from different sources about the quality of the graduates from CTVEVT affiliated TVET institutes.

### **Issues in Monitoring and Evaluation**

CPSC (31 May - 11 June, 2009) writes, Monitoring and evaluation is the key to an effective measurement of the entire system and an indispensable tool of ensuring quality improvement. With the appropriate indicators, tools and processes, M & E establishes performance standards that would be used to track past performances and forecast future outcomes. A number of key issues frequently emerge in the practice of monitoring and evaluation. Some of those background issues are.

- Whether M&E identify potential problems at an early stage and propose possible solutions?
- Whether M&E monitor the accessibility of the program to all sector of target population?
- Whether M&E monitor the efficiency
- Whether M&E evaluate the extent to which the program is able to achieve its general objectives?
- Whether M&E provide guidelines for the improvement of the program?
- Whether monitoring provides constant feedback on the extent to which the programs are achieving their goal?
- Whether M&E improve program design?
- Whether M&E incorporate views of stakeholders?
- Whether M&E show need for mid-course corrections?

### **Existing Practices of M/S/E in CTEVT**

There are about 387 TVET institutes running under CTVEVT. Supervision and monitoring unit of technical division of CTEVT forms different teams of technical experts of different discipline as M/S/E team and prepare schedule for visiting the TVET institutes. Required papers, letters, formats and tools are prepared, packed and handed over to the team. Generally, visits start from December and end in March and the month April is the month for reporting. One group must have to visit two institutes in a day. There may be one or many programs of same or different levels and different disciplines in one institute. The following documents are provided to each team before going to visit.

- A request letter to the school for helping the team
- 7 pages long format to collect basic information related to the institute and running programs.
- 11 pages long check list organized in eight standards to rate the different items to be supervised.
- 1 page format to record the findings of general observations, strength, weaknesses and recommendations to the institute.
- 1 page format for giving feed-back to the institute.
- 1 letter of request for the completion of feed-back or request for revisit if the institute does not acquire adequate level of grading.
- Separate format to get students and teachers opinions.
- A copy of minimum requirement for related program.

### **Process of M/S/E of TVET in Nepal**

At the scheduled date, the deputed team visits the institute. At first gets contact to the principal or the chief of the institute; give him/her the letter given by technical division of CTEVT for helping the team in S/M/E activities. Team elaborates the objective of visit and the process to be applied for M/S/E, approximate time to be taken to complete the visit and required institute authorities to be involved in M/S/E. The team follows four steps in S/M/E of TVET institutes.

In the first step, the team organizes a formal meeting with management committee members and responsible teaching and administrative staff like principal, vice-principal, and coordinator/s and admin/account officer. After exchanging formal introduction, the team leader elaborates the objectives of visit, possible duration of time to complete the visit, the process and the methods to be applied in M/S/E. The team also requests them to work with them as team members and play the roles of both team member as well as responsible person of the institute.

In the second step the whole group visit and observe the all physical facilities comparing with the minimum requirements for the program/s. During observation they also discuss about the adequacy and appropriateness of physical facilities like lighting, ventilation, size, seating arrangement and multimedia in the class rooms, number of theory and practical class rooms, equipments, materials, tools and reagents in the practical, demonstration rooms and workshops based on preset minimum requirements for running various programs. They also observe the condition of library, toilet and drinking water facilities, surrounding environment, hostel, cafeteria and sport and entertainment facilities. They also observe the displayed graphical presentations of organizational chart, student's achievements, some of information related to students and different rules and regulation to be followed by the students. During observation they also visit the teaching staff rooms and observe the file records of job description, performance based evaluation system, teaching/ learning planning and recording like log book, annual teaching plan, daily lesson plan, evaluation checklists and records of student's evaluation. Similarly they also visit the admin and account section and observe record keeping activities, registrations and renewal records, inventory and tax clearance records. During observation, they also talk to the teaching and admin staff about their qualification, training experience, job satisfaction, motivation, work load, authority delegation and the provision of their performance based evaluation system and career development opportunities.

The team inters into the classes of students and interacts with students. They elaborate the objectives of their visit and ask some questions from the students like, orientation class, regularity of classes, simultaneously conduction of classes of theory and practical of all subjects, examination system, adequacy of equipments and materials in the practical, demonstration rooms and work-shops, accessibility of books and

related journals in the library, practical activities outside the institute, conduction of extracurricular activities and overall satisfaction rate of students from teaching and learning activities in that very institute.

