From School to Work:

Contemporary TVET Regional Experiences

Final Report of the Seminar

23 - 30 January 2007

National Institute for Educational Policy Research (NIER)
Tokyo, Japan
March 2007

Published by
the Department for International Research and Co-operation
National Institute for Educational Policy Research (NIER)
6-5-22 Shimomeguro, Meguro-Ku, Tokyo 153-8681, Japan
E-mail: kokusai@nier.go.jp
Tel: +81 (Japan) 3 (Tokyo) 5721-5150
Fax: +81 (Japan) 3 (Tokyo) 5721-5517

RW/HM/2007/300

CONTENTS

Executive Summary

The seminar on Technical and Vocational Education and Training "From School to Work: Contemporary Regional Experiences" was convened by the National Institute for Educational Policy Research (NIER) of Japan from 23 – 30 January 2007 in Tokyo. This seminar was co-organised with the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training (UNESCO-UNEVOC), involving members of the Centre's international network of TVET institutions – the so-called UNEVOC Network. The meeting focussed primarily on TVET as a means to preparing school leavers for the world of work and on policies and strategies supporting young people through the actual transition process.

In line with mandates of NIER and UNESCO-UNEVOC to provide platforms for an international exchange of information and good practice, the seminar served to increase the understanding of contemporary regional experiences of transition to work issues in the Asia-Pacific region. It was attended by thirteen representatives of UNEVOC Network member institutions (UNEVOC Centres) from the Asia-Pacific region: Bangladesh, Cambodia, The People's Republic of China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Nepal, Republic of Korea, Sri Lanka, Thailand and Vietnam. In addition, NIER had invited two resource persons to give presentations on key issues related to school-to-work in Australia and in the Pacific Island States.

Several country case studies on school-to-work transition were presented, different approaches and strategies were discussed, and common concerns and issues related to school-to-work transition were identified during the seminar. Based on these key issues and as an outcome of intensive group work, the participants formulated a set of recommendations for a regional strategy on the improvement of TVET.

Chapter 1: Introduction

1.1 Background

The assimilation of youth and young adults into the world of work has become an important policy issue for the majority of countries. Worldwide, changes in the nature of work and employment have weakened the prospects of long-term and secure jobs, even for the most educated young people. A high level of youth unemployment has become a global phenomenon, but it is especially prominent in the Asia-Pacific region.[1] This region is home to over 45 percent of the world's young people without work (in 2005, 39.2 million young people were unemployed). Young people are three times more likely to be unemployed than adults, especially young women are affected.[2]

In past generations the options facing young people finishing their schooling were narrow and clear cut. These days, particularly in the developed world, transitions from full time education to full time work are no longer simple. A variety of post-secondary educational options, either within TVET (Technical and Vocational Education and Training) or higher education, and flexible part-time work form the basis of what may be quite a sustained period of transition for many young people.

School-to-work transition is a broad term, and gained currency during the 1990's with a widespread renewed emphasis on labour market and educational reforms. The term covers areas such as:

- preparing school leavers for the world of work;
- supporting young people through the actual transition process; and
- strategies to increase labour market outcomes in initial employment opportunities.

In the growing recognition of the transition, particularly in the Asia-Pacific region, NIER has decided to organise a regional seminar in collaboration with the UNESCO International Centre for Technical and Vocational Education and Training (UNESCO-UNEVOC). The seminar focussed primarily on the first two stages of the above-mentioned areas, in line with the educational mandate of the two organisations.

A number of issues come into play, and were explored throughout the seminar. As well as obvious structural requirements such as a healthy economy and labour market, appropriate policies and strategies which support young people in the transition from school to working life have an important role. These may include effective guidance and information systems, flexible pathways between school and further study and work,

[1] The transition of youth from school to work: Issues and policies. UNESCO-IIEP, 2000
[2] ILO Facts on Youth Employment, 14th Asian Regional Meeting, 2006

support processes for young people, and special assistance for young people with special needs.

The Organisation for Economic Cooperation and Development (OECD) undertook an extensive study of school-to-work transition across a number of OECD countries between 1996 and 1999, supplemented by meetings and seminars, and published the results in a number of country reports and thematic reviews. The body of work produced by the OECD describes the general context of youth transitions and sets out key policy concerns and prospects particularly relevant to developed countries. It also identified six key features of effective transition systems: a healthy economy, well organised education and training pathways, widespread opportunities to combine workplace experience with education, tightly knit safety nets for those at risk, good information and guidance, and effective institutions and processes.[3]

For countries in transition, and for developing countries, the issue of school to work transition has received much less attention, even though these societies experience the strongest growth in the youth cohort. And for many young people in developing countries, the transition from school to work comes at a relatively early age. The experiences relevant to developing countries and countries in transition in the Asia-Pacific region were explored during the seminar.

1.2 Focus and Objectives of the Seminar

This seminar sought to bring together the best current information on school to work transition in the Asia-Pacific region. It also aimed to build bridges, and to encourage meaningful dialogue between researchers, policy managers and practitioners in the field, and through this modality, promote improved policy outcomes in the region. The seminar topic forms part of the ongoing focus of NIER and UNESCO-UNEVOC on promoting relevant, quality outcomes from education and training for young people.

This regional seminar aimed to address the following key questions:

- How has young people's transition to work been affected by global trends over the past decade?
- Which features of successful transition policies are most important in particular national settings within the Asia-Pacific region?
- What lessons can be learned, and replicated, from national and regional experiences?

[3] "From initial education to working life: making transition work" by M. Durand-Dourand & Richard Sweet (OECD), in: The transition of youth from school to work: Issues and policies. UNESCO-IIEP, 2000

The following outcomes were achieved:

- Increased understanding of contemporary regional experiences of transition to work issues, with particular reference to the Asia-Pacific region;
- Increased mutual understanding of the issues from the perspectives of researchers, policy managers and practitioners;
- Strengthened base for regional sharing of information and action on the issues; and;
- A set of recommendations for a regional strategy on TVET.

1.3 Participants

There were thirteen participants in this seminar from Bangladesh, Cambodia, the People's Republic of China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Nepal, Republic of Korea, Sri Lanka, Thailand and Viet Nam. The participants were invited in their role as representatives of their national UNEVOC Centres. In addition, there were two resource persons from Australia and Fiji. The UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training, as the organising partner of this seminar, was represented by its Director and a Programme Specialist. Furthermore, a Programme Officer from the UNESCO Regional Bureau for Education in Asia and the Pacific attended the seminar. NIER staff served as observers and members of the secretariat. The list of participants is attached as Annex 1.

1.4 Preparatory work by the participants

Participants from each country were requested to prepare short reports on key issues related to the role of technical and vocational education and training in the facilitation of school-to-work transition in their countries. The full text of these country reports can be found in this report in Annex 3.

1.5 Organisation of the seminar

The seminar was organised in a way to ensure maximum participation and interaction between the participants in order to allow for an exchange of experiences and lessons learnt with regard to different approaches to school to work transition in the various countries. The country cases prepared by each participant were presented in roundtable-style sessions followed by questions and answers. Overarching current trends and concerns were elaborated upon in a number of key presentations delivered by the resource persons and experts from UNESCO. Specific questions of relevance to all countries were examined in several working group sessions. The agenda of the seminar is in Annex 2.

Inaugural Session

The session was chaired by Ryo Watanabe, Director, Department for International Research and Cooperation of NIER. The opening address was given by Shigenori Yano, Director-General of NIER. He warmly welcomed the participants and expressed his thanks to the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) for their continuing support to the work of NIER, and also to UNESCO-UNEVOC for the cooperation in the organisation of this seminar. Shigenori Yano briefly elaborated on the longstanding special role of NIER as a platform that facilitates dialogue between researchers, policy makers and practitioners on different aspects of education, not only from within Japan, but also from other countries in the Asia-Pacific region.

The opening address was followed by the welcoming words of Kenji Seyama, Secretary-General of the Japanese National Commission for UNESCO, and Director-General for International Affairs of the MEXT. The topic of school-to-work transition has recently been recognised as crucial by the Ministry, and an action plan for career-oriented education programmes has been developed. In the light of the growing problem of youth unemployment in Japan, Kenji Seyama congratulated the organisers on the timeliness of the seminar, and expressed his appreciation for the efforts of NIER to broaden the discussion beyond the boarders of Japan by inviting the views and experiences from other countries in the Asia-Pacific region.

Rupert Maclean, Director of the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training, followed Kenji Seyama in congratulating on the positive impact that NIER had on education in Asia and beyond. He stressed the importance of TVET in facilitating the transition from school to work and improving the employability of youth. He made further reference to the significance of relevant and good quality TVET in achieving the global goals set by broader international frameworks such as Education for All and the UN Decade for Education for Sustainable Development.

Election of office bearers

The participants unanimously elected the following as the steering committee for the seminar:

Chairperson: Annette Gough, *Australia*

Vice-Chair: Huang Chunlin, *China*

Rapporteur-General: Epeli Tokai, *Fiji*

The following participants volunteered as facilitators for the country case roundtables:

Dhruba Dhungel, *Nepal*

Geethasena Hewa Katupothage, *Sri Lanka*

Nordin Mahmud, *Malaysia*

Bujinlkham Duger, *Mongolia*

Idris Ali, *Bangladesh*

Country case roundtables

In these roundtable sessions, each participant had the opportunity not only to present on issues related to TVET and school-to-work transition in their own country, but also to engage in discussions with the other participants in the time set aside for questions and answers.

Key presentations

NIER had invited two resource persons to give presentations on key issues related to school-to-work in Australia and in the Pacific Island States. In addition, there were presentations by UNESCO experts on global and regional trends, concerns and strategies.

Group work

On several occasions the participants split up into smaller groups in order to discuss more in-depth the following overarching questions and tasks:

- How has young people's transition to work been affected by global trends over the past decade?
- Which features of successful transition policies are most important to particular settings?
- What lessons can be learned from national and regional experiences?
- Setting up a regional strategy.

Closing session

The seminar outcomes were discussed and synthesised on Monday, 29 January 2007. Based on this, the report drafting team prepared a draft report, containing the key issues and general recommendations. The draft report was presented to the participants during the closing on Tuesday, 30 January 2007. After review and discussion, the report was adopted by the participants.

The seminar ended with remarks from NIER and UNESCO-UNEVOC, and a vote of thanks from a representative of the participating countries.

Chapter 2: Presentation, Discussion and Reflection

2.1 Key presentations

"International overview of current issues and concerns regarding TVET"

Rupert Maclean (UNESCO-UNEVOC)

In his introductory presentation, Rupert Maclean, Director of UNESCO-UNEVOC, gave an overview of current issues and concerns regarding TVET. He elaborated on the question "Why is TVET for All so important", especially in the context of reaching the goals set in international frameworks such as Education for All, the Millennium Development Goals, the UN Decade for Education for Sustainable Development and the UN Literacy Decade. Work is a central feature of most people's lives, and having access to decent work and being able to generate a decent income is an important step towards achieving economic and social development, both for the individual and the society as a whole. Since about 80 percent of jobs world-wide require technical and vocational skills, TVET is a direct means for people to acquire these skills and to gain access to employment. But in order to fully develop the potential of TVET, a number of issues have to be addressed such as the financing of TVET, training of trainers, harnessing ICTs and TVET, access to TVET, especially for marginalised groups, and quality and relevance of TVET, etc. UNESCO, with UNESCO-UNEVOC as its specialised centre, is working with Member States in addressing these issues, with a special focus on the needs of developing countries, countries in transition, and those in a post-conflict situation.

"Pathways and transitions from school to work: Australian experiences"

Annette Gough (Royal Melbourne Institute of Technology)

To build up a highly skilled workforce for achieving economic growth, increasing international competitiveness and to develop and strengthen Australia's capacity to effectively operate in the global knowledge-based economy, Australia has put into place a number of policies with regard to education and training for the world of work. A major focus of these policies has been on the creation of flexible pathways between education, training and paid employment, as well as on the identification of key employability skills in cooperation with the private sector. Under these policies, several initiatives were designed to address skill shortages, to encourage young people to stay in school longer, to acquire employability skills and to gain employment experiences, and to see vocational education and training and other options as viable post-school pathways between school and work as well as between school and university. This presentation examined a range of these initiatives, with a focus on Victoria, and also

looked in more detail at the Longitudinal Study of Australian Youth (LSAY) which aims to help understand the transitions between education, training and work through longitudinal surveys of cohorts of young people.

It can be said that the support structures and initiatives available to learners in Australia have improved and increased during the past ten years. However, it is clear that the nature of both students and the workforce keeps changing. Training and education needs to remain adaptable to these changes, and should become part of the culture of the workplace as well as an expected outcome of formal schooling as students make the transition from school to the world of work.

"School to work transitions – Issues and concerns from the Pacific Island States"

Epeli Tokai (University of the South Pacific)

Traditionally secondary education in the Pacific region has been largely academic in orientation catering only for students who aspire for white-collar jobs or providing students with skills and understanding for further academic studies at universities. As a result more and more students are being pushed out of the school system without acquiring relevant knowledge and skills for paid employment and also for self-sufficiency, self reliance and self-employment. This has contributed significantly to the high number of unemployment amongst youth and young adults in the Pacific. Numerous studies reveal that, upon high school graduation, many students who are not college-bound are neither prepared for nor connected to employment opportunities. The effective preparation of students for life and work is beginning to receive more attention now than before. School-to-work transition initiatives offer a promising approach to this issue and require major school restructuring including the need to build genuine partnerships between the Ministries of Education, industries, parents and training institutions. It will also require a major shift in government policies and priorities. School-to-work programmes provide ways for students to transit successfully into the economy, either through paid or self employment. This paper highlighted issues and concerns of Pacific Island governments as they try to put in place mechanisms and systems to facilitate effective transitions/pathways between school and TVET, school and the world of work, and between school and life. Lessons learned from the Palau and Fiji case studies on school to work transitions and the teaching of TVET at secondary level were also discussed.

"Review of policies and programmes concerning the transition from school to work"

Astrid Hollander (UNESCO-UNEVOC)

This presentation examined to what extent, and under which conditions TVET can be considered as an adequate instrument of school-to-work transition, and which policies

work best in a given context. A number of main issues that transition policies are addressing such as youth at risk, youth training schemes, training for the informal sector, and creating links and partnerships with several stakeholders, especially from the world of work, were identified. Typical components of school-to-work strategies include, amongst others, the vocationalisation of education, targeted training schemes, provision of subsidies, improved information systems, career guidance and counselling, and reforms of the certification system. The success of many of these strategies often depends on the availability of human and financial resources, political commitment, and the flexibility of the education systems in place. It was stressed that while each of these strategies can contribute to school-to-work transition, an approach that integrates a variety of interventions that go beyond education and training strategies is more likely to be successful. Furthermore, it has to be borne in mind that even relevant and high quality TVET can only have a limited effect in a situation where economies and, as a consequence, employment opportunities are stagnating and interventions at a macroeconomic level are required.

"From school to work: A multi-stakeholder approach to youth employment"

Lay Cheng Tan (UNESCO Bangkok)

The increase in global youth unemployment is a major concern for Asia-Pacific countries. The issues related to youth unemployment in general, and school to work transition in particular, are multi-sectoral, cutting across many levels, and involve a variety of stakeholders. UNESCO Bangkok is working with many partners to bridge the thin divide between the world of learning and the world of work and to enhance linkages between education and work. There is no one-size-fits-all solution. Features of successful transition policies are manifold, including holistic and flexible approaches to address the issues. Linkages with different stakeholders can help to enhance job prospects for students.

At a brainstorming meeting held in November 2006 in Bangkok with participants representing international organisations, Ministries of Education, Ministries of Labour, industries and youth groups, the following key issues for youth unemployment were identified:

- Mismatch of qualifications with employers' needs
- Lack of labour market information
- Lack of proper career guidance and information
- Lack of exposure of students to the real world of work
- Lack of soft skills
- Economic issues

Within the scope of their possibilities, the participants committed themselves to address some of these issues, for example by working on the advancement of national qualifications framework, the development of quality assurance systems, the identification of skills needs and demands, and the provision of career information and guidance.

The outcomes of the meeting were meant to pave the way for the formulation of a longer-term strategic plan for activities, involving and coordinating the various sectors and stakeholders.

Additional presentations

There were additional presentations by UNESCO on the specific TVET related work programmes of UNESCO-UNEVOC and UNESCO Bangkok. Furthermore, UNESCO-UNEVOC presented the multi-media campaign kit "Learning and Working: Motivating for Skills Development". And Dhruba Dhungel (Nepal) made a presentation on effective learning and sustainable development.

2.2 Country reports

During the first two days of the seminar, time was given to each participant to give a presentation of concerns and issues related to school-to-work transition in their countries. The full text papers of these presentations can be found in Annex 3. Even though there are different approaches to facilitating school-to-work transition, and different challenges to be overcome depending on the local context, throughout all presentations a series of common themes and challenges could be identified.

The status of TVET

In many countries, the status of TVET is low in comparison to academic oriented education and suffers from a lack of social recognition. It is often considered as a "second class education" and a last resort for those students who have difficulties in the academic subjects. As a consequence, the role of TVET as an important vehicle to facilitate transition to the world of work and as a contribution to reduce unemployment is often not recognised or underestimated. There is thus a need to create a positive image of TVET and to stress its importance in order to attract not only students, but also investment from the government and the private sector.

School-to-work policies

For TVET to become an effective tool to facilitate transition, clear strategies and policies need to be put in place and supported at a high political level to ensure a consolidated approach by all stakeholders involved. In many countries, these policies are already in place, but their implementation is lagging behind.

The role of TVET instructors

It is often the teachers and trainers who are the "real" change agents when it comes to educational reforms, as they are the ones who most directly deal with the clientele, i.e. the students. They are also the ones who in the end have to put into practice the policies that are decided at a higher level. School-to-work transition strategies and programmes can only be successful, if teachers and instructors are motivated and well qualified, and in touch both with the current demands of the local labour market and the needs and abilities of their students. To attract motivated and qualified TVET teachers and instructors, adequate remuneration and career prospects should be offered. Regular in-service training is necessary to keep their knowledge about new technologies and work processes up-to-date.

Qualifications frameworks

Certificates and certification play an important role with regard to the transition process, as they make the qualifications of a job candidate visible for the employer. In a situation of a great diversity in TVET provision and a resulting variety of certifications, it is difficult for an employer to asses the real "value" of the certificates presented by a job applicant. National Qualification Frameworks can be an effective way to organise a recognised certification system which increases the transparency of qualifications and the visibility of skills for the employers. Furthermore, nationally and regionally recognised qualifications provide the job seekers with greater flexibility and mobility, even across boarders.

Creating partnerships with the world of work

Whether TVET has the potential to function as an effective pathway to employment depends very much on the quality and the relevance of the content that is taught and the skills that are trained. Several of the country reports reflect a lack of relevance and mismatch between the supply of TVET and the demand of the labour market, with the result that employers are dissatisfied with the skills level of the graduate TVET students that come to apply for jobs. One very effective way to ensure the relevance of the content is to involve the stakeholders from the world of work both at policy as well as at implementation level. In many countries, this partnership is still lacking and a consultation framework that brings together government, employers and the community and that defines the rights and responsibilities of each partner has yet to be developed. At the implementation level of transition strategies, participants considered it as especially important to create links between schools and the private sector in order to facilitate work experience programmes for TVET students, such as internships and on-the-job training opportunities, which so far do not exist in sufficient numbers.

Access and pathways

Youth, including those from marginalised and disadvantaged backgrounds, should have ample opportunities to select and to be trained in their area of interest. Since training is not always affordable to everybody, students should be given the opportunity to earn

income during the training. This could be linked up with work experience schemes, which would also help students acquire skills that are relevant to a future workplace.