At the last step of M/S/E activity, again the team with the responsible authorities of the institute sits together and discusses about the findings of observation and the responses of staff and students and gives grades based on the standard of performance summary sheets by reading each point one by one. The team writes down the feed-back on feed-back format. All the team members and principal of the institute put their signatures on the feed-back. The original copy of feed-back is provided to the school with one request letter to follow the feed-back within one month and also request them to inform the technical division of CTVET after the completion of feed-back. But if the institute does not get adequate level of marking gets the letter to complete the feed-back and after completion send request letter to CTVET for revisit. Before, revisit that institute must have to submit certain amount of money as fine. If the institute does not get revisited, the vacancy for new admission for next session will not be announced for that institute and in revisit if that institute is unsuccessful to complete the feed-back will be suspended for one academic session.

M/S/E activity of CTEVT focuses to update the institute not the programs running in the institute. One institute runs one or more programs. Running programs may be from different levels, different disciplines and from different faculties of different disciplines. The same team conducts M/S/E of all programs running in the institute. The team gets only three hours to M/S/E of one or more programs running in one institute. M/S/E of two or more than two programs in one institute within three hours is really challenging. As mentioned in The INFO Project (March, 2007), program monitoring collects data at a number of points during program implementation to ensure that the program is running smoothly and achieving its objectives according to plan. In this way, the team conducts M/S/E of over all activities of the institute not the separate programs running in the institute. May the performance of one program is not good but that institute can get adequate level of grading if the other program is running in good condition.

#### **Characteristics of M/S/E team of CTEVT**

M/S/E/ team is a group of at least three experts of different discipline, generally one from health, one from agriculture and one from engineering background. Members should be of at least officer grade but not necessarily completed the bachelor degree in same discipline. One expert of one discipline is an expert of all the faculties of that discipline e.g. one health expert is expert for all the health related faculties like general medicine, laboratory technology, pharmacy, radiography, nursing, eye, dental and others. One expert of M/S/E team (2011) states that, they do not get any orientation either about the tool or about the process of conduction of M/S/E activities before going to visit. There are many teams deputed for M/S/E of different TVET institutes but due to lack of uniform guidance to all the teams, consistency in giving grade as evaluation and providing feedback and guidance for correction and improvement is lacking. There are also differences in academic and experiential backgrounds of team members. They stay in one institute for not more than three hours, May that institute runs one or more than one programs and the running programs may be from the same or different disciplines.

#### **Characteristics of Tool of M/S/E of CTEVT**

The tool or the check list used for M/S/E of TVET institute by CTVET is entitled as “Supervision for Technical School/College/institutes”. It is an 18 pages long format, started with overall objective and various specific objectives of supervision. It is divided into two parts. The first part of the tool collects the information related to the administrative aspects of the institute; generally collect the recorded information of the institute like, contact address of the institute, date of affiliation, registration records, year of instruction started, and date of renewal and records of agreement with different user agencies. Similarly it also keeps the information related to the status of institute building, types of institute and the persons to be interviewed. Program details, enrollment records, student’s records, examination records, financial records (containing main source of

funding, total cost per student, school property and tax clearance) and the records of existing teaching and administrative staff are mentioned in this part of the tool.

The other part of format deals with the technical aspects and it is a real check list. It has been divided into eight standards. Each standard contains many items to be supervised and each item has five levels of rating scale (from 1-5). Whole total, there are about 87 items to be supervised. But the rating scale from 1-5 level is not defined anywhere. Without the clear definition of each level of each item, getting consistency in rating by all teams is very hard. The other drawback of this check list does not compel the institute to get adequate level performance in each standard of check list. Inadequate level of grading in one standard may be adequate by getting higher grades in another standard. Although the tool covers each and every corners of quality teaching and learning of TVET but these two draw backs of the tool make it deficient in quality M/S/E.

### **Conclusion and Recommendations**

M/S/E is an important and established activity of CTVET for keeping the TVET programs on track based objectives of that program. It provides the feedback and guidelines to the TVET institutes for the production of skilled and quality technical and vocational workforce. The objectives, goals and the process of M/S/E are really appreciating, although it needs to be revised and updated on spatial and temporal basis. It also evaluates the activities and items of the TVET institutes and gives a certain level of grade to that institute. It compels the TVET institute for midcourse correction.

Only one time visit to an institute in a year for M/S/E is not sufficient to guide the TVET institutes in proper way. The time allotted for M/S/E is not sufficient for the conduction of quality M/S/E activity. The experts of the team should be the expert of related discipline and also by academic degree not only by the post hold in the CTVET. Training about M/S/E for the team members enhances the expertise of the experts. Orientation about the tool and process of M/S/E before going to visit the institute helps to maintain consistency in giving grade to the institute and providing feedback and guidelines to the institute for making corrections and enhancing the quality of TVET.

Tool for M/S/E plays an important role for the conduction of quality M/S/E. Tool should be revised and modified each time before starting M/S/E activities with the help of a team of experts. Each and every item of tool and levels of grading scale should be clearly defined.