TVET should not be a "one-way-street" for students but should open up to several options for employment and/or further learning. There is a need for flexible pathways which encourage lifelong learning and which enable vertical and horizontal mobility between different types and levels of education and training, and employment.

Career guidance and counselling

Good information and guidance become increasingly important as the education and employment choices that young people face are changing and becoming more complex. In many countries of the Asia-Pacific region, there are no comprehensive guidance and counselling services available. Also, reliable labour market information systems are lacking which are a pre-requisite for adequate matching between job searchers and available vacancies.

Economic development

While TVET is considered as an important path towards employment, it is very clear that in a situation of stagnating or low economic growth and development, the creation of employment opportunities is beyond the scope of TVET. The lack of employment opportunities remains a challenge, even if the TVET provided is of good quality and relevance.

Local issues

Many Asian and Pacific countries are the home to very diverse population groups which often speak different languages. Education and training often take place in one or two official languages, not taking into account those learners who do not have sufficient skills in these languages. In this respect, a need for TVET teaching and learning materials in local languages was noted.

Other issues

It was noted that the real indicator for the quality of TVET would be the employment outcomes of TVET graduates.

2.3 Group Work

On Days 3 and 4, the participants split up into two working groups to discuss more intensively the following questions:

- How has young people's transition been affected by global trends over the past decade?

- Which features of successful transition policies are most important in particular national settings?
- What lessons can be learned from national and regional experiences?

In a last session of group work, the participants were asked to set up recommendations for a regional TVET strategy. These recommendations can be found in the following chapter on “Conclusions and Recommendations”.

How has young people’s transition been affected by global trends over the past decade?

The transition from school to work is no longer a matter of simply acquiring the technical and vocational skills for a specific occupational field. As the world of work becomes more complex and more changeable under the influence of global trends, training and education for the world of work has to adapt accordingly. In order to be able to provide learners and trainees with adequate TVET, policy makers and practitioners need to be aware of what these global trends are and what repercussions they will have on the world of work and consequently on TVET.

During this group work and the following discussion on the outcomes, a number of global trends were identified:

- Changes in the economy and the labour market
    - Shift from focus on agriculture and manufacturing towards the service sector
    - Globalisation of the market leads to more competition, both globally and locally
    - Greater mobility of workforce across boarders
    - Unstable employment – long-term or even lifelong employment is no longer guaranteed
- Introduction of new technologies
    - New technology is changing manufacturing and production processes
    - Changes in occupational profiles and respective skills requirements
    - Work processes become more technology intensive, and less labour intensive ? loss of jobs

- New information technology, microelectronics, internet and e-commerce are undergoing dramatic changes which also affect the relationship between manufacturers, suppliers, distributors and consumers

- Demographic factors
  - Increasingly young populations ? age structure of the population and the relative size of the youth cohort influence the ease of entry into the labour market
  - High migration from rural to urban areas ? increased competition for employment in urban areas
- Unsustainable development
  - Depletion of resources
  - Environmental degradation
  - Climate change (affects, for example, employment in the agricultural sector)
  - Pandemics such as HIV/AIDS
  - Marginalisation of specific groups in the labour market such as women, ethnic minorities etc.

Which features of successful transition are the most important in particular national settings?

In line with the themes and challenges identified throughout the country report, this group listed a number of features that they would like to see implemented in their countries to improve the transition process, such as better link to the private sector, increased relevance and quality of TVET, formalised common qualification systems, etc. A number of examples of successful initiatives were given from some of the countries represented in this group:

- Access and pathways
  - Free provision of vocational education, including free boarding for students from rural and remote areas, to facilitate access for all (Mongolia)
  - Flexible TVET system with multi entry and exit opportunities (Cambodia)

- Establishment of provincial training centres to improve access for remote populations (Cambodia)
- Community-based, short-term mobile trainings for rural populations (Cambodia)
- Establishment of a separate university for the NVQ qualification holders to obtain a degree of Bachelor of Technology (Sri Lanka)
- Division of 4-year universities into two branches: Academic/Research oriented and Vocational Education oriented (Republic of Korea)

- Frameworks and policies
  - Recognised national vocational qualifications framework in place (Sri Lanka)
  - Long-term national plan and national policy to develop TVET in place (Cambodia)
  - Ministry of Education upgraded to deputy prime minister level to coordinate human resource development issues (Republic of Korea)
  - Policy in place to increase the enrolment of vocational students up to 70 percent by 2010 (Thailand)

- Linkage with the world of work
  - Proper arrangements or agreements have been made with industries to only recruit the graduates of authorised training institutions (Sri Lanka)
  - Ministry of Education and Ministry of Labour cooperate in developing a strategy for greater involvement of the private sector in policy and implementation of TVET (Mongolia)
  - Most TVET institutes have industrial liaison unit (Cambodia)

- Labour Market information
  - Employment promotion fund provides finance for labour market information service & labour market survey to improve the match between supply and demand side (Mongolia)
  - Skills demand analysis to improve the match between TVET and labour market demands (Cambodia)
  - Incentive policies for graduates to take up unfilled vacancies in remote areas and in unpopular professions (China)

  - Collection of information on alumni employment rates and career paths (China, Republic of Korea)

- Decentralisation
  - Decentralised management system including a National Training Board, Advisory Industry Technical Committee and Provincial Training Board (Cambodia)
  - Decentralisation of implementation of training programmes to different providers, including private providers such as NGOs, through National Training Fund and pilot voucher training programme (Cambodia)

- Vocationalisation
  - Pilot project on vocationalisation of higher education (Republic of Korea)

More detailed information on these examples and the experiences of those countries not represented in this particular working group can be found in the country reports in Annex 3.

What lessons can be learned from national and regional experiences?

As reflected in the country reports, the challenges experienced across the region are often similar and the approaches to find solutions to overcome the challenges often circle around similar themes. Working on the assumption that what works successfully in one country might also work in another country, the participants exchanged the experiences of their different countries to learn from each other. Nevertheless, diverse national contexts and conditions call for an adaptation of these various approaches to each country's specific economic situation and labour market requirements, local demographic, social and political factors, the set-up of the education system, etc.

The results of this group work provided a basis for further elaboration in the group work on developing regional TVET strategies, which is reflected in detail in chapter 3 on "Conclusions and Recommendations".

Chapter 3: Conclusions and Recommendations

As outlined in the introductory chapter, the objectives of the seminar were

- to increase the understanding of contemporary regional experiences of transition to work issues, with particular reference to the Asia-Pacific region;
- to increase mutual understanding of the issues from the perspectives of researchers, policy managers and practitioners;
- to strengthen the base for regional sharing of information and action on the issues; and;
- to set recommendations for a regional strategy on TVET.

Supported by the feedback from the participants and by the impressions of the lively discussions and exchanges of good practice examples and lessons learnt throughout the seminar, the organisers are confident, that these objectives have been achieved.

It is clear that the issue of addressing youth unemployment by creating better pathways from school to the world of work has already been recognised as an important task of the relevant TVET authorities and institutions in most of the countries that participated in the seminar. Not all countries are at the same level when it comes to the development and implementation of the necessary policies and programmes, and, as stated above, there is no "one-size-fits-all" approach that would do justice to the diversity of the different countries. Nevertheless, the participants at this seminar developed a set of recommendations and strategies which broadly apply to issues that are relevant to most of them. These strategies can be found below and can serve as guidance to both the relevant stakeholders in the respective countries, but also give an orientation to international organisations with a mandate in TVET and skills development for the world of work, such as the International Labour Organisation (ILO) and UNESCO.

Issue: International cooperation

The increasing globalisation of labour and education requires countries to be able to collaborate, cooperate, and communicate with each other to ensure the exchange of information and parity of qualifications. Such communication can be facilitated through the involvement of both UNESCO and ILO.

Strategies:

- UNESCO and ILO should assist countries conduct tracer study for job market analysis both in-country and abroad
- UNESCO and ILO to facilitate/organise regular conferences on TVET issues

- UNESCO and ILO to facilitate dissemination of information between countries
- UNESCO and ILO to share successful experiences on TVET with countries in the region

Issue: TVET Institutional Administration

With the growth of TVET institutions many people have moved into administrative roles without adequate and/or appropriate preparation. For TVET institutions to function effectively and efficiently, these administrators need training.

Strategies:

- Develop an occupational standard for institutional administrators.
- Provide training for administrators according to the standards

Issue: TVET for rural and adult populations

There is a need to develop TVET programmes for formal and non formal education sectors to cater for rural and adult populations that are relevant to the local economy.

Strategies:

- Introduce and expand TVET for adolescents, adult males and adult females in rural areas
- Design and introduce modular courses in entrepreneurship and self-employment skills linked to the local market prospects for disadvantaged groups
- Explore ways of supporting skills development programmes in non-formal sector
- Develop national policy and regulatory framework for public, private and NGO TVET providers
- Improve information and communication technologies within TVET by providing Government support through technical, financial and infrastructure assistance.

Issue: Gender equity in TVET

Girls seem to be under-represented in TVET in comparison with boys in most countries. Gender inequalities in access to TVET may reflect not only a gender based division of labour but may also reflect the status that societies attribute to girls/women.

Strategies:

- Introduce measure to attract large number of female entrance into under represented fields
- Introduce stipend programmes for female TVET students
- Adopt measures and target to attract more women into the teaching and management positions in TVET in schools and other training institutions.

Issue: Disadvantaged groups

In most countries poor people, disabled people and religious minority groups are often underrepresented in formal and non-formal TVET programmes.

Strategies:

- Introduce target/quota system for participation of poor, disabled and religious minority groups in TVET programmes
- Utilise Community Learning Centres to implement specific programmes for disadvantaged groups

Issue: Employment of graduates

Improve the percentage of vocational and technical graduates obtaining employment both in domestic and international market.

Strategies:

- Update equipment and curriculum for TVET
- Strengthen TVET teacher training and retraining by developing a competency framework for teachers
- Improve recruitment of competent TVET teachers
- Improve skills and knowledge base of existing TVET teachers
- Strengthen liaison with local and foreign employer associations

Issue: Status of TVET

TVET has been the second choice of students in most secondary and post secondary institutions in the Asia-Pacific region. It generally has much lower status compared to academic education.

Strategies:

- Conduct programmes to create awareness and to change peoples' mindsets about TVET being second choice
- Promote TVET as a career path that has upward mobility to students and parents
- Promote the potential and benefits of TVET as a pathway to work and tertiary studies.
- Highlight skills orientation of TVET such as through Skills Olympiad
- Identify celebrities whose base is in TVET and use them as ambassadors for TVET
- Expand TVET and dual vocational training system
- All TVET courses must be encouraged for both genders

Issue: Increased role of business and industry

An effective demand driven TVET programme has to be coordinated by government together with business and industry with support from other stakeholders such as the private sectors and NGOs. Governments cannot afford to work in isolation. They need the support of the stakeholders to ensure that gaps are filled, and duplication avoided. Coordination of effort is currently seen as the weak link.

Strategies

- Strengthen linkage between schools and business and industry
- Government policies should encourage participation of industries in TVET provisions
- Forge partnerships between the private sector, NGOs and training providers.
- Involve industries in
    - (i) Curriculum development, implementation and monitoring and evaluation
    - (ii) Developing standards
    - (iii) National Qualifications Framework

(iv) Student placement and on the job training

(v) Representation on governance of school

(vi) Developing teachers

Issue: New skills for new times

Globalisation, advancements in technology and other changes are having a major impact in work places today. This will require new skills if industries are to remain competitive.

Strategie:s

- Coordination among UNESCO member states for training and retraining need to be given due priority.
- Best practices of other countries with respect to training of school leavers should be adopted and implemented.
- Governments to develop and promote policies for regular training attachment of teachers and instructors in industries.
- Training providers should involve industries in curriculum development and training
- Ongoing research should be carried out to inform training providers of new developments in the workplaces and in the labour market.
- ICT and foreign language provision should be available in TVET institutions

Issue: Qualifications Framework (QF)

Most countries in the region do not have a transparent qualification framework for the education system. This is a particular need in the TVET sector to give recognition and pathways to further studies and life long learning. People are now increasingly becoming immigrant workers so the national QF needs to be internationally recognised.

Strategies:

- Each country needs to develop and implement a standardised regional qualification framework that is agreed across the region so that skills and qualification is recognised by all national training institutions, industries and countries in the region e.g. certificate 1-4 , Diploma etc. in each occupational category.
- Establish system and framework through dialogue with business, industries, government and training organisation to enable vertical and horizontal movement of graduates

- The Qualifications Framework needs to recognise that young people are likely to seek employment locally, regionally and globally.

Issue: Occupational Standards (OS)

Each country needs to develop agreed OS to underpin their QF to ensure the training programmes have a pathway and mobility so that they can progress through levels and be regionally recognised.

Strategies:

- Each country needs to develop agreed OS each with a set of skills standards (eg level 1… level 4)
- Countries need to work together to develop a standard OS for the region to allow mobility of the labour force
- Establish framework of standardise competencies for young people
- Develop institutional capacity to provide up to date labour market information system
- Set up national board for making standardised competencies
- Set up system for recognition of prior learning and accreditation of work experiences

Issue: TVET Curriculum

In the region, TVET curricula are often outdated and do not meet the needs of industry and the labour market locally, regionally and globally.

Strategies:

- Competency-based standards should also include other learning skills
- Needs to be flexible (modularised and compromise supply /demand)
- Needs to be developed in consultation with business and industries
- Build the capacities of staff in the curriculum development unit
- Develop, implement and evaluate the curriculum
- Internationally recognised competency framework (common regional/ international)

Issue: Developing, attracting and retaining TVET teachers/instructors

Teachers/instructors are key actors in the development and implementation of TVET programmes. However, some have outdated knowledge and skills to be able to cope with the demands of new technologies and the changing needs of industries and some qualified teachers move out of the sector for better benefits. Strategies are needed to develop appropriately qualified skilled instructors and to improve their working conditions and provide them with a career path.

Strategies:

- Governments need to put in place industrial attachment policies for all TVET teachers so that they can continue to upgrade their knowledge and skills
- Strengthen teacher training in literacy and ICT and develop skills to adopt student-centred learning
- Develop occupational standard for teachers
- Develop career structure for teachers
- Improve working conditions of teachers such as social recognition and better salaries in order to recruit and retain them on their job

Issue: Careers guidance and counseling

Students cannot make well informed career choices because of the lack of relevant careers information and trained Careers Counsellors are needed to inform them about career prospects and career pathways.

Strategies:

- Each country needs trained career counselors in schools, training institutions and information centres
- Establish information centres in strategic locations around the countries and employ suitable personnel
- Develop and disseminate career and training information to students, graduates (job seekers) employers and members of the community
- Provide follow up support to successful graduates
- Ensure career guidance information is available on CDs and websites

Issue: TVET infrastructures

Teaching of TVET is often done in poor facilities, with poorly trained teachers and with the absence of or lack of teaching and learning resources for effective learning to take place. As a result, TVET subjects easily degenerate into being taught 'theoretically' with inadequate attention to practical skills learning thus affecting the quality of programmes and the quality of graduates.

Strategies:

- Governments in consultation with industries and training institutions develop minimum standards in all training institutions and upgrade facilities in training institutions to meet standards
- Governments to facilitate the development of a master plan for upgrading the institutions, facilities and equipment
- Need collaboration between schools and industry regarding provision of equipment and other teaching and learning resources

Issue: Monitoring and evaluation (Quality Assurance)

The monitoring and evaluation of TVET curriculum, teachers and graduate outcomes (including employment rate) is essential for assuring the quality of programmes and that they are meeting the needs of industry and labour market as well as being of appropriate educational standard. Programmes need to be benchmarked nationally and internationally

Strategies:

- Curriculum should be periodically reviewed with the involvement of industries and schools
- Student outcomes (graduates and employment) should be regularly evaluated by industry
- Standards should be monitored and revised as appropriate
- Secondary level teachers should be regularly licensed by training authorities
- Institutions should be accredited by training authority composed of business industries, government and professional bodies

Issue: Financing of TVET

Government funding is not sufficient to meet the demand of preparing young people for the work force. School to work transition programmes are not being implemented

effectively because of lack of funds and other related resources for TVET. Other stakeholders need to be involved in funding TVET programmes.

Strategies:

- Encourage stakeholders such as industries and corporate sector to contribute funding for TVET
- Government to provide incentives to industries and private sectors that provide funding for TVET initiatives
- Government to work with donor agencies to support implementation of TVET related reform programmes
- Give autonomy to schools and ensure transparency in financing
- Introduce student loan schemes to enable TVET participation

Annex 1: List of Participants

Participants

Bangladesh

Mr. Md Idris Ali
Professor/Chairman
Bangladesh Technical Education Board and
Director of UNEVOC Centre
Agargaon, Sher-E-Bangla Nagar
Dhaka - 1207
Tel: +88 - 02 - 8113345
Fax: +88 - 02 - 8113345
e-mail: chr_bteb@citech.net

Cambodia

Mr. Tep Oeun
Deputy-Director General, TVET
Ministory of Labor and Vocational Training
#3, St. Russian Federation Blvd., Khan Toul Kok
Phnom Penh
Tel: +855-12606572
e-mail: oeun_tep@yahoo.com

China

Mr. Huang Chunlin
Director
Institute of Higher Educational Research
ZhejiangTechnology Institute of Economy
No.66 Xue zheng Street HEDA Xiasha
Hangzhou, 310018
Tel: +86-571-8692-8205
Fax: +86-571-8692-8205
e-mail: chandlerh@126.com

Indonesia

Mr. Yayat Sudaryat
Head of Development Division
Technical Education Development Centre (TEDE)
Pasantren Km2, Cimahi 40513
West Java
Tel: +62-22-6652326
Fax: +62-22-6654698
e-mail: tedc@tedcbandung.com

Japan

Mr. Kazuyoshi Natori
Senior Researcher
Department for Curriculum Research
Curriculum Research Center
National Institute for Educational Policy Research (NIER)
6-5-22, Shimomeguro, Meguro-ku
Tokyo 153-8681
Tel: +81-3-5721-5066
Fax: +81-3-3714-7073
e-mail: natori@nier.go.jp

Lao PDR

Ms. Nivone Moungkhounsavath
Head of Human Resource Development Office
Vocational Education Development Center (VEDC)
P.O. Box 1639
Vientiane Capital
Tel: +856-21-350497;312422
Fax: +856-21-312421
e-mail: vedc@hotmail.com, nivonemoung@yahoo.com

Malaysia

Mr. Nordin Mahmud
Principal
Sepang Technical Secondary School
43800 Dengkil, Selangor D.E.
Tel: + 603-8925-5255
Fax: +603-8925-5244
e-mail: haidin59@yahoo.com

Mongolia

Ms. Bujinlkham Duger
Executive Director
UNEVOC Centre of Mongolia
Vocational Education Expert
Government Building-2, United Nations Street 5/1
Ulaanbaatar 210646
Tel: +976-11-311635, 976-99089489
Fax: +976-11-262013, 976-11-311635
e-mail: mon_observatory@magicnet.mn

Nepal	**Mr. Dhruba Dhungel** Executive Director Training Institute for Technical Instruction, (TITI), Council for Technical Education and Vocational Training (CTEVT) Sanothimi, Bhaktapur Nepal PO Box 5694 Kathmandu Tel: +977 1 6630187 Fax: +977 1 6630289 e-mail: ed@titi.org.np
Republic of Korea	**Mr. Chang-Kyun Chae** Research Fellow, Director General Center for Human Resource Development at Korea Research Institute for Vocational Education and Training (KRIVET) 15-1, Chongdam 2-dong, Kangnam-gu Seoul,135-949 Tel: +82-2-3485-5082 Fax: +82-2-3485-5069 e-mail: Che@krivet.re.kr
Sri Lanka	**Mr. Geethasena Hewa Katupothage** Additional Secretary Ministry of Vocational and Technical Training Nipunatha Piyasa, 354/2, Elvitigala Mawatha Colombo-05 Tel: +94-11-2596995 Fax: +94-11-2596979 e-mail: adsdev@nipunatha.gov.lk
Thailand	**Mr. Charoen Chaisomkoon** Director Udornthani Technical College 3 watananuwong rd. tambon mark-kheng, ampher muang Udornthani Tel: +6642 221-538 ext. 209 Fax: +6642 246-038 e-mail: rung2514@hotmail.com