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## Application of GIS in TEVT Planning and Development

Gehendra Karki<sup>1</sup>

### Abstract

*There involves a multi-criteria analysis for TEVT development and planning that consists a set of selection of different variables of bio-physical, demographic, socio-economical and infrastructure/facilities. Based on this analysis, planners and decision makers can obtain essential information for understanding TEVT context and further they will be able to take appropriate decision for increasing the accessibility of TEVT programs to the different target group of people. For this purpose, application of geography information system (GIS) is a holistic approach for processing and extracting the different layer of data and finding detail information of potential trainees, beneficiaries groups, status and impacts of TEVT projects in geographical dimension by displaying on various thematic maps, tables and graphs.*

### Introduction

The interim constitution of Nepal (2006) has ensured the right of equal opportunity to quality education. Also a series of previous periodic plans have been constantly advocating the need of skills, knowledge and attitudes to the youth of this nation through offering appropriate technical education and vocational training (TEVT) program. In this line, the National TEVT Framework (2007) has also envisaged a vision- 2020 "We believe no Nepali should be unemployed due to lack of access to TEVT programs". At this background, the present capacity of polytechnics, training institutions and annex schools- which are mostly operated at urban based location, are not distributed equitably in order to reach TEVT programs at grass root level covering the vast majority of rural people. To extend TEVT programs across the country, there needs a comprehensive and in-depth planning to deliver appropriate TEVT programs in such a manner so that potential people of all level at the rural places can easily access technical and vocational education and training of their interest.

In this area, Council for Technical Education and Vocational Training (CTEVT), a sole responsible apex organization in TEVT sector, has now established a well function GIS unit to support in the TEVT development and planning process. This unit is capable of analyzing bio-physical, socio-economical and existing infrastructure/facilities in spatial background so as to understand the potential target groups and to measure the possible impacts of the TEVT future project in different specific location. The detail information obtained from this level of analysis will support to generate some views about how and where to extend TEVT programs across the country. Further, planners and decision makers can make appropriate decision in order to select the potential location and appropriate TEVT programs for the target people.

### Rational of establishing an information Workflow in GIS for TEVT system

Almost all development interventions are associated with spatial component. At this ground, there is a rational to establish a central database system which maintains geographically based information in GIS platform. The centralized and compatible database system of GIS platform shares the geographically referenced information which is useful for quicker adaptation for decision making process in TEVT development and planning too. A Geographical Information System (GIS) is a computer program which combines spatial and non-spatial databases. The spatial database holds the geographic data such as location of training facilities, boundaries of districts, location of village, roads and other relevant geographic characteristics where as the non-spatial data holds attribute data relating to TEVT such as the characteristics of technical education providers, trainers and focus group population. GIS is capable of linking these two sets

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of data and perform a statistical analysis to display spatial pattern, status, impacts and relationship in the form of different thematic maps, tables and graphs.

### **Application of GIS in Monitoring and Evaluation**

TEVT project has a huge number of tasks and the economic cost involved is also very large. The manager of a project may have very hard time in monitoring and evaluating the status of the project between site and office. For this, manager has to come on the project site to understand the situation and progress in reality. Unless and until the manager has not aware of all aspect of the project, it would be a complicated and tedious job to make any proper decision for what to do next and also to understand what would be the scenario that may come in future. In many instances, project uses traditional approach of scheduling and control monitoring and evaluation techniques such as bar charts and critical path in order to understand the project impact, but that does not provide complete information because it has excluded the spatial aspects of the context. For doing effective monitoring and evaluation of a project, GIS is a sophisticated application that provides a visual representation of the project's status/impacts/progress over space and time including several other characteristics that are directly or indirectly associated to the spatial component of the project. It can also be used to analyze the success rate of the project and then display on the map in order to examine how the objectives are being achieved in different intervals of time. Not only GIS is applicable for both carrying out the baseline study and getting to know the status of the completed, ongoing and projected development interventions. But also GIS is useful to incorporate the knowledge and views of the local participants and analyze the constraints and opportunities with reference to the specific locations of the project.

Specially, GIS can be applied for the following four types of analysis at different level of the monitoring and evaluation process.

#### Status analysis

This type of analysis is intended to provide the overview of the existing results of each time a study is conducted. It can also be used in the baseline survey where it gives the starting value of the measurable indicators in order to understand the existing situation of the project area.

#### Comparison Analysis:

These maps are devised to provide comparisons between two similar entities. The user can compare year to year, or two locations or two categories from the same analysis group for example enrollment status in education in different year or place.

#### Ranking analysis:

It is used to assess performance and progress by ranking entities of the same class group. *Rank* shows relative value rather than measured value. Rank can be expressed either as text (very satisfied, satisfied, neutral, and dissatisfied or numbers (one through four). For example, survey data can be mapped to examine the level of satisfaction of beneficiaries.

#### Trend analysis

If data for the same indicators are routinely collected over a long period of time, trends can be observed to understand the patterns and relationship among different types of TEVT variables.

### **GIS in TEVT planning**

GIS analyzes TEVT programs through holistic approach. In which, all influencing aspects of TEVT such as demographic, socio-economic and accessibility characteristics with respect to geographical location are undertaken to analyze the TEVT programs. It can reveal a real scenario while considering the needs of people at different parts of the country. Based on this, TEVT programs can be further planned by knowing the types



of relationship between the specific location and TEVT programs. For instance, why people belonging to a specific location is more interested to enroll in specific trades, who would be the potential focus group for the TEVT programs, what type of relationship exists between enrollment and physical accessibility, what is the gross enrollment ratio of studying TEVT by location, what are the local resources of a particular location and how it can be linked with the TEVT program, are some of the crucial information that needs to be well understood prior to any TEVT planning and development for central level planner, policy and decision-makers.

The application of GIS can be useful for the following areas.

### **GIS for research and study**

Using indicators for measuring the impact of any development intervention in spatial context, the result-based GIS information systems can be applied to examine the improvement of the social, economic and environmental situation of the people by displaying the findings of the grass-root level information of baseline study, feasibility study and tracer study for a specific place.

### **Accessibility analysis for Annex Program**

The national TEVT policy has recommended that TEVT service will be extended through annex program for accessibility of rural community people in TEVT programs. For this, GIS can be applied for mapping the appropriate schools which are capable for operating TEVT programs using their own technical and physical resources and expertise.

### **Analysis for Social inclusion in TEVT sector**

One of the emerging issues of today is the inclusion of socially excluded people, who are marginalized due to their gender, caste, or ethnicity, In this task, GIS can be applied to locate priority of target groups at grass-root level where high population density of such people inhabit. Based on this information, we can implement appropriate TEVT programs for equitable access to training services, post-training support services and available microfinance options.

### **Analysis for student by gender wise status**

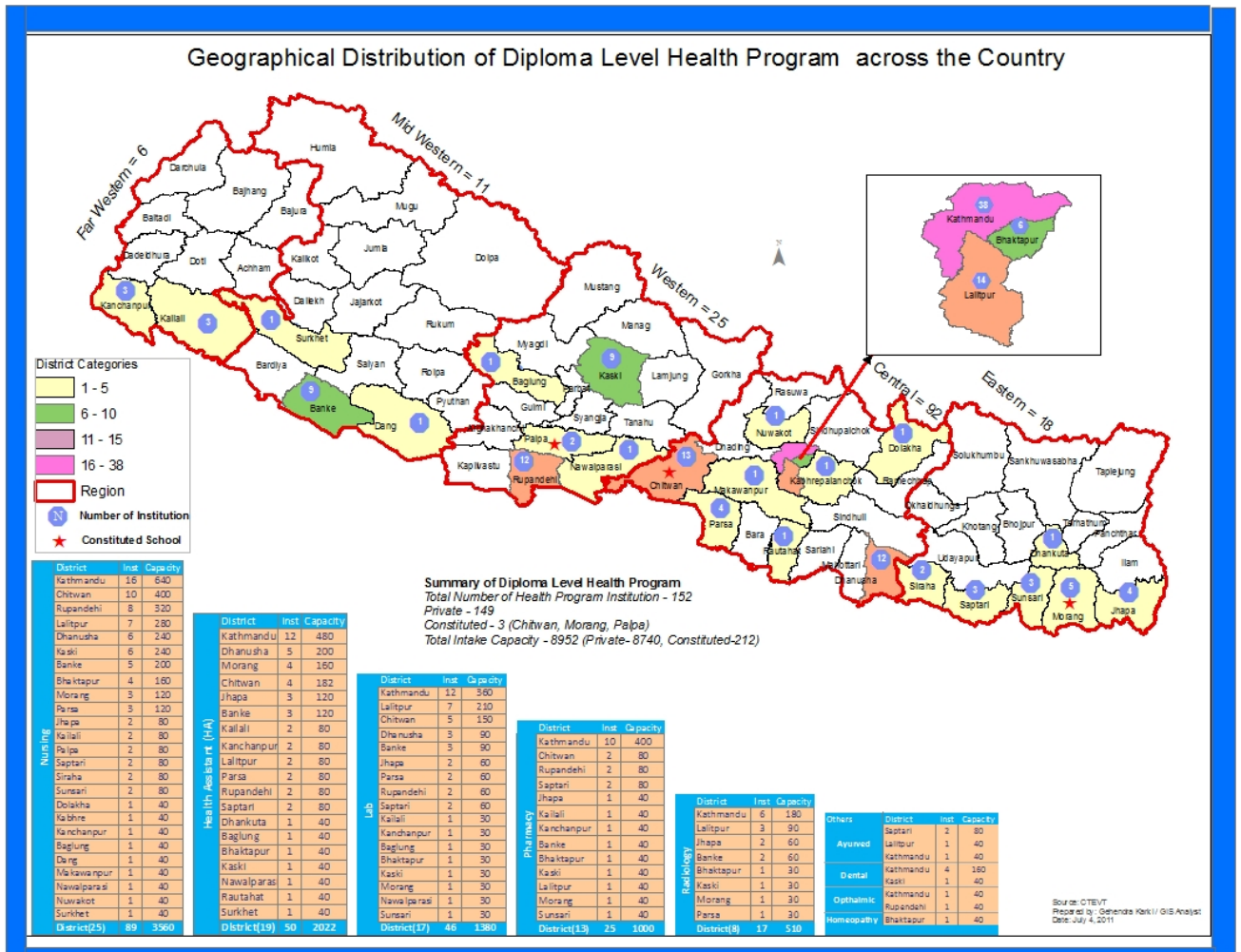
Finding gender disparities of students in TEVT program can be other interesting area where GIS can be helpful to understand the causes of gender attraction from different parts of the geographical regions. It can also be used for analyzing the enrolment ratio of girls/boys from TEVT centers and training programs.