Viet Nam

Mr. Hoang Ngoc Vinh
Deputy-Director General
Department of Technical and Vocational Education
Ministry of Education and Training
49 Dai Co Viet
Hanoi
Tel: +84 4 8694919
Fax: +84 4 8694995
e-mail: hnvinh@moet.gov.vn, hnvinh@vnn.vn

Resource Person (Australia)

Ms. Annette Gough
Head
School of Education
Royal Melbourne Institute of Technology
Building 220, Level 4, Bundoora West Campus
Plenty Road
Bundoora
Victoria 3083
Tel: +61 3 99 25 65 80
Fax: +61 3 99 25 75 86
e-mail: annette.gough@rmit.edu.au

Resource Person (Fiji)

Mr. Epeli Tokai
Education Adviser
The Pacific Regional Initiatives for the Delivery of Basic Education (PRIDE)
Institute of Education
The University of the South Pacific
Private Bag, Laucala Campus
Suva
Tel: +679 323-2785
Fax: +679 323-1532
e-mail: tokai_e@usp.ac.fj

UNESCO - UNEVOC

Mr. Rupert Maclean
Director
UNESCO-UNEVOC
UN-Campus, Hermann-Ehlers-Str. 10
53113 Bonn
Tel: +49 228 8150-100
Fax: +49 228 8150-199
e-mail: r.maclean@unevoc.unesco.org

UNESCO - UNEVOC	**Ms. Astrid Hollander** Programme Specialist UNESCO-UNEVOC UN-Campus, Hermann-Ehlers-Str. 10 53113 Bonn Tel: +49 228 8150-106 Fax: +49 228 8150-199 e-mail: a.hollander@unevoc.unesco.org
UNESCO, Bangkok	**Ms. Lay-Cheng Tan** Programme Officer UNESCO-Bangkok 920 Sukhumvit Road, Prakanong Bangkok 10110 Tel: +66 -2-391-0577 (ext. 211) Fax: +66 -2 -391-0866 e-mail: lc.tan@unescobkk.org

NIER Secretariat

Department for International Research and Co-operation
E-mail: kokusai@nier.go.jp
Fax: +81-3-5721-5517

Mr. Ryo Watanabe
Director
Tel: +81-3-5721-5074/ e-mail: ryo@ (followed by "nier.go.jp")

Mr. Takeshi Sasaki
Senior Researcher
Tel: +81-3-5721-5071/ e-mail: takexish@

Mr. Yasuo Saito
Senior Researcher
Tel: +81-3-5721-5072/ e-mail: ysaito@

Ms. Mariko *Ichimi* Abumiya
Senior Researcher
Tel: +81-3-5721-5070/ e-mail: mariko@

Mr. Yoshiyuki Nagata
Senior Researcher
Tel: +81-3-5721-5073/ e-mail: y.nagata@

Mr. Taro Numano
Senior Researcher
Tel: +81-3-5721-5075/ e-mail: taro.n@

Ms. Masako Shinohara
Senior Researcher
Tel: +81-3-5721-5040/ e-mail: masako@

Mr. Hideki Maruyama
Researcher
Tel: +81-3-5721-5054/ e-mail: hidekim@

Mr. Taehoon Kim
Visiting Researcher
Tel: +81-3-5721-5368/ e-mail: a000146@

Annex 3: Country Papers

Australia

Introduction

Australian governments, both national and state, acknowledge the importance of having a highly skilled workforce to achieve economic growth, to increase our international competitiveness and to build "Australia's capacity to effectively operate in the 'global knowledge-based economy'" (ACCI/BCA, 2002, p.1) through policies such as Backing Australia's Ability (2001), Backing Australia's Skills (2004) and Skilling the Future (2006).

In order to achieve such a workforce there have been increasing numbers of initiatives by all levels of government to address skill shortages and to encourage young people to acquire employability skills and to see vocational education and training and other options as viable post-school pathways between school and work. These initiatives are focused on both retaining students at school until Year 12 (end of secondary schooling) and at providing opportunities for students to acquire appropriate employability skills and work experiences while at school, including qualifications, where relevant.

At the national level initiatives being implemented to date include

- Reinvigorating the Vocational and Technical Education System
- The National Training System
- Elevating the Status of Trades
- Rewarding and Encouraging Participation (DEST, 2005).

The Victorian State government released its skills statement, *Maintaining the Advantage: Skilled Victorians,* in March 2006. Here school to work transition is highlighted through one of the four significant action areas. Labelled "starting earlier", this action area focuses on building a skilled workforce by providing greater opportunities for students to participate in vocational education and training while at school to increase their chances of further employment (DET, 2006). (The other action areas in this statement are learning longer, getting smarter and making it easier.)

Currently approximately one third of Victorian senior high school students participate in a vocational program while at school, but the government is investing in a program to help students start their vocational education earlier, as about one in seven Victorian teenagers is still not fully engaged in education or employment (DET, 2006, p.26).

It is well recognised that some students do not wish to remain at school beyond the minimum leaving age and, as this age level is being raised to 16 years of age around Australia (and it will be 17 in some states in the near future), there is increased pressure on alternative training providers to address the education, training and employment needs (and interests) of young people – especially within the context of the goal of achieving a skilled workforce.

An essential part of preparing school leavers for the world of work is the development of their personal attributes and employability skills (previously called key competencies). As discussed later in this paper, the Employability Skills Framework (DEST, 2002) is addressed in competency standards and training packages in the vocational education and training sector in Australia and it will soon be linked to the Years 9 and 10 of secondary schooling in Victoria and to the work related skills units of the Victorian Certificate of Applied Learning (VCAL) for Years 11 and 12 (Thomas et al, 2006).

Within this policy and Framework context, in this paper I will be discussing Australian experiences of pathways from school to post-school education that include both higher education and vocational education, and transitions from school to work. These pathways and transitions have been studied over many years in Australia through the Longitudinal Survey of

Australian Youth conducted by the Australian Council for Educational Research since 1995, through projects conducted by the National Centre for Vocational Education Research (NCVER) and through numerous individual research projects. Some of these will be discussed here.

Firstly though, I will provide some background information on the current situation in Australia with respect to numbers of students and retention in schooling.

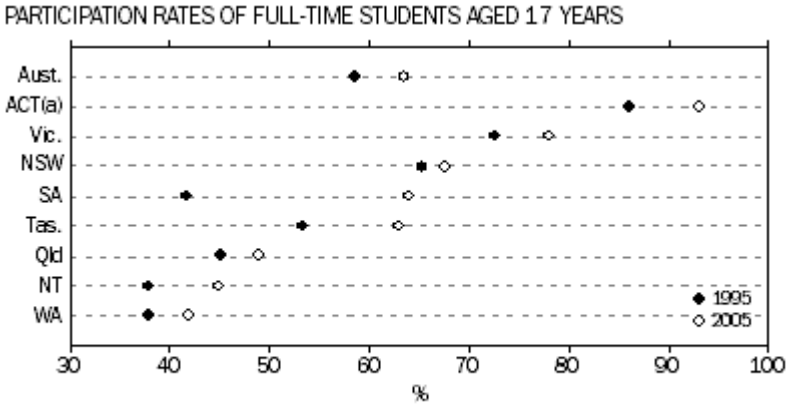
Schooling in Australia, 2005 –a statistical snapshot

The following information from the Australian Bureau of Statistics (ABS, 2006) provide a snapshot of the current numbers of students in schools in Australia, the age participation rates and the retention rates. This information provides the background for the action projects described later in this paper.

Students

- In 2005 there were 3,348,139 full-time school students.
- There were 25,073 part-time school students in 2005, a decrease of 4.1% since 2004. In 2005 there were 135,097 Indigenous full-time school students, a 3.5% increase since 2004.
- There were 3,427 Indigenous full-time students in Year 12, across all States and Territories, in 2005, compared to 2,620 five years earlier.

Age Participation Rates
At the Australian level, the age participation rates for full-time school students in 2005 were 94.7% for 15-year-olds, 82.6% for 16-year-olds and 63.5% for 17-year-olds, the latter rising from 58.6% in 1995.



(a) The ACT figures include some students who are not ACT residents.

Apparent Retention Rates

- In 2005 the apparent retention rate of full-time school students from Year 7/8 to Year 12 was 75.3% compared to 75.7% in 2004 and 72.2% in 1995.
- As in previous years, the apparent retention rate for females (81.0%) was significantly higher than the rate for males (69.9%).
- Apparent retention from Year 10 to Year 12 is down 0.7 percentage points between 2004 and 2005, while over the last decade it has increased from 73.4% in 1995 to 76.5% in 2005.
- The Year 10 to Year 12 rate for females in 2005 was again considerably higher than that for males (81.6% and 71.5% respectively).
  Apparent retention rates for Indigenous full-time school students, from Year 7/8 to both

Year 10 and Year 12, have continued to rise over the last five years — the rate to Year 10 increased from 83.0% in 2000 to 88.3% in 2005, and the rate to Year 12 increased from 36.4% to 39.5%.

This data is broken down by states and years in the following table.

APPARENT RETENTION RATES OF FULL-TIME SECONDARY STUDENTS, From Year 7/8 to Year 12

									AUSTRALIA		
	NSW	Vic.	Qld	SA	WA(a)	Tas.(b)	NT(c)	ACT(c)	Males	Females	Persons
	%	%	%	%	%	%	%	%	%	%	%
All schools											
1999	67.6	76.2	77.5	67.0	71.5	66.7	52.9	92.5	66.4	78.5	72.3
2000	67.5	77.2	77.3	65.4	71.3	69.5	49.7	87.1	66.1	78.7	72.3
2001	68.2	79.3	79.0	66.4	72.0	68.7	50.9	89.3	68.1	79.1	73.4
2002	69.9	80.9	81.3	66.7	73.7	72.6	53.0	88.1	69.8	80.7	75.1
2003	70.5	81.4	81.5	67.1	71.2	74.9	56.3	89.7	70.3	80.7	75.4
2004	71.1	81.1	81.2	68.0	72.6	76.4	59.0	88.5	70.4	81.4	75.7
2005	**71.1**	**80.6**	**79.9**	**70.7**	**72.5**	**67.1**	**59.1**	**87.5**	**69.9**	**81.0**	**75.3**
Government	*65.8*	*74.0*	*73.0*	*61.7*	*65.4*	*65.5*	*70.5*	*99.6*	*63.4*	*75.7*	*69.4*
Non-government	*80.6*	*91.0*	*92.5*	*88.4*	*85.2*	*70.9*	*39.0*	*73.3*	*81.5*	*90.3*	*85.8*

(a) Data for Western Australia (WA) have been affected by changes in scope and coverage over time.
(b) Relatively small changes in student numbers in smaller jurisdictions can create apparently significant movements in retention rates.
(c) Some Australian Capital Territory (ACT) rates exceed 100%, largely reflecting the movement of students from non-government to government schools in Years 11 and 12, and of New South Wales (NSW) residents from surrounding areas enrolling in ACT schools.

While there has been significant growth in retention rates to Year 12 since 1999, data for 2005 indicates that in most states – including the populous ones, New South Wales, Victoria and Queensland – the retention rates have plateaued or declined. This is of a concern to governments such as Victoria's, for example, which has a goal that by 2010 90 per cent of young Victorians will successfully complete Year 12 or its equivalent (Kosky, 2003).

Employability skills

Industry and educators agree that in making the transition from school to work all young people need a set of skills that will prepare them for both employment and further learning. Employers are looking for these skills in people, whether they are prospective or existing employees, and post-school education and training institutions are looking for students to have a similar set of attributes.

In 1992 a set of seven generic skills, the Mayer Key Competencies, were identified as the basic transferable competencies that underpin employability and the capacity to adapt to different types of whole work roles, as well as personal and community activities throughout an individual's life. These Key Competencies are:

- collecting, analysing and organising information
- communicating ideas and information
- planning and organising activities
- working with others and in teams
- using mathematical ideas and techniques
- solving problems
- using technology.

These competencies have been incorporated into vocational education and training programs for over a decade as they are seen as playing a critical role in ensuring that the Australian workforce is equipped with the necessary skills for effective participation in the workplace.

More recently, the Australian Chamber of Commerce and Industry and the Business Council of Australia (2002) conducted a research project to provide the Department of Education, Science and Training with a detailed understanding of the employability skills needs of industry. This project sought the views of employers with regard to the set of employability skills relevant to Australian industry for the future. The project identified those key generic employability skills that enterprises argue individuals should have along with the job-specific or relevant technical skills. The project also identified the ongoing relevance of the Mayer Key Competencies but confirmed that employers now required a set of personal attributes in all employees and a set of additional skills. These additions were seen as essential by the enterprises participating in the research project.

As a result of the research project, an Employability Skills Framework has been developed to contribute to the thinking and curriculum development of the Australian education and training system. This Framework reflects the personal attributes and employability skills needs of enterprises seeking to grow and compete in an era of globalisation. The personal attributes that contribute to overall employability are: loyalty, commitment, honesty and integrity, enthusiasm, reliability, personal presentation, commonsense, positive self-esteem, sense of humour, balanced attitude to work and home life, ability to deal with pressure, motivation and adaptability. The enterprises saw these attributes as a new and essential component of employability skills.

The key skills that together with the personal attributed make up the Employability Skills Framework (DEST, 2002) are:

- **communication** skills that contribute to productive and harmonious relations between employees and customers;
- **teamwork** skills that contribute to productive working relationships and outcomes;
- **problem-solving** skills that contribute to productive outcomes;
- **initiative and enterprise** skills that contribute to innovative outcomes;
- **planning and organising** skills that contribute to long-term and short-term strategic planning;
- **self management** skills that contribute to employee satisfaction and growth;
- **learning** skills that contribute to ongoing improvement and expansion in employee and company operations and outcomes; and
- **technology** skills that contribute to effective execution of tasks.

This Employability Skills Framework has generally replaced the Mayer Key Competencies as the set of defined skills to be explicitly addressed in all future development of competency standards and training packages in the vocational education and training sector in Australia.

Studying the learning pathways of Australian youth

One of the major policy thrusts of Australian governments in recent years has been the creation of flexible pathways between education, training and paid employment. The Longitudinal Survey of Australian Youth (LSAY) has been conducted by the Australian Council for Educational Research since 1995 to help understand the transitions between education, training and work through longitudinal surveys of cohorts of young people. Using annual telephone interviews, the LSAY project studies the progress of several groups of young Australians as they move from school into post-secondary education and work.

Recent reports from the LSAY project have included studies of

- Assessing the Value of Additional Years of Schooling for the Non-academically Inclined (Dockery, 2005)
- Attitudes, Intentions and Participation (Khoo and Ainley, 2005)
- Course Change and Attrition from Higher Education (McMillan, 2005)

- Life Satisfaction of Young Australians: Relationships between further education, training and employment and general and career satisfaction (Hillman and Thomson, 2005)
- Non-apprenticeship VET Courses: Participation, persistence and subsequent pathways (McMillan et al, 2005)
- Participation in and Progress through New Apprenticeships (Ainley and Corrigan, 2005)
- Pathways from School to Further Education or Work: Examining the consequences of Year 12 course choices (Thomson, 2005)
- The First Year Experience: the transition from secondary school to university and TAFE in Australia (Hillman, 2005a)
- The Transition to Full-time Work of Young People Who Do Not Go to University (Marks, 2006)
- Unmet Demand? Characteristics and activities of university applicants not offered a place (Marks, 2005)
- Variations in VET Provision across Australian Schools and Their Effects on Student Outcomes. (Lamb and Vickers, 2006)
- Young People Outside the Labour Force and Full-time Education: Activities and profiles (Hillman, 2005b)

In addition, in 2004 LSAY published *An Easy Reference Guide to Longitudinal Surveys of Australian Youth Research Reports, 1996-2003* (Penman, 2004) to enable easier access to information about the experiences of Australian youth as they move through secondary schooling, into further education or training, and into the world of work and adult life.

Many of the findings from these surveys are relevant for this seminar in terms of their relevance to discussions of preparing school leavers for the world of work and supporting them through the transition process and they will be included in the accompanying presentation.

Supporting students to stay at school

Students are encouraged by governments (and often parents) to stay at school – because education and training increases the likelihood of a better job and the likelihood of engaging in lifelong learning, and because "research indicates that if young people have trouble making the transition from education and training towards secure employment by their mid-twenties, they continue to be disadvantaged in many ways, both financial and social." (Department of Education, 2006)

In this section I provide details of strategies to support students staying at school and to prepare them for the world of work from the state of Victoria, but similar strategies are in place in other states.

Youth Guarantee

While school is usually the best place for most students to complete their education through the completion of a senior secondary certificate, usually the Victorian Certificate of Education (VCE) or the Victorian Certificate of Applied Learning (VCAL), for some young people options other than school may be more suitable.

The soon to be proclaimed Victorian Education and Training Reform Act 2006 provides a guaranteed place (the Youth Guarantee) in TAFE institutions, the Centre for Adult Education (CAE), Adult Multicultural Education Services (AMES) and participating adult community education (ACE) providers to young people who have not completed Year 12 or its equivalent. Young people must be aged 16 or over to access a guaranteed place in a TAFE institute, the CAE, AMES or participating ACE providers. Youth Guarantee providers are required to offer a place to eligible young people as a matter of priority. Providers are to work to place young people in courses that will meet their needs and which are consistent with government training priorities.

Managed Individual Pathways
The Managed Individual Pathways (MIPs) program was introduced to help all students 15 years and over through the final years of school and into further education, training or secure employment. Each student has individual pathway plans and support to help them achieve their goals, and each school has a MIPs coordinator.

MIPs aims to help young people to:

- make a smooth transition from compulsory schooling to further education, training and employment
- develop skills to manage their pathways throughout their working lives
- develop their knowledge, understanding and experience of opportunities in education, training and employment

Schools see the MIPs program as a way of addressing absenteeism and low retention rates as students' pathway plans are used within the school in ways that lead students to access, value, identify with and ultimately retain their plans. Students retain their plan when they leave or transfer to another school. The program also includes follow-up of early school leavers (those who don't complete Year 12) at the time of leaving and six months later.

At TAFE institutes and Adult Community Education organisations, young people 15 to 19 years old who have not yet completed Year 12 and who are not in full time employment can participate in a Youth Pathways Program, which incorporates MIPs support within a training or education program.

Victorian Certificate of Applied Learning (VCAL)
The Victorian Certificate of Applied Learning (VCAL) is a hands-on option for students in Years 11 and 12. It gives students practical work-related experience, as well as literacy and numeracy skills and the opportunity to build personal skills that are important for life and work. Many students commence or complete VET certificates as part of their industry specific skills. Like the Victorian Certificate of Education (VCE), VCAL is an accredited secondary certificate.

The VCAL has been structured for students who are likely to be interested in going on to vocational education and training, starting an apprenticeship, or getting a job after completing school. However, students can also transfer to the VCE if they decide that they would like to go on to university.

The VCAL has been a huge success for Victorian students, improving their pathways to employment destinations and improving school retention rates. Beginning with over 5,000 students in pilot schools in 2003, in 2006 there were more than 12,000 students enrolled in the VCAL.

The 2006 Victorian budget included funding to help VCAL teachers strengthen links between schools and industry to improve opportunities for students and also tailor VCAL programs to meet local and statewide skills shortages.