### **Analyzing catchment area for TEVT**

The accessibility, enrolment rates and effectiveness of program around the catchment areas of a new TEVT program can be obtained by analyzing the feeder schools, road accessibility, age group, and socio-economic characteristics. It will be helpful to predict the potential trainees for the TEVT programs.

The map below is an illustration of how Geographic Information System can be useful to extract information for the evaluation of the existing relationship between location and TEVT programs. It showed the existing scenario of diploma level health programs of CTEVT across the country. In this map there is a clear indication of inequitable geographical distribution of institution in health program, almost all of the hilly and mountain districts are excluded where as it is mostly concentrated only in the Kathmandu valley. With this map, planners and decision makers can generate certain ideas to make their conclusion about where and why the new health programs is necessary by taking the reference of geographical location, target groups and socio-economic background of particular location. Other perspective of the map is that it can be used in CTEVT controller's office of examination for the purpose of examination planning such as determining the examination centers, calculating the number of the questions that needs for different location of the examination center and planning the required number of human resources that is needed for carrying out the

examination in different locations. In the same way we can evaluate the health programs running institutions based on the examination performance.



Source: Research and Information Division, CTEVT, 2011

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## Access of Persons with Disabilities in Labor Market

Manish Prasai<sup>1</sup>

### Abstract

*By a traditional view, persons with disabilities (PWDs) are tagged as 'unable' or 'disable' and considered as a subject to charity. Due to this reason they are often excluded from employment sectors or labor market. Only the bodily impairment is considered as the yard stick to measure their entire potentials and capacities, which is totally wrong and injustice. In fact, there are many other reasons which have forced PWDs towards exclusion. Basically the ignorance of state to include PWDs in economic activities, stereotype attitudes of employers, lack of need based training package and unfriendly physical infrastructures are the key barriers which is hindering their access to employment opportunities.*

*Government has provided 5% reservation quota to PWDs in government job (Civil Service Act 2049) but there is still lack of strong policies, laws or programs to ensure the access of PWDs in private sectors' labor market. Two years ago government ratified the UN convention on the rights of persons with disabilities (UNCRPD) but the initiations taken to modify the domestic laws in line with this convention are too slow and ineffective.*

*Excluding PWDs from economic activities, state is bearing a big economic loss annually in its GDP and on the other hand it is directly contributing to increase poverty. So it is now essential to make PWDs economically productive and independent considering this issue as a part of poverty reduction strategy.*

*Employing PWDs is not that much complicated as it is exaggerated in market. First of all this issue should be included as a part of national economic development processes and government must take all necessary measures to strengthen the capacity of PWDs, encourage employers for providing job to PWDs, ensure physical accessibility and necessary reasonable accommodation in the work stations and training institutions and provide need based vocational trainings with friendly methodologies.*

### Background

In Nepal, Persons with Disabilities (PWDs) are often excluded from services, facilities, equal opportunities and many other human rights which they are entitled to have as human being from state and their own society. They are suffered by extreme poverty and human rights violation particularly in underdeveloped and developing countries. Poverty is now proved as one of the causes of disability and on the other hand disability and further exclusion is leading people towards poverty. Considering this fact United Nation has been announcing and facilitating frequently to its member states to incorporate disability as cross cutting issues of each Millennium Development Goals (MDG) and develop program accordingly. Being the member state of UN and state party of United Nation's Convention on the Rights of Persons with Disabilities (UNCRPD) Nepal has also obligation to ensure all the rights of persons with disabilities in consistent with the convention.

Nepal government has no any detail data base regarding disability to describe general or individual status of persons with disabilities (PWDs) except some very limited but surface level statistics of sample surveys and national census. Disability rights activists and local NGOs claim a 10% figure of PWDs in the total population

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of Nepal based on the general estimation of W.H.O. Therefore, due to the inadequate data and information the planning and budgeting for disability related programs and delivery of relevant services are like a firing without target. However, Ministry of Women, Children and Social Welfare has taken a good initiation since 2009 to create and manage baseline information system of disability in each district, by providing a uniform data collection form, basic level orientation on household mapping (with a printed guidelines), simple disability data base software and some budget (Rs. 50000/-) to start information collection. This work is being done in the partnership with local DPOs and they are encouraged and facilitated by the Ministry to mobilize other required resources from local government agencies such as Village Development Committees (VDCs) and District Development Committees (DDCs) who are also entitled to keep the record of disabled people at local level according to the Local Self Governance Act 2055. This effort has raised some hopes on fulfilling the gap of data and information in disability sectors (MoWCSW, 2063).

In fact the attitudinal, institutional and human made physical barriers have forced persons with disabilities to stay far behind from opportunities, services and many other equal rights. They are often denied in education and employment in the name of this and that which consequently leading them towards extreme exclusion and poverty but neither the state has paid a serious attention to this important reason of poverty nor have any idea about the annual economic losses caused by not educating and employing persons with disabilities. According to World Bank the total annual value of total global GDP losses in relation to disability is about \$1.94 trillion and developing and underdeveloped countries are bearing the major part of this loss (B. Sebastian, 2009).

Economic empowerment with full enjoyment of economic rights is the key factor to bring expected changes in someone's life. For this he/she needs proper education, demanding skills and access to opportunities. The state is always responsible to provide these three things by laws and action to its people from all level, classes, race, geography and community without any discrimination. Not only this, government should be serious, proactive and attentive on making need based programs, allocating budget and ensuring its effective implementation considering the diverse needs of people of each community and class.

Economic empowerment of persons with disabilities by creating equal accesses in employment sectors or labor market has become a big issue of today. The noble concept of inclusive development has also strongly emphasized on the equal and meaningful participation of people from each class and community in the development process. Five years ago UN passed a separate Convention on the Rights of Persons with Disabilities. This document has described disability not only in rights based perspective but directs member states to ensure a dignified and productive life of PWDs with the full realization of all human rights. Article 27 of this convention has stated "States Parties recognize the right of persons with disabilities to work, on an equal basis with others; this includes the right to the opportunity to gain a living by work freely chosen or accepted in a labor market and work environment that is open, inclusive and accessible to persons with disabilities" (UNCRPD, 2006).

In Nepal there is almost lack of intensive research and study regarding the employment situation of PWDs therefore there is always a big gap of information. Very few studies and limited information can be found to describe the socio economic status of PWDs. National Federation of the Disabled Nepal carried out a sample study (2006-2008) in five districts of Nepal, considering one district from each development region, to assess the involvement of PWDs in government and private sectors' job. The study found only 312 PWDs (1.18%) engaged in some kinds of job out of total 26379 employed persons. The study had covered 1686 institutions/company/govt. offices of five districts and only 261 out of them were found employing PWDs (NFDN, Employment survey, 2008). In 2001, National Planning Commission carried a national sample survey on disability. This survey reported a negligible number (only 27 PWDs over 14 years age group out of 917) of PWDs who had access to some kind of vocational training. It also disclosed a big number of PWDs (80%) who were economically not active i.e. dependent to their family (NPC, 2001).

We have also some policies and legal provisions, although they need to be amended in line with UNCRPD, regarding the employment of PWDs. The disabled welfare and protection act 1982 is an exclusive law regarding disability. Point 8 of this law has provisioned about vocational training, micro credit for small business and accessing PWDs in corporate sectors' employment (DPWA, 2039). The National Policy and Plan of Action on Disability 2006, passed by Ministry of Women Children and Social Welfare, have made a policy to provide 5% quota reservation for PWDs in employment sectors (NPPAD, 2063). Similarly the Civil Service Act has also provided 5% reservation to PWDs in government job.

### **Problems**

Our country always seems ahead for making policy, laws, and rules in any subject and far behind for implementation. Moreover the disability sector is severely victimized of this tendency. Mostly the policies and legal provisions are made without enough homework and consultations with the rights holders and relevant stakeholders which have created a big confusion and debate among the implementers. For example the disabled welfare and protection act 1982 has provided some reservations to PWDs in private sectors' companies but it has not come in practice so far due to such confusions.