School Based New Apprenticeships
A recent initiative in Victorian schools is the School Based New Apprenticeships (SBNA) which enable students to do an apprenticeship or traineeship part-time while still at school completing VCAL or VCE. Currently there are over 800 apprenticeship and traineeship pathways available to students and undertaking these can be credited as part of VCAL or VCE studies.

Informing post-school pathways
Many Australian school students engage in the world of work through their paid part-time work outside school hours. In addition, school students are increasingly being employed as school-based apprentices and trainees as part of their schooling program (see below).

Schools can use these work experiences as a resource to assist students to prepare for and make decisions about their transition to work and working life. For example, teachers can

incorporate instances of 'authentic' working-life experiences in classroom-based activities to encourage individual reflection and collective discussion and appraisal of the world of work, working life and post-school pathways.

A recent research project conducted by Stephen Billett (2006, p.2) around this topic concluded that "the paid work experiences of Australian school students are different from and potentially superior to [the] school organised work placements, because paid work expects both students and employers to recognise the rights and responsibilities of their employee–employer relationship." Also, as the students' paid work experiences are usually ongoing and of a longer duration than school-organised work placements which gives them a more authentic experience of the world of work, he concluded that using reflection and discussion of these experiences instead of actual work placements by schools (Billett, 2006, p.3)

> provides a practical solution to a shrinking pool of work placements, given the difficulties that many schools experience in providing and monitoring these placements. Classroom-based reflections on students' paid work experiences can become an educational resource—one that is freely available in Australian schools—and offer the prospect of considerable savings in school resources (for example, administrative and travel costs to support work placement programs). These resources can then be redirected to other means of preparing and supporting students for their post-school pathways. In this context these paid work experiences have the potential to provide a rich resource.

As this is only a recent research report we will have to wait and see if schools take heed of its conclusions.

Post-school Learning Pathways

On Track

On Track is a Victorian Government initiative designed to ensure that Year 10 to 12 school students are on a pathway to further education, training or employment after leaving school. It builds on the Managed Individual Pathways (MIPs) program available in Government schools. MIPs assists 15-19 year old students with individual career and education plans and support to implement those plans.

On Track ensures that Year 10-12 students are contacted after leaving school and assisted with further advice if they are not studying or in full time employment. It also includes a research component to provide a comprehensive picture of what happens to young people after they leave school. This information is available on the *On Track* website (http://www.sofweb.vic.edu.au/voced/ontrack/default.htm).

Pre-apprenticeship programs

Pre-apprenticeship programs are designed for students without Year 12 certificates to acquire the basic skills required to apply for and enter a formal apprenticeship course. Training providers often then assist students to find an employer and take on a formal apprenticeship. Currently pre-apprenticeships are available for the following industries in Victoria: automotive, general construction, engineering, furnishing, hairdressing and recreational vehicle manufacturing.

NCVER has funded a research project on pre-apprenticeship: policy options in key trades to determine, among other things, the apparent value added through pre-apprenticeship. This aspect of the study will seek employer and apprentice views on whether undertaking a pre-apprenticeship assists the student in gaining an apprenticeship compared with those who have not done one; whether pre-apprenticeship graduates enjoy better retention rates through an apprenticeship related to their pre-apprenticeship study and whether their apprenticeship completion rates are better. The project report is due in mid-2007.

Vocational Education and Training and University Education

The formal VET sector is the main vehicle through which Australians can respond to emerging skill needs so they are both employed and productive. Currently there are more than 1.5 million

people doing formal VET studies, including over 400 000 apprentices. The most recent NCVER student outcomes from VET studies survey reported that almost 90% of graduates who undertook training as part of an apprenticeship or traineeship were employed after training (NCVER, 2006), which is good news for students' successful transition from school to work..

A different study, focusing on tailoring VET to meet the needs of the emerging labour market, found a number of factors that drive participation in VET at the regional level (Teese in Mouhtouris, 2007). These include

- Regional economic structure, which relates to the kind of industries in a region and the state of the labour market. Regional economic structure is influential because it represents a set of employment incentives to training.
- Population characteristics such as level of education, indigenousness, and non-English speaking background have a significant secondary influence on the level of participation in VET.

According to Richard Teese (in Mouhtouris, 2007), "Participation in VET depends upon what you've got in your region in the way of jobs and what access you, as an individual, have to these labour markets. Regional economic structure influences how many jobs there are. You can't force people into training. They've got to have obvious economic incentives to engage in training."

The study has also pointed out the need for greater equity so that people from disadvantaged and poorer backgrounds have much greater access to skilled and technician-level training and the need for greater dialogue between employers and the community if there are to be skilled people to do the work within the community.

For some time the Australian Government has argued that students need to be encouraged pursue vocational rather than university programs – such as in the following extract from the 2005 budget papers (DEST, 2005):

> For too long, students have been pushed to consider university as the one and only acceptable option for achieving status and success after school.
> Progressively people are realising that a vocational qualification can lead to a challenging, diverse, independent and, for many, lucrative career.
> Today there are almost 394,000 Australian Apprentices in training, compared with around 144,000 in the mid 1990s. Australian Apprenticeships are available in more than 500 occupations – commencements in trades and related Australian Apprenticeships increased by 19% in the 12 months to September 2004.
> The Australian Government will continue to provide choice and ensure that young people are aware of their options.

However, the issue is not so simple. As Birrell and Rapson (2006) have argued, there is as much a need for places in university education as in vocational education to meet the growing demand for professional skills caused by the impending baby-boomer retirement. The Australian Government's (2006) *Skills for the Future* initiative includes more engineering places at universities, but all other programs are targeted at vocational education. What is clear from a recent research study by Harris et al (2006) is that young people's moves between VET and higher education are more like crazy paving than stepping stones. Students move as much from VET to higher education as they move the other direction, and the moves they make are both functional and effective to meet their particular choices – although in some instances their 'zigzag' paths were because of lack of guidance, lack of fit between courses attempted, inexperience and lack of course prerequisites.

Back in 1982 Ted Mooney succinctly stated, "here we are getting older, there they are getting different" (p.80). The Harris et al (2006) study had similar findings in that, instead of a linear journey of learning as we would expect from past experiences, young people presented a fragmented picture of a learning pathway as a crazy paving with five distinct patterns of movement: interest chasers, career developers, career mergers, forced learners and two-trackers.

Case study: Young Parents Access Project

In Victoria, one outcome from the ministerial Review of post compulsory education and training pathways (Kirby, 2000) was that schools developed partnerships with local community agencies to support students to successfully complete their schooling and make effective transition in to further education, training or employment.

At Corio Bay Secondary College, a school in a low socio-economic area in the regional city of Geelong, Victoria, low levels of retention, attendance and student outcomes had been an issue for some time. Teenage pregnancy rates in the area are almost five times the national average (>92 births per 1,000 women aged 15-24 compared with 18.1 for women aged 15-19 nationally).The school introduced the Young Parents Access Program around 5 years ago with the specific objectives of retaining, re-attracting and supporting young parents into the education system, and improving the educational levels and future educational and employment opportunities for this target group (Armstrong, 2003). Students who have returned to schooling through YPAP have done so for a number of reasons – to complete their school qualification, as a stepping stone to employment or further education and training, or a better life in the short term.

Returning to study has not been easy for many of the students. After short or long absences the students are juggling being parents with being school students as well as being re-inducted into learning practices. Their transition back into schooling requires that their previous educational histories are taken into account (often these have not necessarily been very successful), that their readiness is assessed, their pathways are planned with realistic choices and sensible study loads and that they receive support through pathway counselling and planning (Shacklock et al, 2006). The school has introduced flexible modes of learning and assessment which allows for irregular attendance and a more applied and adult approach to learning.

Not all has gone smoothly for either the school or the students returning through YPAP, although there are many positive stories. One of the major issues identified by Shacklock et al (2006, pp.38.-39) is that "the school's teachers operate from an expectation that students need to conduct their participation in learning *as if they were not pregnant or parenting*. This is a contradiction and sets up conditions for failure". This issue is closely related to other issues such as poor attendance, and it needs to be addressed through greater educational support to complement the strong personal support being provided to the students.

What is important is about this story is that the school did establish YPAP in response to a local need and it has been successful in retaining, re-attracting and supporting young parents into the education system, and improving the educational levels and future educational and employment opportunities for this target group. And the program is growing more success stories each year as the students are supported through their schooling and into employment or further education and training.

Summary

Australia shares an agenda with most other countries: to have a highly skilled workforce able to operate effectively in a globalised economy. In order to achieve this goal, the national and state governments have introduced a range of initiatives to support students to stay at school, to gain employability skills and employment experiences while at school, and to have a range of learning pathways available in the post-school period. But, what does this well-skilled future look like, and how are we going to there?

Students in Victoria – and many other Australian states – are consciously being prepared for work through the education system and managed in their transition from school to work through a number of strategies The support structures and initiatives available are much more than what was available a decade ago. The young people's responses are also being monitored through research studies such as the Longitudinal Surveys of Australian Youth (LSAY) conducted by

ACER, and the studies being undertaken by the National Centre for Vocational education Research (NCVER). However, what is clear is that the nature of both students and the workforce is changing.

Much of the agenda for schools in preparing students for work is being driven by employers and industry, through strategies such as the Employability Skills Framework (ACCI/BCA, 2002) which now provides the underpinnings of all vocational education and training packages and into secondary schooling too. But, as Richard Teese (in Mouhtouris, 2007) recently noted, while the formal VET sector has a significant role to play in skills development, employers also need to be continuously active in training because the workplace is a major site of skills development, including for students still in school engaged in casual employment: Training needs to become part of the culture of the workplace as well as an expected outcome of formal schooling as students make the transition from school to the world of work.

References

Ainley, John & Corrigan, Matthew (2005) *Participation in and Progress through New Apprenticeships.* (LSAY Research Report No. 44). Camberwell, Victoria: Australian Council for Educational Research.

Armstrong, L. (2003) Corio Bay Secondary College – Young Parents Access Project. *Health Education Australia* 3(3): 12-15.

Australian Bureau of Statistics (2006) *4221.0 - Schools, Australia, 2005.* Accessed at http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/4221.0?OpenDocument on 9 January 2007.

Australian Chamber of Commerce and Industry and the Business Council of Australia (ACCI/BCA) (2002) *Employability Skills for the Future*. Project final report. Canberra: Department of Education, Science and Training.

Australian Government (2006) Skills for the Future. Accessed at http://www.skillsforthefuture.gov.au/about.htm on 5 January 2007.

Billett, Stephen (2006) *Informing post-school pathways: Investigating school students' authentic work experiences*. Adelaide: National Centre for Vocational Education Research.

Birrell, Bob & Rapson, Virginia (2006) *Clearing the Myths Away: Higher education's place in meeting workforce demands.* Melbourne: Centre for Population and Urban Research, Monash University.

Department of Education (2006) Leaving School before End of Year 12. Accessed at http://www.education.vic.gov.au/aboutschool/leaving/default.htm on 9 January 2007.

Department of Education and Training (DET) (2006) *Maintaining the Advantage: Skilled Victorians.* Melbourne: Department of Education and Training.

Department of Education, Science and Training (DEST) (2004) *Backing Australia's Skills at a Glance* Canberra: Department of Education, Science and Training. Accessed at http://www.dest.gov.au/portfolio_department/dest_information/publications_resources/resources/budget_information/budget_2005_2006/bas_at_a_glance.htm on 5 January 2007.

Dockery, Alfred (2005) *Assessing the Value of Additional Years of Schooling for the Non-academically Inclined* (LSAY Research Report No 38) Camberwell, Victoria: Australian Council for Educational Research.

Harris, Roger, Rainey, Linda & Sumner, Robert (2006) *Crazy paving or stepping stones? Learning pathways within and between vocational education and training and higher education.* Adelaide: National Centre for Vocational Education Research.

Hillman, Kylie & Thomson, Sue (2005) *Life Satisfaction of Young Australians: Relationships between further education, training and employment and general and career satisfaction.* (LSAY Research Report No 43). Camberwell, Victoria: Australian Council for Educational Research.

Hillman, Kylie (2005a) *The First Year Experience: the transition from secondary school to university and TAFE in Australia*. (LSAY Research Report No 40). Camberwell, Victoria: Australian Council for Educational Research.

Hillman, Kylie (2005b) *Young People Outside the Labour Force and Full-time Education: Activities and profiles*. (LSAY Research Report No 45). Camberwell, Victoria: Australian Council for Educational Research.

Khoo, Siek Toon & Ainley, John (2005) *Attitudes, Intentions and Participation*. (LSAY Research Report No 41.) Camberwell, Victoria: Australian Council for Educational Research.

Kirby, Peter (Chair) (2000) *Ministerial review of post compulsory education and training pathways in Victoria; final report.* Melbourne: Department of Education, Employment and Training. *0*

Kosky, Lynne (2003) Framework for Reform. Accessed at http://www.education.vic.gov.au/about/publications/speech/framework.htm on 9 January 2007.

Lamb, Stephen & Vickers, Margaret (2006) *Variations in VET Provision across Australian Schools and Their Effects on Student Outcomes.* (LSAY Research Report No 48). Camberwell, Victoria: Australian Council for Educational Research.

Marks, Gary (2005) *Unmet Demand? Characteristics and activities of university applicants not offered a place*. (LSAY Research Report No 46). Camberwell, Victoria: Australian Council for Educational Research.

Marks, Gary N. (2006) *The Transition to Full-time Work of Young People Who Do Not Go to University*. Longitudinal Survey of Australian Youth. Research Report 49. Camberwell, Victoria: Australian Council for Educational Research.

Mayer, Eric (Chair) (1992). *Putting general education to work: The Key Competencies*. The Australian Education Council and Ministers for Vocational Education and Training.

McMillan, Julie (2005) *Course Change and Attrition from Higher Education* (LSAY Research Report No 39). Camberwell, Victoria: Australian Council for Educational Research.

McMillan, Julie, Rothman, Sheldon & Wernert, Nicole (2005) *Non-apprenticeship VET Courses: Participation, Persistence and Subsequent Pathways*. Longitudinal Survey of Australian Youth. Research Report 47. Camberwell, Victoria: Australian Council for Educational Research.

Mooney, Ted (1982) *Easy Travel to Other Planets*. London: Jonathan Cape.

Mouhtouris, Alethea (2007) Skilling Up. *Campus Review*, 10 January, pp.10-11.

National Centre for Vocational Education Research (NCVER) (2006). *Australian vocational education and training statistics: Student outcomes 2006 – Summary*. Adelaide: National Centre for Vocational Education Research.

Penman, Robyn (2004) *An Easy Reference Guide to Longitudinal Surveys of Australian Youth Research Reports, 1996-2003*. Camberwell, Victoria: Australian Council for Educational Research.

Shacklock, Geoff, Harrison, Lyn, Angwin, Jennifer & Kamp, Annelies (2006) *A Research Report from the Taking Your Baby to School Project.* Teaching and Learning and the Young Parents' Access Project at Corio Bay Senior College. Geelong, Victoria: Deakin University.

Thomas, Peter, Roe, Julius & Tarrant, Maria (2006) *Inquiry into vocational education and training : a report to the Minister for Education and Training*. Melbourne: Department of Education and Training.

Thomson, Sue (2005) *Pathways from School to Further Education or Work: Examining the Consequences of Year 12 Course Choices*. Longitudinal Survey of Australian Youth. Research Report 42. Camberwell, Victoria: Australian Council for Educational Research.

Bangladesh

Bangladesh Profile

OFFICIAL NAME	The People's Republic of Bangladesh
CAPITAL	Dhaka
GEOGRAPHICAL LOCATION	Latitude : Between 20°34′ and $26^0$38′ N Longitude : Between 88°4′ and 92°41′ E
AREA	147,570 sq. km.
BOUNDARY	North : India West : India East : India and Myanmar South : Bay of Bengal
CURRENCY	Taka (US$ 1.00 = Tk. 71.00)
TIME	GMT +6
MAJOR CITIES	Dhaka, Chittagong, Khulna, Rajshahi, Barisal, Mymensing, Bogra, Comilla and Sylhet.
CLIMATE	Average Winter temp (max 29°C min 11°C) Average Summer temp (max 34°C min 21°C) Monsoon Rainfall : Lowest 1194 mm Highest 3454 mm
MAIN SEASONS	Winter (November-February) Summer (March-June) Monsoon (July-October)
SEA PORTS	Chittagong and Mongla.
AIR PORTS	Dhaka, Chittagong, Jessore, Rajshahi, Iswardi, Sylhet, Cox's Bazar, Syedpur and Barisal.
POPULATION	145 million (about)
LITERACY RATE	65.5 %
NATIONAL LANGUAGE	Bangla
PRINCIPAL RIVERS	Padma, Meghna, Jamuna, Brahmaputra, Teesta, Shurma and Karnaphuli (in all 230 rivers including tributaries and branches).
PRINCIPAL INDUSTRIES	Readymade Garments, Jute, Tea, Paper, Newsprint, Cement, Fertilizer, Sugar, Light Engineering, Electric Cable, Leather, Tobacco and Fish.

1. INTRODUCTION

At the advent of new millennium many known and unknown challenges are knocking at the door. Human Resource Development (HRD) is one of the major challenges to meet the demand of the ever-changing job market both in developed and developing countries. This has become more complex with the globalization, rapid change of technology, international labor migration, open market economy and the exploitation of information technology.

This is the high time for the developing countries to be determined to compete in the regional and world market or at least to survive. Bangladesh with her limited resources and a large population has greater possibility of attaining socio-economic enhancement through human resource development. To keep pace with the challenges of the 21st century, for human resource development, Bangladesh is intended to prepare competitive, flexible and adaptable workforces that would be able to seize the opportunities of a knowledge-based, technology-driven economy. Recommendations of the NIER-UNESCO seminar on Technical and Vocational Education and Training "From school to work - contemporary regional experiences" will be useful to asses new technology, new workplace and new skills for changing job. It will also be helpful in organizing training and policy planning for school leavers, the entrants to the job markets from various streams, grades and branch of education.

In context of the focus of the seminar the paper describes the following aspects :

1. Introduction.
2. Present status of TVET system in Bangladesh.
3. School leavers-entrants to the job market
4. Impact of new technology.
5. Features of New work place and future skills.
6. Feature of training.
7. The main sources of supply of skill in Bangladesh.
8. The diversity and complexity of TVET in Bangladesh.
9. Training policies and strategies : Rationale and options for change.
10. Conclusion and Recommendations.

2. PRESENT STATUS OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) SYSTEM IN BANGLADESH.

The constitution of Bangladesh obligates the government to adopt effective measures to introduce uniform, non-discriminatory, mass-oriented and universal system of education inducing free and compulsory education for all children.

The government has given due emphasis for the expansion and quality of TVET as a means of human resource development for accelerated economic growth and social development. The target is to enroll 20 percent of the secondary and post-secondary students in the TVE stream by 2020.

2.1 TVET Structure

The present structure of the formal education system of Bangladesh is in 5-5-2-2/3/4/5 year pattern. The designated stages are Primary Education (5 years), Secondary Education (3+2=5 years), Higher Secondary Education (2 years) and Higher Education (mainly 4 years). In special cases higher education covers a period for 2/3/5 years.

Technical and Vocational Education (TVE) in Bangladesh are offered both at the

secondary and post-secondary level including higher education. The certificates and diplomas in the TVE areas are awarded by the Bangladesh Technical Education Board (BTEB) while the higher technical degrees by the universities and BITs.

2.2 Policies and Legislation Authorities

The Ministry of Education (MOE) has the overall responsibility of making policy decisions for all education including technical and vocational education. The other ministries and organizations of the government involved in decision making for education and training are: Ministry of Agriculture, Ministry of Health, Ministry of Labor and Employment, Ministry of Textile, Ministry of Environment and Forest, Ministry of Youth and Sports, Ministry of Women and Children affairs, Ministry of Social Welfare and NGO Bureau. Ministry of Finance is responsible for allocation of resources and Ministry of Planning is involved in planning process of technical and vocational education program with the assistance of the relevant ministries and departments.

Major organizations involved in organizing and implementing technical and vocational education are :

- National Council for Skill Development and Training (NCSDT) :
- Bangladesh Technical Education Board (BTEB) :
- Directorate of Technical Education (DTE) :
- Bureau of Manpower, Employment and Training (BMET):

2.3 Programs, Institutions and enrolment.

2.3.1 Formal TVET.

Program	Enrolment capacity	Institutions		
		Public	Private/NGO	Total
Post Secondary Diploma (Engg/Textile/Marine/Forestry/ Agriculture /Medical/ Avionic	41035	72	261	333
Post Secondary Business	96000	2	1318	1320
Post Secondary Vocational	2875	64	-	64
Secondary Vocational	132360	122	1420	1542
NSS II & III	880	-	7	7
NSS Basic/Basic Trade	43092	80	74	154

2.3.2 Non-formal TVET.

- Ministry of Youth & Sports, Ministry of Women & Children Affairs, Ministry of Social Welfare and BSCIC offer non-formal vocational training through their training centers.
- BITAC offers advanced industrial training.
- Over 100 NGOs/Nonprofit Trade Schools offer skill training specially to poor.
- 160 nonprofit Vocational Training Centers offers short skill training to local people.
- Over 200 private profit-motive skill training centers offer skill training, particularly for workforce export.

2.3.3 Girls and Women's Participation (2006) in Formal TVET

Program	Male	Female	Total	Female %
Diploma-in-Engineering (govt.)	27854	13181	41035	32%
HSC (Business Management)	62496	33504	96000	34.9%
SSC (Vocational)	96084	36312	132360	27.43%

3. SCHOOL LEAVERS AND THEIR TRANSION TO WORK

The present structure of the formal Education system of Bangladesh is given in Article 2.1

There are 3 streams of education in Bangladesh, namely-

a. General Education
b. Madrasha Education and
c. Technical Vocation Education and Training (TVET)

(a) After grade 8 general educations are grouped into science, commerce and Humanity.
(b) TVET system is detailed in status of TVET system.
(c) Level of Madrasha education are Ebtedae, Dakhil, Alim, Fazil and Kamil

Among the 3 streams General education and Madrasha education usually do not provide any skills for the world of work.

In Bangladesh School leavers are students Leaving School from any stream, form any stage and from any group with completion or without completion of the prescribed courses for him or for them and they are entrants to the job market.

Young people's (School Leavers) transition to work has been affected by global trends over the past decade. This is due to increase of world population and shrinkage of traditional stable labor Market. With the exploitation of emerging technology, workplace has been changed. For new workplace, workforce with new skill and aptitude are required. So, for job entrants continuous pre-service trainings are required to keep them fit for changing job market. Impact of new technology on new workplace, Features of new workplace and future skills and Modalities of Education and training are briefly described below:

4. IMPACT OF NEW TECHNOLOGY

4.1 In the 21st century driving force of Global economy is Technology and it is a tool for development. Technological change can advance Human development by improving human health, nutrition, knowledge and by enabling communication, participation and economic growth.

If any form of development is empowering in the 21st century, it is the acquisition of knowledge and the creation of technological capability. Creation of technological knowledge is possible only through education and training.

4.2 Emerging technologies are making a significant impact on the way people work, produce goods and services.

Information technology and microelectronics, Technology of new materials, and Biotechnology are evolved through a combination of a number of disciplines and technological fields.

4.3 New technology is changing manufacturing and production process.

4.4 Developing countries have to develop ability to absorb technology rather than using cheap labor. So, workforce should be trained properly.

4.5 The creations of Information technology and microelectronics the internet and e-commence are underdoing dramatic change the relationship among manufacturers, suppliers, distributors and consumers.

5. NEW WORKPLACE AND FUTURE SKILLS.

5.1 Existing jobs are being lost but new jobs are being created.

It is seen from the foregoing discussion that as countries absorb and adapt new and emerging technologies, the manufacturing processes and supporting services such as logistics undergo rapid change. The traditional jobs and careers have little relevance. The emerging new work place requires not only those who possess new skills but also those with the right attitudes.

The products of new industries that use new technologies are less material and energy intensive but more knowledge and information intensive. As the production processes become more complex and integrated, workers at all levels will require a whole range of new skills. Consequently, the types and levels of skills of workers, irrespective of their level and category, and the patterns of deploying them are changing rapidly.

In short, existing jobs are being lost. but new jobs are being created rapidly and more frequently.

5.2 Future Skills

With the rapid change and advancement of technology, the life cycle of technical and vocational skills is diminishing. Also the job market puts an ever-greater premium on the ability to deal with people and information

Therefore, the future skills may consist of the following clusters of knowledge, skills and attitudes:

i. Breadth of knowledge and skills more than their depth
ii. Multi-skills in preference to mono-skills,
iii. Diagnostic and problem-solving skills,
iv. Computer skills to process information, and to perform related functions,
v. Ability to be highly flexible and adaptable to changes in the workplace,
vi. Behavioral and interpersonal skills related to team work, co-ordination, co-operation, and
vii. The ability to understand the mission of an organization and to work collectively towards its achievement.

The policies and strategies on technical and vocational education must keep up with these changes. Hence, in order to understand the issues involved in policy and strategy changes, it is useful to have an idea of the sources of supply of skills and the diversity and the complexity of the technical and vocational education sector. These are outlined in the section 7 and 8.

6. FEATURE OF TRAINING

6.1 The main features of training is that it manages to sound pro-market and pro-workers. It prepares people for the job of tomorrow, rather than subsidizing the job of yesterday.

6.2 New modalities for Education and training is that the 21st century will bring a radically different economy and society with profound implication for Technical and vocational education. TVET system must adapt to these key features, which include globalization, ever changing technological scenario, the revolution in ICT and the consequent rapid pace of social change. The knowledge based society, which these changes are brining offers exciting new modalities for training.

6.3 Intractable division is taking place based on technology not on ideology. So, training is a must to adapt new technology.

6.4 Life long learning will replace Life long employment due to technological changes. In the 21st century all type workers are obliged to adapt to changing jobs many times during their working lives.

6.5 Continuous training and career Advancement are the choice of New generation. So, Job entrants must be trained and re-trained to keep up to date knowledge and skill for new jobs.

7. THE MAIN SOURCES OF SUPPLY OF SKILLS IN BANGLADESH.

Technical education and vocational training is an integral part of education and training, system. In the Asian region including Bangladesh it is the main source of supply of skills. It is similar in the African and Latin American region. The components of the system in Bangladesh consists of

i. Generic and Traditional experiences
ii. Sector specific training institutes
iii. Apprenticeship
iv. Vocational training centers and institutes
v. Polytechnic institutes and colleges.

They are briefly described below

7.1 Generic and Traditional Job Skill :

From the very beginning of our civilization various types of artistical, handcraft and Industrial works were famous in Bangladesh. As for example works of Blacksmith, carpenters, weavers, potters, goldsmith, cobblers and Barbers. Muslin clothes were famous all over the world, specially in Europe. These types of works were confined only in a family or in a tribe and they transferred the skills generation to generation. Very often street children works in a workshop for 8 - 12 years under a master craftsman and become skilled workers. This type of long term job experience we can call “on-the- job” training. The above mentioned skilled workers cannot cope up very quickly with the change of workplace and technology. Because they have no basic education at all.

7.3 Sector specific training institute

In addition to the organizations and institutions, Government of Bangladesh has established training institutions that cater to the specific skills needs of different sectors. These institutes develop specialized skills of the relevant sectors such as Railway, telecommunication, Ports and shipping, clothing and Garments and Printing.

7.4 Apprenticeship

Apprenticeship is an accepted and effective way of producing skills for school leavers and entrants to the job market.

The employer is committed to provide training under apprenticeship ordinance 1962 and pay wages according to the stipulated norms. After training, a learner is usually employed by the employer i.e. training provider.

Apprenticeship is however still problematic as a means of molding life long learners because many apprentices are denied access to higher vocational and university education. Life long learning progrmme is very important for workers already in service to update skill.

Various government sectors also provide such type training for school leaver, job entrants.

7.5 Vocational training centres and institutes :

They offer Formal, Non-formal and Informal training of shorter duration from one-week to 2 years targeted at those with lower educational achievements. These courses are job specific and more focused on semi skilled occupations such as carpenter, Bricklayer and bar bender. The courses have a higher practical content and are employment oriented.

For 6 month to 2 years formal SSC(voc) courses Bangladesh Technical Education Board awards certificate.

For others Non-Formal training Courses of various duration respective training providing institutes award certificate.

For informal training in various workshops no certificates are awarded.

School leavers having vocational training tend to have a smother transition to first job and achieve more stable employment.

7.6 Polytechnic Institute and colleges

Technical Colleges and polytechnic offer formal Intuitional types of training to those with good secondary education. These institutes usually conduct time based courses of 4 years duration. In some cases course duration are of one or two or 3 years. The courses are generally skill or job specific such as Machinist, Metal fabricator and Automobile technician, The theoretical content of the courses is comparatively high. The students after completion of the courses are awarded Diploma in Engineering Certificate.

After completion of Diploma courses a large number of students go for higher education in technological universities, Some of them go for job market both in the country and outside the country. Some of the Diploma certificate holder in certain technology get job easily and some with certain technology get the job with difficulty. At an average within two years, most of the Institute leaver get

job. The leavers from this type institutes who fined it difficult to get desire job due to shortage of appropriate knowledge and skills need pre-service specific job oriented training.

A few of the diploma holder establish small and medium enterprises but they are very small in number. They are provided with soft loan from Grameen Bank. Most of them are successful as they have both strong practical and theoretical base. Entrepreneurship courses are increasingly encouraging them to establish small and medium enterprise for self employment.

Unsuccessful students of the Diploma course enters in the job market with some vocational training or without any training.

Persons already in services having such qualification must be re-trained to cope up with the technological changes and New Workplace.

8. THE DIVERSITY AND COMPLEXITY OF TECHNICAL AND VOCATIONAL EDUCATION

The diversity and complexity are the distinctive features of the technical and vocational education (TVE) sector as outlined above. There are a large number of enterprise -based, in-plant and other training facilities and programmes of the private sector companies, privately funded training institutions as well as those operated by the non-Governmental organizations (NGOs), and voluntary, religious and other bodies.

The Governments and other players of this sector use several training delivery modes, such as formal institutional training, apprenticeships, and informal training. These are designed to cater to the varying educational attainments and learning abilities of different target groups such as unemployed youth, rural women, school dropouts and adult workers. The duration of training and the delivery methodologies used depend on the levels of skill to be attained.

9. TRAINING POLICIES AND STRATEGIES: RATIONALE & OPTIONS FOR CHANGE

9.1 National Policy Framework

Development efforts are meant to reduce poverty. In order to do so, there is a requirement for improving skill of the country's increasing labor force in order to keep pace with global village and particularly in a situation when the bulk of the foreign exchange earnings dependent on remittance from the overseas workers.

The country need improving of managerial and technical skills in order to enhance growth of modern industries and agriculture for high productivity high wages and surplus for the future.

The future growth process of Bangladesh must generate employment(both self and wage/salaried) opportunities for the poorer sections of the population with increased productivity, hence better earnings so that, they can come out of poverty. Slow growth in formal sector and high unemployment particularly amongst the educated youths school leavers demand special attention. A summary' of the main points of those discussions is as follows:

- The nature of new technologies, their impact on manufacturing, supporting services and related functions,

- Job losses, new and rapidly changing jobs, aspirations and anxieties of the new entrants to and those already in the work place,
- The knowledge, skills and attitudes of workers needed for the rapidly changing work place,
- The diversity and complexity of the training sector and the varied sources of supply of skills, and
- The future skills and key issues of training

The above points will be helpful in policy formulation for technical and vocational education policies and successful transition policies from school to work in the right perspective.

According to National Strategy for Accelerated Poverty Reduction(2005) the strategies for generation of productive employment will therefore focus on:

- Strengthening role of public investment in employment creation through its direct and catalytic support to economic, physical and social infrastructure building, and fostering growth of private investment and labor market regulation which will support employment generation in two ways:

- Directly, by public works and enterprise development, contributing to poverty alleviation by providing work and income, and

- **Indirectly, by enhancing workers knowledge, skill and attitude by training and retraining considering followings.**

  a. Provision for demand driven policy for training.
  b. The Government must take new role. The government should not be the main provider of training and becomes its facilitator, coordinator, standard setter and regulator.
  c. Corporate sectors will play leading role in training.
  d. Provision of incentives to the training providing corporate sector for school leavers - job entrants.
  e. The training institutions will provide training based on broad based curriculum and they must be opened to the corporate sector to train and upgrade their worker by better utilization of physical facilities.
  f. Provision of follow up support for successful trainees.
  g. Inducing partnership between public and private sector for providing training considering mutual benefits.

THE GOB STRATEGIES AND THE FUTURE PLANE

Evaluating the progress made so far in respect of human resource development for generating employment, specially, with respect to Technical and Vocational Education and Training (TVET) the National Strategy for Accelerated Poverty Reduction (2005) provided following policy agenda for attaining strategic goal.

Strategic Goal	Policy Agenda (FY05-07)
1. Introduce and expand TVET for adolescents, adults male and female and make provision for TVET after class VI, VII, and equivalent grades.	• Design and introduce in collaboration with NGOs and entrepreneurs, modular courses in income generating and self employment skills linked to local market prospects for underprivileged groups including girls and women; • Explore ways of supporting skill development in the informal sector; • Improve coordination and develop a common policy and regulator framework among various public and private sector (including NGOs) providers of VTE; • Formalize information sector by providing GOB support through technical, financial and infrastructure assistance; • Review VTE curriculum and courses of VTE providers
2. Increase female participation in Vocational, technical, higher and professional.	• Introduce stipend program for female VTE students; • introduce measures to attract larger female entrance into under represented fields; • Adopt measures and target for teaching and management positions in vocational, technical, tertiary and professional education.
3. Provide market-related effective education linked to the industrial sector both in the domestic and international market.	• Introduction of training providers agreements with industries, companies and NGOs. • Involve the private sector and NGOs in designing the curriculum for TVET.
4. Improve the percentage of vocational and technical graduates obtaining employment both in me domestic and international markets.	• Update equipment and update curriculum of TVET; • Strengthen teacher's training in TVET.

9.2 Policy issues for Developing pathways from education to working life (Regional and international aspects).

A major concern in several countries has been the transition from initial education and training to work. Achieving stable employment combined with providing skills training are the priorities.

Work-linked training, particularly apprenticeship, encourages movement between school to work. Apprenticeship is however still problematic as a means of molding lifelong learners, There is a growing realization in the countries concerned that the possibilities for progression need to be opened.

For adult learners, pathways are facilitated by the diversification of tertiary and adult education together with a unified qualification system.

Open and coherent pathways of initial education and training constitute a basis for effective systems of lifelong learning. The following elements of well organised pathways can be identified:

- provision of vocational as well as general education pathways at the post-compulsory stage;
- work experience as part of post-compulsory education for as many young people as possible;
- access to tertiary education from all general as well as vocational secondary pathways;
- modularised systems of qualification that allow to combine courses or units from different pathways of education;
- equivalence arrangements between general and vocational education certificates;
- double qualifying pathways which lead to both secondary and vocational qualification;
- availability of diversified and interconnected pathways of tertiary education, open to young as well as adult learners.

Countries so far have developed these features in part, depending on their individual education systems. The questions remains open to which extent these different approaches could or should be combined.

10. CONCLUSIONS AND RECOMMENDATIONS

The combined forces of globalization and emerging technologies are making radical changes to the work place. New skills, or the future skills are those that combine the knowledge skills and attitudes required for the changing workplace.
The conclusions and recommendations arising out of the above discussions are summarized below:

* *The training systems are the main source of supply of skills. Therefore the systems should be restructured and reformed to meet the demands for future skills of job entrants. The training institutions, must offer broad based courses for diploma and higher level and subject-specific or job-specific ones for short duration certificate courses. Behavioral and interpersonal skill related to teamwork should be woven into all courses.*

* *The governments must assume a new role in training. The governments must formulate occupational skill standards, develop curricula guidelines and lay down testing and certification procedures. Training provider should be encouraged to conform to national standards of training.*

* *The recent experience of Japan shows that 'life Long Training' is replacing 'Life Long Employment'. People particularly the young, look for mobility. They prefer new skills to monitory gains. And training opportunities that prepare them for technology oriented challenging jobs attracts them. The companies must, therefore, offer continuous training opportunities to attract new comers.*

* *The highest priority of the corporate sector today is to increase productivity and remain competitive in a technology dominated global market. Therefore, it is the corporate sector that must take the lead in developing skills needed to absorb new and emerging technologies through training.*

* *The corporate sector should be given financial incentives to train who enter the work place as well as those already in it.*

* *Innovative strategies should be developed to further encourage the corporate sector to invest in training. It requires a partnership between the state and corporate sectors and such partnerships could yield mutual benefits.*

* *Training alone is not enough. There must be follow up support. For this purpose, the government training authorities and institutions must assign a full-time official who will have the responsibility and authority to assist trainees to access credit and the necessary technical assistance and advice to embark on gainful employment projects.*

* *Entrepreneurial courses should be encouraged and strengthen in education and training program especially in secondary education program for self employment.*

* *Apprenticeship courses should be expanded and strengthen for school leavers - job entrants.*

* *Co-ordination among OECD countries and others for training and Retraining of workers should be given due priority. Best practice of other countries in respect of training for school leavers, the job entrants should be accepted and implemented considering economical and social condition of the concerned country.*

Finally, it must be said that the ideas and proposals put forward in this paper are pragmatic and feasible. Obviously, these ideas have to be adapted to suit the realities of Bangladesh and the south-east Asian and Asia pacific region.

Cambodia

I BACKGROUND

The skills of the labour force are an important contribution to the economic and social development of the Kingdom of Cambodia. There is a need for continuous expansion and improvement in workforce skills to increase the rate of economic growth. At this time, the Rectangle Strategy is an approved national economic development framework and a five-year National Strategic Development Plan 2006-2010 (NSDP) is in place. The National Training Board (NTB) has the mandate to respond to the NSDP with a National TVET Development Plan (NTDP). The Directorate of Technical and Vocational Education and Training (DTVET) are required to manage the national implementation of this strategy using the National Training Fund (NTF) as a financial mechanism.

It is clear that the greatest and quickest gains in poverty alleviation and growth will be possible in rural areas where most of the poor live. The National Strategic Development Plan (NSDP) "**will therefore direct 60% of resources to rural areas with increased attention to productive activities like agriculture, rural development and to health and education to increases and enhance human capital and better contribute to overall development"** The informal economic sector accounts for 90% of employment. The formal sector creates approximately 50,000 new jobs are created each year while the workforce increases by 300,000.

Poverty reduction is at the heart of the economic strategy and the development of skills that can be used in rural Cambodia is a main pillar of poverty reduction. The direction for TVET is clear.

II. NATIONAL TVET POLICY AND STRATEGY

The National Strategic Development Plan, 2006-2010 identifies poverty reduction as a primary national goal. TVET is recognised as an important contributor to poverty reduction as it improves farm productivity and rural services as well as improving small enterprise. By contributing to Enterprise growth, TVET can create new employment. Given the extent of poverty, the supply of skills training and the quality of many of the programs is inadequate. The expansion of training must also include non-institutional learning, as building sufficient training facilities is not possible even if the majority of the rural poor could leave their farms for extended training.

To assure a match between training and demand for skills, decisions about training need to be made as closely as possible to those who will benefit from the training. Central planning cannot respond to local market opportunities or the needs of small communities. The NSDP indicates that decentralization of decision-making will improve the quality and effectiveness of actions to reduce poverty through economic opportunity.