Not having proper access of PWDs to vocational training and other skill development training is another big problem to get away them from employment opportunities. The root causes laid behind this are lack of information, idea and knowledge with relevant agencies to make appropriate vocational training package with friendly methodologies to address the diverse needs of PWDs.

PWDs have special needs which should be addressed before providing them opportunities in the labor market. For example, barriers free work place, special sitting arrangement (if needed), appropriate job (suited to their physical functional limitations) and special equipment etc. But such types of needs are often forgotten while making policy and program.

There are not adequate study-based information to generate idea about which job is appropriate to which disability category and what special arrangement and reasonable accommodation is essential to have their optimum productivity in the job. Mostly the physical structures of work place, training institutions, residential facilities are unfriendly or not useable for the people with disabilities. These conditions keep them away from employment opportunities or labor market. Beside this the training delivering institutions don't have enough expertise, skill and required physical set up to deliver training to those PWDs who need to be trained with special methodologies e.g. people with hearing impairment, visual impairment and intellectual disabilities.

The problem in the attitudes of employers is another important factor that hinders PWDs' access in labor market. Generally the employers have lack of conviction towards persons with disabilities and their capacity. The society is also suffered by a pessimistic thought about disability which has been encouraging PWDs to accept nominal financial allowances from state than empowerment and employment.

### **Solution**

Definitely there are solutions of aforementioned problems but before prescribing the solutions sharing of some good international practices would be encouraging tips to our policy makers and of course, to the employers. In Japan all private and public sectors have legal obligations to employ PWDs in a fixed quota system. The law governing the employment quota system penalizes employers who fail to meet the quota. Both private enterprises and public institutions (national and local governments) are required to comply with this employment quota system. Private enterprises that fail to meet the quota are required to submit a plan to employ persons with disabilities within a three-year period. Failing to submit the plan is penalized by a fine (200,000 Yen maximum), while neglecting to implement the plan is penalized by the Minister of Health, Labor and Welfare. On the other hand, the employers who have met or beat the quota are rewarded or subsidized. Again the collected money from the penalty is used for the employment promotion of PWDs (Ryosuke Matsui).

The current practice of USA may be one good example in this case. Under the Department of Labor there is a network called Job Accommodation Network (JAN) is the leading source of free, expert, and confidential guidance on workplace accommodations and disability employment issues. Working toward practical solutions that benefit both employer and employee, JAN helps people with disabilities to enhance their employability, and shows employers how to capitalize on the value and talent that people with disabilities add to the workplace.

A recently carried out study in Uganda on the employment status of PWDs has disclosed some interesting facts. The employers who have been providing job to PWDs, have given three common but very good complements on the performance of PWDs which are; reliable and stable, easy to motivate and efficient and committed.

We usually think formulating laws and policies as big achievements but in fact it is an instrument to achieve some goals or objectives. Until and unless the laws and policies are owned and realized by the right holders in their daily life this is not more than a useless paper. So, ensuring the realization of legal provisions is more important than formulating it. Regarding to build the access of PWDs in labor market of Nepal, in one hand the legal provisions are not adequate and on the other hand the state and employers do not have concrete ideas and plan to ensure the realization of existing policies and provisions in the life of PWDs. I saw a TV interview of blind women who had just passed the examination of public service commission and recruited for the post of section officer. She was proud of her success and quite enthusiastic to serve people but disappointed not having blindness-friendly reasonable accommodation in her work place. Thus considering these all issues, the following recommendations may be helpful to the concerned agencies for building access of PWDs in labor market.

- a) **Reasonable Accommodation:** Providing friendly and safety environment for the employees at their work station is the key requirement to be fulfilled in any employment sectors of the world. This is not only for the employees but equally important to increase the performance level and productivity of human resource. But, since the special needs of persons with disabilities are not kept in mind while making such working environment they are excluded from many opportunities of economic empowerment. Considering these issues, UNCRPD highly emphasized on "reasonable accommodation" to build access of PWDs in any services, opportunities and rights. Reasonable accommodation is simply to bring essential changes or make correction in the existing environment without extra burden to ensure equal access of PWDs in each services, rights and opportunities. UNCRPD states " Reasonable accommodation means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms;" (UNCRPD 2006). So all the education institutes, vocational and technical training centers, government offices, information services, private sectors should prepare themselves mentally and physically for ensuring reasonable accommodation before providing access in services and opportunities.
- b) **Appropriate and Decent work:** PWDs have diverse physical functional limitations as per the types of impairments. So this is important to identify the types of work that they really want to do and the additional supports and friendly environment they need where they could work full of their capacity. For this, the employer should consult to the employees with disabilities and do accordingly. To build positive attitudes among other employees towards disabled employees is another obligation of employers.
- c) **Appropriate and need based vocational training:** Vocational training prepares people for jobs and adds self confidence. Disability-suitable vocational and job related trainings, job placement plan and reasonable accommodation is very much successful package in the world which has really supported