The demand for training is not consistent across all sectors. Large Enterprise meets most of its own training needs at the TVET level with some demands for graduate engineers. There is little current demand from manufacturing for technicians although this may change over time. The primary demand is seen as coming from communities for basic skills to improve family income. A review of opportunity over the planning period suggests that a focus on demand for skills from rural communes

will not only support the poverty reduction direction given by the NSDP but will orient the supply of skills towards community responsive.

Over time, more detailed labour market projections at the TVET level will be produced and these will enhance the quality of local decision making with stronger data. This data will also allow the National Training Board (NTB) to set specific targets across its mandate. Over time, Enterprise will demand higher-level skills in greater number and sector council representative of enterprise will be required. At this time, it makes sense to provide the best information possible to communes on local market opportunities perhaps even to the Provincial levels.

NTB sees the role of government in TVET as ensuring that the demand for skills from enterprise, communities and individuals is matched with a supply of the required training to build competencies to an assured quality level. It must also ensure access to training for women, minority groups and the disadvantaged. It should play a coordinating role to ensure that the public training provided by all government ministries is promoted in rural areas that have skills demands.

However Government by itself cannot provide or fund the provision of the majority of this training. Enterprise and private sector TVET trainers will be increasingly important as training providers. Public-Private Partnerships must play a larger role in TVET. Encouraging an environment that supports partnerships in provision will be a priority of the NTB.

In this NTDP, NTB has identified 14 policy priorities to support the NSDP, to give a direction to TVET and to form the base of a National Skills Development Plan. These priorities will be updated annually to ensure that the provision of TVET grows to match demand and that poverty reduction and economic competitiveness remains central objectives.

1 Poverty Reduction

"If growth continues to remain urban focussed, rural poverty will remain high… A major challenge of the NSDP is, therefore, to adopt deliberate, focussed and targeted strategies and actions to accelerate poverty reduction in rural areas."

"Enhancement of the agriculture sector is the key to poverty reduction and would also contribute enormously to real GDP and macro economic growth"

Policy: Target TVET programs at poverty reduction by developing for the poorest communes a program that will provide basic income generating skills based on local needs. Poverty reduction is a priority of the Government policies. TVET can make a major contribution in poverty reduction by giving basic income earning skills to the poor. NTF will target this priority.

Strategy: In pilot, we selected the 210 poorest Communes in 7 representative provinces. Train Provincial Training Center (PTC) staffs in participative community development. PTC staff will assist each Commune to write a 3-year training plan to bring skills that will help it be more economically successful. Provide funding for the training and find trainers who can give most of the training in the Commune. Use the 7 Provinces and their PTCs as models to train the remaining 17 Provinces.

2 Decentralization

"A strategic Framework for Decentralization and De-concentration was approved in June 2005….the framework will increasing devolve responsibilities and resources…to Provincial, district and commune levels"

Policy: Selecting TVET training to be offered is the best done in Communes where the training will take place and where local markets and village skills are understood. It is the government's policy to move decision making as close as possible to those who will be affected by the decision. Government's roles are to create the longer term economic strategy, which gives guidance to these decisions, to expand access to a quality, assured system and to provide funding within its resources.

At this time, the greatest demand for government supported skills training comes from rural and urban Communes. Small family enterprises are the primary employer and without a very refined labour market information model, data on the needs of these micro enterprises is available only on a district and then Commune level. Training to improve family income must be linked to markets for products or services that grow from the training. Markets are local and decision on market demand is local.

Strategy: Strengthen decentralization, the skills, knowledge and abilities in the Directorate General of TVET, among the PTC Directors, Deputy Directors and Community Development Specialists (CDS) will be expanded through training. National Technical Training Institute (NTTI) will be strengthened to provide and sustain this training.

The Provincial Training Boards (PTBs) under the NTB will be further clarified as linking local economic development to training opportunities in the province. Training is provided by many Ministries and is fragmented and uncoordinated from a Commune perspective. PTB have a much better chance of bringing together a single listing of planned training for Commune information.

Every effort will be made to build provincial teams based on strengthened PTB. These will develop provincial training strategies that meet economic plans and will expand training and micro credit access wherever possible. The PTB may advise the PTC with regard to provincial training needs and the PTC may advise the PTB on necessary steps to strengthen skills development in the province.

PTB will develop an inventory of all training available to communes from the provincial offices of Ministries with a training mandate (Agriculture, Environment, Culture etc.) The PTC Director will be invited to PTB meetings to facilitate this exchange. With the assistance of PTC based CDS. Communes will determine their own training needs to improve family income.

3 Community and Enterprise Based Training

"…as such, each commune, district and province would prioritise their own needs and try to achieve those using funds available to them…from line Ministries"

"…establish vocational and other skills training networks…to respond to labour market needs"

Policy: Support short term, non-institutional courses determined by the communes, delivered on-site using existing facilities and provided by NGOs with experience or existing involvement in the Commune. The 39 PTCs will become Provincial coordinators of TVET and concentrate more on Commune based training and less on PTC based training. They will assist in expanding the availability of TVET through private sector trainers in each Province.

Education systems are cantered on buildings and schools. TVET is not necessarily cantered in this way. Poor villagers work hard and it is very difficult to leave farming for job training. Training for villagers must be short, often only part of a day, as farm work must be done every day. Training should be close to village work sites to reduce travel cost. Institutionally based residential learning models are expensive and not always accessible to those who can most quickly apply training.

Strategy: Provide funding for Commune and Enterprise based training to be assisted by PTC staffs.

4 Out of School Youth

Policy: In the poorest Communes**,** target TVET at reducing the number of unemployed, out of school youth. Develop from the 7 Pilots a national program to assist youth in gaining basic employment and self-employment skills applicable to a rural setting.

Unemployment of out of school youth contributes to increasing rural poverty, urban migration and social instability. Unemployed youth lose hope and energy and become burdens on their families. Training can give skills for employment or self-employment and also build self-confidence.

Strategy: Target Commune based training at unemployed youth ensuring a gender balance. Use family based and informal apprenticeship and very brief training inputs to involve as many trainees as possible. It is best to identify skills that improve productivity in farming, or lead to self or local employment.

5 Self Employment

Policy: Commune based skills training will include training in *micro enterprise management*. Other than improved agriculture productivity, *self-employment* will be the primary opportunity for increasing family income. The experience and skills of existing community based training organizations will be useful in the design and delivery of this training.

Strategy: A list of self-employment ideas will be taken to communes**.** An assessment of local market opportunities will be made. Communes will be advised to use *enhanced farm productivity, self-employment and family based employment as* the planned outcome of most training in the training plan.

6 Micro Credit

Policy: To be effective, training for *self-employment* must be linked to provision of ***micro credit***. Communes and individuals require information on micro credit providers and costs during any training given.

Strategy: PTCs will assist each PTB to develop a Provincial Association of **Micro Credit** Providers who commit to a statement of ethical behaviour, a simplified process to assist clients and a range of interest rates. PTCs will give this list to Commune Councils during the training plan design process and invite member Micro Credit providers to present information to training participants in voucher based training. PTCs will ensure that all NTF supported trainees receive training in micro credit.

7 Small Enterprise

"SMEs play a vital role in promoting economic development and creating sustainable employment and incomes closer to the people. They make up 99% of all enterprises and almost half of all employment in the private sector"[1]

Policy: TVET will develop a program to assist small, rural enterprise to expand training through informal apprenticeship programs. The program will assist in introducing appropriate technology where this can expand the opportunities for the small enterprise. Vouchers and ***micro credit*** may be a part of this program.

TVET will assist small businesses to develop training strategies for their employees that can be supported by training vouchers if approved by the PTB.

Strategy: CDS in each PTC will be trained to assist *small enterprise* in developing informal apprenticeship programs and in developing training plans for application for vouchers. A proportion of the Voucher System budget will be allocated to this activity (current estimate, 30%). NTF funds can also support training in these areas.

NTTI will develop training competency in *small enterprise development* and ensure that all trainee instructors receive instruction in this area.

8 Public–Private Partnership, Financing TVET

Policy: beneficiaries will fund TVET. These include, Government, trainees, Enterprise and Communities.

International experience demonstrates that financing must be a partnership of the State, Enterprise, Communities and Trainees. *Those who get benefit must pays*. Beneficiary financing of TVET is the main hope of developing and maintaining a system that meets real needs by responding to real demands for skills. To achieve this, a public private partnership is required.

Stakeholders must be involved in the design, decision-making and often the delivery of TVET if they are expected to support the program. The decentralization policy will engage Provinces and communes more directly and as Provincial revenues increase in the future, support for TVET may be requested.

Strategy: Ask *Commune Councils to contribute to training costs* in the Voucher System. It is recognised that in many cases no contribution is possible but a start must be made in attitude change from entitlement to participation.

Encourage a small contribution from trainees. Experience shows that even a small contribution greatly increases trainees' commitment.

Set up Enterprise Sector Councils and begin the process of inviting financial participation in sector level training.

Establish an Enterprise Advisory Council to NTB, lead by Enterprise and with primarily Enterprise membership to provide private sector input to the NTB.

Request that small enterprise contribute to training costs as part of the Enterprise Voucher System.

PTCs will be encouraged to start production units and service units to give real employment experience to students and to generate revenue.

9 Public Private Partnership: Enterprise Involvement in TVET

"promote business membership organizations and strengthen their advocacy capacity"

Policy: Increase the participation of Enterprise in the *design, decision-making and provision* of TVET.

Enterprise must set the standards and training outcomes for TVET beyond the village skills level. An effective system will even include village skills in a national skills ladder. Enterprise must also support part of the cost of public TVET as a beneficiary. Although not evident in the short term, Enterprise will depend on an expanding TVET system in the medium term and early steps are needed to engage them in investment in the TVET process. In the future, Enterprise can develop and operate sectoral technical institutes from which Government can buy training.

Strategy: Involve Enterprise in TVET through membership in the NTB, the establishment of Advisory Enterprise Council, and the inclusion of Enterprise in Provincial Training Boards.

Reduce recurrent investment in Technical Institutes until Enterprise creates demand for graduates at the technician level and then develop PPP technical Institutes for each Enterprise Sector, which they finance, and control within NTB policy.

10 Public-Private Partnership: Expanding the Provision of TVET

Policy: Expand the Provision of TVET by private sector training providers. Concentrate on overall provision of TVET not on Government provision.

Government's central role in TVET is to assure the development of an overall system, assure access for all, ensure availability of a skilled workforce to meet economic needs and assure quality of provision. To achieve this, private sector providers and Enterprise itself need incentives to enter the training market in response to the demand for skills. Tertiary TVET will be *primarily by private sector provision*.

Strategy: the Commune/Enterprise Voucher System will purchase Training from qualified private sector training providers by the NTF and. Each PTC will develop list of private sector

and NGO training providers in the Province. These will be asked to register with the Provincial Branch of the National Association of Training Providers (NATP) as the first step in qualifying to provide training in the voucher program. The list of training providers, the training they can provide course length and course cost will be given to Commune Councils to assist training planning.

11 Assuring Quality of TVET Provision

Policy: DTVET has the central responsibility of *ensuring the Quality of TVET provision*. Training providers must meet and continue to meet an agreed standard to be eligible for access to any Government training funds.

Strategy: The establishment of a National Association of Training Providers (NATP) built on provincial branches; with agreed financial and ethical standards is an early step. Development of training standards in core skills area, which are audited by government, is another important step. Locating the secretariat for NATP at NTTI will assure continuity and sustainability of the quality assurance process. Training Vouchers can only be used at approved training providers who are members of the NATP provincial office. Only NATP members are eligible for NTF support of training.

12 Quality of TVET Leadership, Management and Coordination

Policy: Improve the quality and consistency of TVET leadership, management and administration in the public and private sector.

Strategy: Ensure transfer of capacity building training by consultants and others to NTTI so that new inputs from each project are not lost when the consultants from that project leave, but are supported by a continuing staff development plan for all DTVET staff (including PTCs) by a professional body of trainers at NTTI.

Expand the role of NTTI to include a basic Technical Institute Unit and a model PTC to act as practical training and application opportunities for new technical teachers and for curriculum validation.

13 Labour Market Information

" develop a labour data base and statistical system with disaggregated data by gender, disabilities and other relevant social factors"

Policy: NTB is mandated to oversee the national labour market in the TVET area**.** Balancing the market for skills requires information on both the demand and supply of skills. The further development of a labour market information system is a priority.

Strategy: Involve PTCs and PTBs in gathering basic labour market information in each province. Involve Enterprise Councils in providing labour market demand information. Gather available information from other Ministries. Include market opportunity information when possible.

14 Competency Standards

Policy: National skills standards will be established and a National competency assessment system put in place.

In order to assure quality of training, there must be enterprise validated standards for each employment cluster. Standards exist in neighbouring countries and over time, these can be reviewed by enterprise and validated for Cambodia.

Strategy: Use existing competency standards and where needed, acquire international competency standards from other Asian countries and validate them with Enterprise Councils. Work closely with ILO and ASEAN in this and in the development of a regional national qualification framework. .

III. CONCLUSION

Despite the apparently insurmountable problems facing the effective development and implementation of the TVET programs in Cambodia, there are prospects and opportunities that could easily be exploited. Political and economic restructuring is mandatory; in Cambodia has an opportunity under the current situation to plan and restructure the political and economic systems that can favor wide and popular participation by citizens and also effect policies that will create an enabling environment for economic growth;

- ⇓ The TVET system can and should play an even more dynamic role in improving employability of the downtrodden and marginalized segments of society by imparting to them the life skills to enable them to find jobs and support their families;
- ⇓ The TVET stream must be integrated in the overall education system so that there is horizontal as well as vertical mobility making the TVET stream more attractive and allowing those who drop-out for various reasons to get into the TVET system upgrade their skills and leave the system and come back when convenient and affordable;
- ⇓ All the formal and non-formal training centres - if equipped well, funded well, and the staff are trained properly - can function as skills testing centres, reducing the burden on employers to test the level of skill of the applying workers and technicians;
- ⇓ Provincial training centres can and should be established in the provinces where no Provincial Training Centre (PTC) exists and these new training centres should have multipurpose workshops, equipment and trained staff so that these new PTCs with all the existing PTCs will form a national network of training cum skills testing centres;
- ⇓ As part of public/private partnership, those private training centres that have the capability of testing the skills levels in the various skill areas must be recognised as skills testing centres; the passage of the skills development sub-decree is of prime importance;
- ⇓ The National Training Board can and should play the role of the apex policy-making body in the TVET sector, since it has the experience to play this role, and since it has representation of all the Ministries involved in vocational training;
- ⇓ NTF should also be able to play an even more effective role if this fund can be replenished regularly through Government and non-governmental contributions;
- ⇓ Improved funding can make the courses offered by the training institutions even more responsive to changing societal demands;

There is a need to look anew into various forms of technical vocational education and training to ensure that TVET is effectively relevant and an integral aspect of the general school curriculum. The network of vocational training institutions and programs are developed to ensure a continuous supply of critical middle level manpower for national development.

TVET must be liberal education, innovations, introduction of entrepreneurship education and the link of TVET programs to privates sector could help TVET graduates ease into employment because of its practical orientation toward solving problems. TVET is a good agent for improving a nation's technological literacy and capability.

TVET must be effective and efficiency; it must be a shared responsibility between the school and the work place. Linkages with enterprises, businesses and industries are critical. In brief, all stakeholders (students, parents, teachers, employers and planners) must work as a team to solve the problems following the socio-economic development.

China

- **Introduction**

The rapid development of China's economy has been benefiting to most of Chinese people. Double-digit rise of GDP every year leads China to having US$1 trillion State Foreign Exchange Reserves. The living standard of Chinese people has been rising remarkably.

It is also clear that the huge population burden results in a very big job competition. The city rate of unemployment, published by Chinese government, is 4.6%. But authority estimates that adding the rural area and other reasons, the total rate of unemployment may be around 20%. If you find a very crowded hall on the street in China today, that may be job fair. Chinese government has been making a series of policies to reduce the pressure of employment. On one hand, trying the best to create new working positions, on the other hand, shorten the gap between school leavers' competence and employers' requirement. In addition, self-employment for school /college leavers is also encouraged in policy like tax. But substantially, the superfluous manpower is structuralized. The skilled workers and operational staffs are still in need. So an unprecedented advocation of developing technical and vocational education has been put forward by central government. Our Premier Wen Jiabao chaired several meetings to discuss the acceleration of the development of TVE in China. During the period of 2006-2010, central government will spend more than 14 billion RMB on TVE. TVE has been treated as an efficient pathway for the transition of STW for school/college leavers and meeting the needs of labor market.

- **Technical and vocational education in China**

The system of vocational education consists of education in vocational schools and vocational training. It is provided at three levels: junior secondary, senior secondary and tertiary.

Junior vocational education refers to the vocational and technical education after primary school education and is a part of the 9-year compulsory education. The students in this stage should be graduated pupils from primary school or the youth with equivalent cultural knowledge and its schooling lasts 3 to 4 years. To meet the needs of labor forces for the development of rural economy, junior vocational schools are mainly located in rural areas where the economy is less developed.

The secondary level mainly refers to the vocational education in senior high school stage. Named as specialized secondary schools, skill workers schools and vocational high schools, and as the mainstay of vocational education in China, secondary vocational education plays a guiding role in training manpower with practical skills at primary and secondary levels of various types. By the end of 2005, there had been 14466 secondary vocational schools in China. The enrollment number of these schools in 2005 was 6.6million and 16 million students have been studying in these schools.

The postsecondary education system in China is huge and complicated. For secondary school leavers, they can choose 4-year universities or colleges through college entrance examination (CEE) to complete their academic education. Another path is to go to 3 or 2 - year colleges to complete their TVE. For adults, there are some adult colleges which provide diploma teaching in part-time. Self-learning

examination and television - university are also favorable ways to the learners, especially to adults. Comparing with adult colleges, Self-learning examination and TV-university, full time universities and colleges have a bigger proportion in both school number and student number. The vocational higher education is the 3 or 2 year colleges which provide diploma for secondary school leavers in full time. Since 1999, China has accelerated its higher education development by enlarging the numbers of freshmen for higher college entrance gross rate. By 2005, the number of Chinese universities and college students is 2 times more than that in 1999. Anatomizing the rise of Chinese higher education, it is no doubt that higher vocational education supports it mainly. By the end of 2005, there had been 1091 vocational colleges in China, 60.9% of total universities and colleges and 53.1% freshmen of total.

Vocational training of various forms has been playing a more and more important role in vocational education. At present, vocational training is mainly conducted and managed by the departments of education and labor, but enterprises are encouraged to provide vocational training for its own employees. By 2005, short-term training was proved for 300 million person-time all over China.

- **Reform on TVE**

With the development of Vocational education in China, people believe that TVE is different from our traditional academic education, but in the beginning of its childhood, we have to push it on by imitating the model of academic education. With China's policy of reform and opening to the outside world, TVE stakeholders got the chance to learn the models from other countries. Dual system from Germany was first introduced to China. The combination of school learning and company apprenticeship was thought as the "secret weapon" of its economy prosperity. Many joint schools were consequently established in China. Decades later, Chinese are aware of the obstacles of German experience. Admirations of techniques and completed legal system for encouraging the involvement of companies have very strong German culture background. In addition, the overemphasized skills make the student rather rule following than innovative. The most influenced pattern in China's TVE is DACUM-CBE from Canada. In the late 1990s, a competency based education system was imported from BC Canada. The analysis of duty-task in real working position was treated as the closest way to fulfill the needs of industry or enterprise. Even today, many TVE colleges are still using the principles to develop their curriculum. But it is believed that the success of DACUM-CBE needs the involvement of industry. In China, it's hard to find the authoritative organization or expertise to be the representative. A lot of enterprises in the industry have very different needs. Meanwhile, Chinese industries are always hesitated to involve in school business or just "show a pose". There are no strict laws to govern and encourage such cooperation. So DACUM-CBE can't be copied in China although some philosophies are revelatory. Besides, many other patterns from all over the world are also introduced to conduct a pilot study, such as MES from ILO, community colleges from US, TAFE from Australia. But TVE in China needs not only to learn from other countries but also to fit the new pattern into its own culture and society, otherwise, it will lose its roots. Based on the awareness above, we Chinese TVE practicers have been trying to

integrate the skill training with Chinese culture and education. It's not easy because of the conflicts between traditional culture and modern technology, but it's possible especially for the majors of economics and business. Since the main characters of such majors are mental skill rather than physical skill, social and cultural basis are needed. More or less, the success in the fields of economy and business depends on the culture background.