to promote the economic life of PWDs' in many places. In Nepal, after training, many deaf people are engaged in hotel and restaurant as waiters and giving their outstanding performance. The owners of organizations are much satisfied with their performance and hiring deaf people for their other extended branches. The Bakery Cafés of Kathmandu and Hotel Heritages of Bhaktapur are some live examples of this. The people with physical disabilities (mostly having problems in lower limbs) are seemed very well and competitive in computer works and they can do all those works which are done using mostly the upper limbs. One of my friends is wheelchair user but he is earning good money from his painting skill. Similarly the physically disabled people having limitations in lower limbs are found very good in repairing radio, TV, mobile, watch, computer etc. Blind people can learn massage skill and music very well. In some touristic place (Pokhara, Kathmandu) of Nepal the blind persons are found engaged in massage centre and music band. They are earning good money selling these skills and are also found competitive in goods packaging, making liquid soap, sand stick, bamboo crafts and white can.

Providing vocational training to PWDs may be a bit different and complicated than to other people since their functional limitations and essential support needs vary according to disability category and level of severity; but it is not impossible at all. Considering the needs, disability category and level of severity the training model and methodologies should be modified or accommodated. Except the mainstream model of vocational training the training institutions should explore and adapt other flexible models such as community based model, apprenticeship model, peer training, group training and sheltered model according to the need of PWDs. In Nepal CTEVT is the leading and most experienced agency for vocational training. Annually numbers of skilled human resources are produced and placed in different types of jobs and income generating works. This organization can benefit PWDs through its expertise but before this, it should have some basic preparations. Firstly, CTEVT should rethink its training models and methodologies proactively from disability perspective and be ready to make it disability friendly. Secondly, it must have resourceful trainers to deliver training to those disabled people who need special language or methodologies to impart skills. For example deaf people compulsorily need sign language, blind people and people with intellectual disabilities may need special methodologies. Thirdly, CTEVT should establish a good coordination and cooperation with Disabled Peoples' Organizations (DPOs) such as training institutes run for the skill development of PWDs, CBR organizations, single disability category organizations e.g. organizations of deaf or blind or physically disabled etc., disability resource centre to empower its own human resource and organizational capacities for the inclusion of PWDs in vocational training.

- d) **Physical Access:** The unfriendly physical infrastructures of training centers, government office-buildings, private sectors' work stations, roads and transports services are the other main causes to exclude PWDs from labor market. A bitter sharing of one of my friends with disabilities is relevant to mention here. He had very good command in computer work and wanted to do an intensive course of graphic designing for his further business plan but unfortunately he did not get any such good institutions in Kathmandu where he could go in the classroom with his wheelchair. This implies that bodily limitations are not the main cause to keep PWDs away from opportunities rather it is the disabling human made physical infrastructures. A recent study conducted by Skills and Employment Department under ILO in the 10 countries of Asia and Africa has concluded that physical barriers are the key factors to exclude PWDs from employment. In Nepal, we have the national building code which needs to be amended considering the all requirements of PWDs and implemented and monitored effectively in all sectors (Buckup, Sebastian 2009).
- e) **Discount and Subsidy to Employers and Vocational Training Institutes:** This may be a very effective policy for employing PWDs. The state can provide tax discount, subsidies or any encouraging incentives to the employers and private sectors training institutions for providing job or



training with reasonable accommodation to PWDs. The government may also compensate the cost of reasonable accommodation to the employers and training institutions.

- f) **Effective implementation of Reservation policy:** The policy of rewards and punishment or penalty should be added to implement the provision of quota reservation. The employers who meet or beat the reserved quota should be rewarded and honored and those who neglect the provision should be penalized and the amount collected from penalty should be invested for reasonable accommodation and building physical access in training centers and work stations.
- g) **Additional Role of CTEVT:** CTEVT can start intensive consultations with concerned stakeholders for building disability friendly training environment in its each centre throughout the country and gradually improve the environment. It can also carry out a detail study to identify the diverse training needs of PWDs.

Finally, disability is also a part of human life which exists in any sex, age, race, ethnicity, geography, class and society. Disability cannot be eliminated but can be well managed. Anyone can be suffered by disability at any time. So the persons with disabilities are not any burden for state, society and family at all rather they can be outstanding contributors if their equal access is ensured in all junctures of their lives.

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