Integration of foreign pattern and Chinese situation, TVE in China has been implementing some of methods to upgrade its quality and feature.

- Cooperative education. In various ways of setting up relationship with industries. It is treated as the only way of TVE reform in China.
- Competency based Education. Analysis of occupational requirement, making criteria for curriculum, adopting learning-by doing pedagogy, TVE reform in its teaching methods has been encouraged to approach the needs of industry rather than academic routine.
- Culture heritage learning. Traditionally, people believed that TVE is just working skill education. But when we scan the requirement of job-needs, most of employers want to list the moral character of the candidates as the top of their qualifications. The basic points of view from Confucius' work as Ren, Yi, Li, Zhi,Xin (similar meanings are Benevolence, Justice, Etiquette, Wisdom, Honesty) have been infiltrated through TVE as the necessary needs of upcoming work.

- **Conclusion**

TVE in China is commonly thought as one of the best ways to equip the school/college leavers for fulfilling the needs of society. On the reform of TVE, employment-oriented education needs a pathway of collaboration with industry, competency based education and training as well as its own culture fostering. To develop TVE has become a strategic option to Chinese government, and the best choice for the support of their next economic jump.

Fiji

Secondary education in the Pacific is largely academic in orientation, catering mainly for students who aspire to white-collar jobs, or who seek the credentials for admission to university. As a result more and more students are being pushed out of the school system without acquiring the relevant knowledge and skills for paid employment, or the life and work skills required for self-sufficiency, self-reliance and self-employment.

Pacific youth have been labelled an economic, social and political 'time bomb' due to high levels of unemployment/underemployment amongst this group (PIFS: 2003:v). A lack of appropriate education that links realistically into further training and or employment/self-employment opportunities in the formal or informal sectors, has been identified as a key factor in the so-called Pacific youth problem today. Another contributing factor to high unemployment is that the relatively small formal sectors of Pacific economies offer few employment opportunities and cater for only a small percentage of school leavers. The increasing globalisation of trade and labour markets and rapidly changing technologies also impact extensively upon the knowledge and skills needed for employment.

A major concern for Pacific governments, then, is that too many students are leaving high school with inadequate occupational and life skills to succeed in the workplace or in post-secondary vocational training. Numerous studies reveal that, upon high school graduation, many students who are not college-bound are neither prepared for nor connected to employment opportunities. Ministers of Education also have noted the high proportion of students in their education systems who do not aspire to carry on their education through to formal tertiary education, and whose learning needs are not yet adequately catered for.

While there has been some improvement made in most Forum Island Countries (FICs), the data show that large numbers of male and female school leavers have insufficient knowledge, skills, attitudes and confidence to progress to further training, to secure a job, or to make a living for themselves. The effective preparation of students for life and work is beginning to receive more attention now than before. School-to-work transition initiatives offer a promising approach to this issue and require major school restructuring. School-to-work programs provide ways for students to transit successfully into the economy, either through paid or self employment. The provision of TVET at the secondary school level also is receiving increasing attention.

This paper will highlight issues and concerns of Pacific Island governments as they try to put in place mechanisms and systems to facilitate effective transitions/pathways between school and TVET, school and the world of work, and between school and life. The outcome of the recent PRIDE Project regional workshop on *The role of TVET in Pacific secondary schools: New Visions, New Pathways* that was held in the Republic of Palau, 15 – 22 November 2006, will be discussed here. This paper also will highlight the Palau school-to-work transition model, which is one of the success stories of the Pacific region.

The Pacific Region

This paper focuses only on those countries in the region that are politically independent and therefore able to participate in the dominant political and economic policy grouping in the Pacific, the Pacific Islands Forum Secretariat (PIFS): Cook Islands; Federated States of

Micronesia (FSM); Fiji; Kiribati; Nauru; Niue; Palau; Papua New Guinea (PNG); Republic of the Marshall Islands (RMI); Samoa; Solomon Islands; Tonga; Tuvalu and Vanuatu. To this list should be added Tokelau, which is in the process of achieving self-government in free association with New Zealand (Teasdale, Tokai and Puamau 2004:1).

These countries are spread across some 10,000 kilometres from east to west and 5,000 kilometres from north to south, with a combined Economic Exclusive Zone of close to 20 million square kilometres. In contrast, the total land area is just over 500,000 km², of which PNG accounts for 88 per cent, and Fiji, Solomon Islands and Vanuatu for 11 per cent, while the other 10 countries make up the remaining one per cent.

The population of these fifteen states is close to eight million people. Of this number, 5.6 million are in PNG. At the other end of the scale are Niue and Tokelau, with populations below 2,000 people. The majority of people in each country are indigenous[1]. The countries of the Pacific region can be categorised into three sub-regions, each distinct with its own ethnic groups, namely Melanesia [Fiji, PNG, Solomon Islands and Vanuatu], Polynesia [Cook Islands, Niue, Samoa, Tonga, Tuvalu and Tokelau[2]] and Micronesia [FSM, Kiribati, RMI, Nauru and Palau].

The countries differ widely in terms of their history and ethnic make up, and exhibit an unparalleled diversity of culture and language as well as great variation in physical and political characteristics. The Pacific is the most linguistically complex region in the world with one fifth of the world's languages. More than 1,000 distinct languages are spoken by less than 8 million, with multilingualism and bilingualism the norm (Puamau, 2005: 3).

Most economies are small and remote from markets. They rely on imports for basic commodities. Most have a narrow base of exports such as agriculture products, fish, tourism, sugar and labour, which are the mainstays of most Pacific economies. Remittances from relatives living and working abroad are a significant revenue earner for many Pacific nations. These small Pacific states have many challenges in common including large public sectors, poorly developed private sectors, large informal sectors, high public expenditures, and problems of finance, aid dependency, patronage and nepotism (Puamau, 2005: 3).

The geography of the Pacific nations makes administration, communication and the provision of services complicated and expensive. The islands are also very vulnerable to natural disasters such as cyclones, hurricanes, droughts, tidal waves, and in some cases, volcanic eruptions. The smaller countries such as Nauru, Kiribati and Tuvalu are particularly susceptible to rising sea level. In most cases, Pacific countries rely heavily on aid from Australia, New Zealand, Japan, the European Union (EU) and multilateral organisations.

Different historical influences and cultural factors affect education delivery throughout the Pacific region today, including, for example, the recent autonomy of RMI, Palau, and FSM from a heavily subsidised American system, compared to the education structure in Fiji which is modeled on the British system. Vanuatu has a dual French and English education system, while Cook Islands, Niue and Tokelau have a continuing close relationship with New Zealand. FSM has the additional constraint of administering its four autonomous states of

[1] Except Fiji where a little less than half of the population is Indo-Fijian (Indians).
[2] Tokelau is not a member of the ACP States, but has been included because it makes up the 15 countries served by the PRIDE Project.

Yap, Pohnpei, Chuuk and Kosrae, each of which has its own distinct cultures, languages and traditions.

The Forum Basic Education Action Plan (FBEAP)

At the Pacific Forum meeting in Palau in November 1999 the heads of government discussed the human resource needs of the Pacific, and the failure of many education systems to satisfy them. Schools and their curricula were criticised for not providing relevant life and work skills, for being too focused on academic success in external examinations, and for not graduating young people who could become productive members of their own villages or urban communities. Accordingly the Forum directed its secretariat to bring together the fourteen Ministers for Education of the region, asking them to deal with its concerns.

The Ministers met eighteen months later in Auckland, deliberating on what they referred to as 'basic education', which they defined as all education for children and youth, both formal and non-formal, except for higher education. The Ministers have since met regularly under the aegis of the Pacific Islands Forum Secretariat (PIFS), and have included the Minister from Tokelau in their meetings. One of their major achievements has been the development of the *Forum Basic Education Action Plan* (FBEAP) (PIFS, 2001), a short but important manifesto setting out visions, goals and strategies for education in the Pacific. It is a working document that is revisited and amended each time the Ministers meet. Its vision is clear:

> Basic education as the fundamental building block for society should engender the broader life skills that lead to social cohesion and provide the foundations for vocational callings, higher education and lifelong learning. These when combined with enhanced employment opportunities create a higher level of personal and societal security and development.
>
> Forum members recognized that development of basic education takes place in the context of commitments to the world community and meeting the new demands of the global economy, which should be balanced with the enhancement of their own distinctive Pacific values, morals, social, political, economic and cultural heritages, and reflect the Pacific's unique geographical context (PIFS, 2001: 1-2).

The goal of FBEAP set by the Ministers is:

> To achieve universal and equitable educational participation and achievement. To ensure access and equity and improve quality of outcomes (PIFS, 2001: 2).

The Forum Education Ministers further committed themselves to the following specific strategies:

- The promotion of different forms of secondary and vocational education;
- A review of the curricula of training centres and non-formal education programs to match skills taught (outcomes) with the requirements for employment and livelihood in traditional subsistence economies;
- Development of non-formal education and work-based programs in cooperation with civil society and the private sector, and;
- Promotion of the role of civil society in providing non-formal skills training (PIFS, 2001: 2)

The commitment stated above is a clear response to the concerns of Forum leaders that Pacific schools and curricula are irrelevant, that they do not meet the needs of all students, that they are too focused on academic success, and are not providing relevant life and work skills to young people who cannot secure white-collar jobs or proceed to academic studies at universities. In addition, the education systems in the Pacific are not preparing young people to become useful and productive members of their own villages or urban communities.

Because the current curricula in most Pacific countries are irrelevant and not meeting the needs of all students, the Ministers recognized that TVET must be an integral part of the education process. New pathways to tertiary education and the world of work need to be developed, not only in the context of paid employment but also of self-sufficiency, self reliance and self-employment. This is reflected in the Ministers assertion in FBEAP that: TVET must be included as a priority in the national plans of their countries; that governments should endeavour to raise the status of TVET in national education policies; and that any work on the financing of education should include studies on how best to finance TVET programs (PIFS, 2001).

The second major achievement of the Forum Education Ministers was the development of a successful proposal to the EU to provide €8 million over a five year period for the establishment of a new project called 'Pacific Regional Initiatives for the Delivery of Basic Education', now referred to by its acronym as: 'The PRIDE Project'. The New Zealand Government, through NZAID, agreed to join as a funding partner with an initial grant of NZ$5 million over three years.

The PRIDE Project

The PRIDE Project[3] was established to implement the Pacific vision for education encapsulated in FBEAP in the fourteen Pacific member states of PIFS together with Tokelau. It is managed by PIFS and implemented by the University of the South Pacific's (USP) Institute of Education in Fiji.

In response to the goals of FBEAP, the PRIDE Project focuses on vulnerable students, including those from low socio-economic urban groups, those in remote and isolated areas, those with disabilities, female students, and school push-outs and dropouts. This is to ensure that these vulnerable students attend school and remain in school until they acquire necessary knowledge and skills for employment and for life.
The overall objective of the Project is:

> To expand opportunities for children and youth to acquire the values, knowledge and skills that will enable them to actively participate in the social, spiritual, economic and cultural development of their communities and to contribute positively to creating sustainable futures.

In order to achieve its objective, the Project seeks to strengthen the capacity of each of the fifteen countries to deliver quality education to children and youth across all sectors except higher education. The Project therefore has a wide mandate, covering pre-school, elementary/

[3] More detailed information on the PRIDE Project can be found on www.usp.ac.fj/pride.

primary, secondary, Technical and Vocational Education and Training (TVET), and the delivery of education through both formal and non-formal means. The core function of the PRIDE Project is fourfold:

(a) To assist Ministries of Education in the 15 countries develop comprehensive strategic plans, primarily through provision of local/regional technical assistance.
(b) To implement key priority areas in these strategic plans via the provision of sub-project funding; over 50% of the total funding is set aside for this purpose.
(c) To coordinate donor inputs and activities to ensure effective harmonisation of educational assistance to the region.
(d) To strengthen regional and national capacities through the development of an on-line resource centre.

What is unique about PRIDE? Why is PRIDE different from other aid-funded projects in the Pacific? Some of the unique features highlighted by Teasdale, Tokai & Puamau (2004) include:

(i) The fact that the Project was designed and approved by the Ministers of Education: the process started with them, not with the donors. It is very clear that Ministers see PRIDE as their own Project. They are strongly committed to guiding and directing it according to their countries' needs and priorities. The donors, in turn, have shown quite remarkable preparedness to allow this to happen.
(ii) The acronym of the Project - PRIDE - is profoundly significant. Each country is encouraged to build its educational plans and curricular on a strong foundation of local cultures, languages, and epistemologies. All Pacific students should have a deep pride in their own values, traditions and wisdoms, and a clear sense of their own local cultural and national identities;
(iii) There is a strong emphasis on mutual collaboration and support among the countries. The project is about countries helping each other. Drawing on regional expertise is an important feature of the Project;
(iv) The project encourages consultative and participatory approaches to educational planning within each country. There is a strong commitment to bottom-up processes involving parents, teachers, students, private providers, employers, local communities, NGOs and other civil society organisations;
(v) The project strongly encourages a holistic approach to education, with effective articulation between each sector (pre-school, primary, secondary and TVET) and between education and the world of work; and
(vi) The PRIDE Project team is committed to building a strong conceptual foundation for the Project.

To achieve the objective of the PRIDE Project to help countries develop strategic plans for the improvement of education in the Pacific states, the PRIDE team with the assistance of National Project Coordinators (NPCs) has developed a set of eleven benchmarks as a tool to guide this planning process (to consult the full benchmarks document please refer to www.usp.ac.fj/pride). The benchmarks cover the following areas:

1. Pride in cultural and national identity
2. Skills for life and work in a global world
3. Alignment with national development plans and regional and international conventions

4. Access and equity for students with special needs
5. Partnerships with communities and stakeholders
6. A holistic approach to basic education
7. Realistic financial costing
8. Use of data in educational planning
9. Effective capacity building for all education personnel
10. A framework for monitoring and evaluation.
11. Integration of health and physical education in the curriculum and in school activities

These benchmarks were derived from FBEAP and when countries include these benchmarks in their strategic plans and implement them, they are seen to be implementing FBEAP. TVET is very much covered here especially in benchmarks 2, 4 and 6. As mentioned, TVET is seen by the Ministers as an alternative pathway for students and has the potential to: bridge formal education and the world of work; address the drop-out, access, equity and quality issues; make learning more meaningful and relevant to the world of work; and make education more values-based and citizenship-oriented.

During the meeting of the PRIDE Project Steering Committee[4] (PSC) that was held in Suva in October 2005, which was attended by the Directors of Education in the Pacific, TVET was identified as one of the two priority areas for a PRIDE funded regional workshop in 2006. The aim was to explore planning strategies for integrating TVET programs into the secondary school curriculum, including credit earning arrangements, and for achieving more productive articulation between secondary and post-secondary TVET programs and the world of work.

PRIDE regional workshop on TVET

In November 2006, the PRIDE Project funded a regional workshop in collaboration with the UNESCO International Centre for TVET (UNEVOC) in Bonn, the Pacific Association of Technical and Vocation Education and Training (PATVET) and the Palau Ministry of Education, on the theme: *The role of TVET in Pacific secondary schools: New Visions; New Pathways*. The choice of the theme is a reflection of how Pacific states have started to re-think the teaching of TVET in secondary schools. About 36 senior staff responsible for the planning and delivery of vocational education in secondary schools, and/or the articulation between secondary and post-secondary TVET provisions, attended the workshop.

The aim of the workshop was to provide capacity building for senior educators by engaging them in the process of reconceptualising vocational education at secondary school level in their own country, and in the region. Part of the process required reflecting on global developments in TVET provisions for secondary schools and examining the implications for the Pacific. The notion of syncretising the best of the contemporary global with the best of the local was embedded at the heart of this workshop.

Specifically, the objectives of the workshop were to:

- review contemporary global thinking about the role of TVET in secondary schools and examine the implications of these new ideas for the Pacific

[4] Project Steering Committee consists of the Pacific Directors of Education, USP, SPBEA, UNESCO, UNICEF, and PIFS meets annually to decide project direction and policy.

- reconceptualise vocational education in the Pacific, especially from the perspective of local cultures and traditional ways of imparting vocational and life skills
- explore the integration of TVET, life skills and academic subjects in the secondary school using a more holistic approach
- consider alternative pathways from school-based TVET to the world of work, not only in the context of paid employment but also of self-sufficiency, self reliance and self-employment
- examine the interface between school-based and post-school TVET, and between formal and non-formal TVET provisions
- recommend strategies for the implementation and delivery of TVET programs that are inclusive of best practices from local, regional and global perspectives

A 'think tank' approach was taken during the workshop. Participants worked in groups to generate new ideas, formulate new visions, and recommend new directions on the role of TVET in Pacific secondary school systems. The workshop took a highly interactive approach where all participants contributed intellectually and professionally during the intensive group discussions and were interactively engaged in reflecting on the implications of theories, concepts and ideas provided in the keynote addresses.

The highlights of the workshop were the keynote addresses by the two resource people: Dr Rupert Maclean, Director of the UNEVOC Centre in Bonn, and Mr Perive Lene, President of PATVET. One whole day was set aside for the Palau Ministry of Education to showcase the Palau TVET program including the school-to-work component. There was also a case study on the teaching of TVET in secondary schools in Fiji and the link with the Fiji Institute of Technology. The group tasks and presentations were based on the following topics:

- Pre- and in-service preparation of TVET teachers for secondary schools
- Status of TVET in schools and communities
- Integration of TVET courses into the secondary school curriculum
- TVET programs for students with special needs
- Building traditional knowledge and skills into the TVET curriculum
- TVET for self-sufficiency, self-reliance and self-employment
- Bridging between school and TVET and school and work
- TVET in primary schools.

Potential of TVET programs in schools

The participants, during their presentations acknowledged that countries in the Pacific are in different stages of development in the provision of TVET, and that there is still not much focus placed on school-to-work transition. During the group presentations and keynote addresses, there were some common issues raised regarding the potential benefit of TVET in schools and in the school-to-work transition:

First, the workshop highlighted the potential of school-based TVET as a new pathway to develop young people who can become self-sufficient, self-reliant and self employed and are able to actively participate in the social and economic development of their communities, especially those children who will not get into white-collar employment or tertiary institutions, and students who are not academically inclined but are good with their hands.

TVET is considered a vital and important element of human resources development in the Pacific region, with the general objective of preparing learners with adequate knowledge and skills for life and for the labour market.

Second, it was highlighted that if education is the ***key*** to development, then TVET is the ***master key*** that will open the doors to employment opportunities, sustainable livelihoods and self reliance, and close the doors to life adversities such as poverty. TVET has the potential to bridge formal education and the world of work. This is a weak link in most education systems in the Pacific. There need to be transition programs that bridge the gap between learning and work. The Palau school-to-work transition model, although not perfect, is one that could be advocated as an exemplar for the Pacific. This will be described in detail later.

Third, TVET has the potential to address the dropout, access and equity issues. It makes learning more meaningful and relevant to the world of work. TVET also has the potential of meeting the needs of the most vulnerable groups in societies, such as youth, girls and women, lower socio-economic groups, those living in remote areas, and the disabled and handicapped.

Fourth, TVET has the capacity to reduce unemployment, as it prepares young people for wage employment as well as self-employment, thereby facilitating economic development. In addition, it prepares young people to become useful members of their communities and therefore is a vehicle to reduce rural-urban migration. It also has the potential to make education more values-based and citizenship-oriented with emphasis on partnerships and living together.

Despite the huge potential of TVET in the Pacific, there are still many issues and concerns that confront its development. Ongoing attention must be given to allow for changes and improvement. If these concerns are addressed attentively real progress surely can be made to ensure programs will have a lasting impact on our children and youth. A successful school-to-work transition program is a key initiative. The following issues and concerns were highlighted during the workshop, and are common to most Pacific states.

Issues and Concerns

Low status and quality of TVET teachers in schools

Most TVET curricula in Oceania have been driven by the demands of the work-place and the need for specific, job-related skills and qualifications. Many TVET teaching staff have been recruited from the workplace, with limited if any teacher training, and have an instrumental view of their responsibilities; i.e., they view their role as the development of specific technical capacities in their students. Once again a profound shift in the mindset of teachers and lecturers is necessary if they are to contribute effectively to a holistic process of lifelong learning. Every TVET teacher needs to be confident in helping students learn how to learn. And every TVET teacher needs to promote TVET as an integral part of each student's preparation for life and work.

There is a need to improve the status and quality of TVET teachers as they are the most valuable assets and they are at the heart of the learning process. Teachers are the key to improving quality and play a lead role in any reform of education. In addition, they are an important component in the development and implementation of TVET programs in schools.

Lack of industrial experience with most teachers was also a concern. TVET teachers must first be qualified in their subject area before doing a teacher qualification. There is also a need for all TVET teachers to have industrial experience and for governments to put in place industrial attachment policies for all TVET teachers to upgrade their knowledge and skills on new developments in their specialized areas on a regular basis. Apart from industrial experience, there is also a need for an exchange scheme to be established, as this would provide an opportunity for teachers to share experiences and to learn from their colleagues within and beyond the Pacific region.

In order to raise the status of TVET teachers, there is a need to upgrade their qualifications to degree level as most of them only have certificates and diplomas. Salaries should be reviewed, as well as their working conditions relative to market forces. There is a need to establish career paths and succession plans for these teachers so that they do not look at teaching as a 'bus stop' profession where they are seen to take up teaching while waiting to get into their preferred career choice.

The notion of 'second chance' rather than 'second class' in schools and communities

Academic subjects normally are the first choice of students and their families. Vocational education has been the second choice in most Pacific secondary schools. It generally has much lower status. If TVET continues to be seen as being of low status and less superior than academic subjects then school-to-work transition programs will not work optimally.

In order to lift the status of TVET in the Pacific, governments should ensure that TVET is included as a priority in their national strategic plans for education. Provision of TVET must not be seen as a lip service by politicians and industries but a genuine commitment to its implementation. A genuine partnership should be developed amongst stakeholders where resources are shared, funding sources secured and there is willingness on the part of employers to accommodate students to do work attachments in their workplaces.

In addition, communities, parents and students should be well informed about the importance of TVET in education. Awareness programs can be organised to create awareness and to change peoples' mindsets about TVET being second class to academic subjects, and to highlight the potential and benefits of TVET as a pathway to work and tertiary studies. All TVET courses must be encouraged for both sexes, and if possible compulsory for all students.

Lack of clear national policies on TVET and school-to-work transition

Countries need to have a clear TVET policy highlighting the importance of TVET and its socio-economic benefits. The policy needs to be aligned with national plans and priorities. The policy with associated legislation and guidelines on school-to-work transition should identify the level of responsibility of the government, industry, trade unions, and various providers of vocational education and training.
National policies also should include the establishment of a qualifications framework, guaranteeing that credentials obtained in one institution within a country will be recognised by other institutions within that country. A regional Pacific framework also needs to be developed, based on the national frameworks, to allow articulation between countries. TVET policies also should put in place to establish and monitor quality to ensure that the skills and competencies learned by the students will meet the needs of the labour market.

At the moment, government policies in some countries may not facilitate school-to-work programs. In Pacific states, most governments have put in place Occupational Health and Safety (OHS) policies which may restrict students entering the workplace. In Palau, for example, government has had to make provision for the payment of insurance for students so that they can do their workplace attachments. In Fiji on the other hand, a work attachment program was introduced in the 1980s but this was later abandoned because of the risks involved and the need to pay compensation if students are injured in the workplace.

Vocationalising the curriculum: Integration of TVET courses into the school curriculum

The effective preparation of students for life and work in Pacific settings is significantly hindered by discontinuities between the secondary school curriculum and the provision of TVET, both formal and non-formal. A more holistic approach is required. In adopting a more holistic approach to learning the old boundaries between the various sectors of education (pre-school, elementary, secondary, TVET) need to be reviewed, and the question of effective articulation between them addressed. There is a particular need to explore how secondary and TVET curricula might be planned together in a more holistic and interconnected way.

In order to integrate the long-separated 'tracks' of academic and vocational from middle school on, schools should orient youth to work, help them explore different types of jobs, provide guidance about career paths, and assist them in finding work relevant to their needs and interests. Vocational education is considered by many to be too narrow and specific, outdated by modern technology, and ineffective in building language and mathematical skills. Ideally, TVET courses should be woven seamlessly into the school curriculum alongside academic courses. In practice, the curriculum in most countries lacks this integration.

Another key issue identified at the Palau workshop was that relevant TVET curricula must be needs based. A strong message that came through was the need to ‘vocationalise’ and ‘localise’ the curriculum at both elementary/primary and secondary levels. This should be a priority for all Pacific countries. TVET courses must be relevant to each particular school and community, based on the availability of resources, labour markets, school location and the main economic activities of the community.

The need to build traditional knowledge and skills into the TVET curriculum

Traditional knowledge can be defined as local or indigenous epistemologies and skills that are passed on from generation to generation through observation, mentoring, and oral presentations, including story-telling. Building traditional knowledge and skills into the curriculum is not generally practised in the Pacific, especially at the secondary level. The use of traditional knowledge and skills will enable students to develop a deeper pride in their own values, traditions and wisdoms, and a clearer sense of their own local cultural identity.

This requires partnerships with senior citizens and the wider community in order to utilise local expertise in the teaching of local values, knowledge and wisdom. This area needs to be strengthened. Traditional knowledge and skills, as in the performing and visual arts, farming, fishing, values, navigation and traditional healing, should be integrated into the TVET curriculum. Teaching of these skills may not be too expensive as schools will be using local expertise and local resources. There is also a need to syncretise the best of the local skills and knowledge with the best of the global and the implication of these new ideas for the Pacific.

Lack of proper resources and infrastructure due to high costs

The cost of teaching TVET in schools is high. Introducing school-to-work transition programs will incur significant additional costs for school management and for government. This additional cost will include insurance cover for all students on work attachments.

In most countries in the Pacific, minimum requirements for facilities and resources are not met. As a result, teaching of TVET is done in poor facilities, with poorly trained teachers and with the absence of or lack of teaching and learning resources for effective learning to take place. Lauglo (2005: 8) stated that: "In the absence of minimally adequate workshops, equipment, consumables, and trained teachers vocational subjects easily degenerate into being taught 'theoretically' with inadequate attention to practical skills learning".

To effectively teach TVET in schools, proper workshops, laboratories, equipment, and learning resources (including stationery, raw materials, textbooks and teaching aids) must be provided. Governments must secure funding and technical assistance from industries and donor agencies to supplement their own funding. As TVET is seen as the *master key*, finance must be allocated accordingly and not as presently practised in many Pacific countries.

Weak institutional - industry linkage

There is a need for proactive partnerships between industry and schools. A successful school-to-work transition program will only work if there is a strong school and industry partnership. Industries can provide training for teachers and attachment opportunities for teachers and students, thus ensuring appropriate skills for employment. This would allow for students to do work attachments in industries. Work attachments can be for one or two days per week, or for longer periods during holiday breaks, or at weekends. Attachments require commitment from all TVET stakeholders (businesses, industries, trainers and service providers, parents, communities, government agencies, donors, etc) to ensure sustainability of the program.

A school-to-work transition program has to be driven by industries/business with support from other stakeholders. Pacific governments cannot afford to work in isolation. Partnerships must be forged with the private sector, NGOs, and with private training providers. Coordination of effort is required, to ensure that gaps are filled, and duplication avoided.

Every stakeholder will play an important role in the integration of TVET into secondary schools and the school-to-work transition phase. Their participation will involve policy development and planning, provide financial support, review of the curriculum, research, development of guidelines and implementation, setting standards and benchmarks, and monitoring and evaluation of programs.

Lack of political will

For TVET to be an integral part of the education system, political leaders must be convinced of its key role and fully support it. The Ministers for Education, through FBEAP, have indicated that governments should include TVET as a priority in their country's education sector strategic plans. However, in terms of funding, the amount allocated for the implementation of TVET is not seen as a priority in most countries in the Pacific.

Without political will and commitment, however, TVET will remain as lip service with no tangible outcomes seen by the community. Starting with the most senior level, and continuing to all levels of management, sustained political will and commitment is required to ensure a successful school-to-work transition program is in place and human and financial resources are allocated for its implementation.

TVET not accessible to all students and communities

While TVET programs normally are quite expensive, this should not prevent or limit students' access to them. All efforts should be made to make programs accessible to all students. This is especially true for the bigger countries of the Pacific with populations living in rural and isolated areas including outer islands. There is a need for TVET courses to be oriented towards rural/remote and village development. They can be modularised with flexible entry and exit points and where possible recognition of prior learning.

Another way of ensuring accessibility to TVET programs is to teach courses through open/ flexible pathways for TVET students from secondary and tertiary levels. Effective use should be made of distance and open learning systems only where there is evidence of significant cost-benefits and necessary conditions are met. Using new technologies is one way of delivering programs to 'unreached' students in isolated communities.

Need for the introduction of TVET programs in primary schools

In many countries, especially those where children spend 7 or 8 years at primary school, there is a need for initial TVET in the later years of primary, and perhaps even in the earlier years. Many of these students will not continue to secondary school. Their only chance for integrated, in-school TVET is during their primary schooling.

In early primary (classes 1-6) TVET should be generic, providing opportunities to gain basic TVET knowledge/skills across the curriculum, including exposure to different vocational pathways. By classes 7 and 8 all TVET curricula should include career pathway exploration allowing for informed decisions in secondary TVET programs.

TVET primary curriculum begins with what students know and are exposed to in their local community. Traditional knowledge such as indigenous crafts, fishing methods, subsistence skills, traditional agricultural practices, etc, become the foundation for TVET curriculum at the primary school level.

Education aid/aid dependency and the politics of international aid

Pacific Island states, because of their small size and the slow growth of their economies, rely very much on donor funds to provide funding to supplement national education budgets. In most countries, education budgets are just sufficient to fund operating costs, capital developments and emoluments for their large public sector leaving very little to cater for new reforms in education. As mentioned earlier, TVET is seen by many as very expensive in terms of establishment and operating costs, and some donors are reluctant to fund such initiatives.

Sanga (cited in Puamau 2005) stated that: "In educational aid projects, a micro level analysis would show that donors often set the agenda for aid activities, define the terms of reference

for the consultants and set the questions for problem identification". In other words they are dictating to the countries what they should do with their funds instead of allowing countries to decide for themselves how they should utilise the aid. As a result, any education reform on TVET could be neglected and Pacific states will continue to lag behind in this area.

Two Case studies: The Palau High School Work Based Program and the Fiji TVET Programs in Secondary Schools

During the Palau workshop, one day was allocated for the Palau Ministry of Education to showcase the TVET programs offered at the Palau High School, the only public high school in Palau, and half a day was allocated for Fiji participants to showcase the teaching of TVET in their secondary schools. This provided an opportunity for participants to experience the Palau and Fiji models and explore what they could learn from them and take back to their countries. It is about countries learning from each other and helping each other.

It is also worth noting that, in the case studies, two distinct systems were looked at. Palau is a small country with only one public high school and funding provided through its Compact Agreement with the USA. On the other hand, Fiji is a very large country by Pacific standards, with 160 secondary schools, 46 of which offer school based vocational programs, although funding for school-based TVET is only 0.36% of the total education budget.

The Palau school-to-work transition model: a success story

The Palau school-to-work transition model can be advocated as one of the best in the Pacific. The most notable feature of the Palau education system is its attention to career development. It seeks to make education more relevant to students' future careers by aligning curricula with the needs of industry, by integrating academic courses with TVET subjects, and by making links between students' classroom experience and the world of work.

Students through the normal academic stream are required take TVET subjects based on their career choices. This is an example of TVET courses being integrated with academic courses allowing all students to take TVET subjects at secondary level. While in school, students have a variety of options to choose from before they select their field of specialisation at Year 11. The curriculum and instructional strategy used by the school are geared to preparing an academically and technically competent workforce.

The career academies are based on the idea that all students select a career path upon which to focus their studies while in high school. In the academies, TVET is integrated into the academic stream with students taking a minimum of three academic subjects and one vocational-technical course in a block-scheduling format each semester. The aim is to develop workplace skills needed by employers. It incorporates a workplace-learning component under the supervision of local employers through job shadowing, career mentoring, career practicum, and Summer Work Experience Program (SWEP).

The types of work-based activities are organised so that in Grade 9 students take a compulsory career development course that includes field trips to work sites, guest lectures, computer studies, a business academy, and the study of occupation options and job requirements. In Grade 10, all students complete a Workplace Skills program focusing on communications, ICT and workplace skills development.

In Grade 11, students select a Career Academy from one of the five options: business; natural resources; automotive; construction and tourism. Within the academies, students learn specialised skills and gain considerable hands-on experience. A full week is spent in a workplace setting. Instructors from the Palau Community College come in to the school to assist with the academies. At Grade 12, students continue with further academy based courses in their selected area, and participate in a one semester career practicum where they work four afternoons per week in an appropriate workplace.

During SWEP, all high school students from 9th to 12th grade from Palau High School also work for a total of 320 hours and are provided a stipend of US$100.00 weekly. It is important to note that in all work-based activities, student insurance coverage is provided by the Ministry of Education. In addition, all work-based activities are credited towards the students' career academy requirements.

Further to the work-based activities, the school, in partnership with the Palau Community College (PCC), administers a dual enrolment program where high school students start taking College courses while still in High School. These courses are taught by the staff of the Community College next door. Grades and credits earned can be cross-credited towards students' courses of study when they enrol at PCC after high school. The advantage of this arrangement is that, as students move to PCC for tertiary studies, they will be taught by the same lecturers and there is a seamless transition from high school to PCC. Motivated students can fast track through high school and complete one semester ahead of schedule. Most students are able to earn credits during high school studies towards TVET programs, many gaining as much as one semester of credit.

The work-based learning is made possible through collaboration and partnership between the Ministry of Education and (i) the Belau (Palau) Employers and Education Alliance (BEEA), whose role is to: identify skills needed in the workplace; connect school based learning to work based learning; host students in work based activities; and to prepare students for a future in the workforce; (ii) the Belau Family School and Community Association (BFSC), whose role is to support career interest at home, encourage parents to sign consent forms, and provide logistic support; and (iii) the Palau Community College (PCC), which administers the dual enrolment program.

The articulation between secondary school and tertiary education is impressive, as are relationships between the Ministry and the private sector. The workplace program receives strong support from local businesses.

There are a lot of lessons that can be learned from the Palau school-to-work model. First, there is strong commitment by the government in the implementation of the school-to-work transition program. Second, there is genuine partnership between the Ministry of Education, the Employers Alliance, the parents and PCC. Third, there is effective career counselling and guidance by the Counsellors. Fourth, the programs offered are very relevant to workplace skills requirements. Last but not least, the strong leadership demonstrated by the Minister of Education and staff of the Ministry, the commitment shown by the teachers, and the effective management of the work based program by staff of the High School and PCC, all play an important role in the success of this important initiative.

The Fiji model on teaching of TVET in secondary school

As mentioned earlier, Fiji is a large Pacific country (although tiny by Asian standards), with more than 600 primary schools and 160 secondary schools. Of the 160 secondary schools, about 55 offer TVET programs running either a school-based or a stand-alone model. A favourable development in TVET is the increasing support provided by the school management committees and principals, particularly in the urban and semi-urban areas. The establishment of TVET programs in a school depends very much on the interest of the school management and their capacity to funding such an expensive initiative with some support from the government.

For the school-based model, vocational subjects are taught parallel to the academic stream and the vocational pathway is geared for students who are not academically inclined. The stand-alone model is employed by fully fledged stand-alone vocational schools. Both programs caters for school leavers who have completed ten years of general education with an age range from 15 to 20 years. The programs provide either one or two years of intensive skills training with a focus on self-employment, paid employment, further education or training for skills useful for those who will go back to their villages or rural settings.

Montfort Boys Town, one of the stand-alone schools, enrols school dropouts. These are economically poor and disadvantaged youth, orphaned youth, single parents and other underprivileged students needing to regain self-esteem. The records show that between 95% and 100% of students graduate every year find employment in the labour market.

The Enterprise Model which is part of the school based program employed at Ratu Navula High School in Nadi is a good example of a successful school-to-work transition program. The school is strategically located amidst the chain of large hotels in the western part of Fiji, and took advantage of its location by fully engaging students in the hospitality and tourism industries during work based attachments leading to permanent employment. The school itself runs its own restaurant, bar and housekeeping facilities, which is part of the enterprise program, which in turn generates income for the school.

Regardless of the models employed by the schools, the vocational courses offered are being franchised with the Fiji Institute of Technology (FIT). Stages 1 and 2 of FIT courses are taught at those schools that have met FIT standards. Students who pass these courses will earn credit for stages 1 and 2, and will then do stages 3, 4 and 5 if they decide to pursue further studies at FIT itself. FIT courses on franchise with the schools are being taught by teachers at the school, but are monitored and evaluated by the FIT staff.

In terms of work-based learning, the current *ad hoc* arrangements with employers are not satisfactory. The government has no clear policy on school-to-work transition. Students are responsible for securing their own workplace in order to complete their work experience. The government does not have any insurance schemes for students, and employers are taking risks in accepting them into their workplaces. The current OHS policy and the lack of work-cover for students are deterring factors in the establishment of an effective school-to-work transition in Fiji. Although the Education Ministry and industry linkage is strong in the development of curricula and programs, it is still weak in the establishment of effective and better coordinated school-to-work transition programs for students. This partnership needs to be developed further and needs to pull in the support of the parents and training institutions, as is the case in Palau.

Conclusion

The development of TVET, including the school-to-work transition phase, is still at different stages of development in the Pacific region. Countries such as Fiji, Palau and Samoa have relatively well developed programs that are exemplars in the Pacific. Some countries are following closely behind while others, especially the smaller states, are seriously thinking about establishment of TVET but are wary about the costs involved and are still contemplating the best model to meet the needs of their people.

TVET, according to participants in the recent PRIDE workshop, is an important component of education as it prepares students for the world of work and develops young people to be self-sufficient, self-reliant and self employed, and able to actively participate in the social and economic development of their communities.

A successful school-to-work program requires genuine partnerships amongst stakeholders, especially the key players such as Ministries of Education, employers, parents and training institutions. In addition, the countries will need commitment and political will from decision-makers, including politicians. The leaders need to take ownership of this important area, and commit scarce resources to it.

Because of the relative smallness of the countries and their economies, and the limited capacities of their Ministries of Education, it is important that they work together in a collaborative way. They must champion regional cooperation and they must be willing to share resources and expertise. Effective TVET provisions in the Pacific require countries to help each other and learn from one another.

References

Lauglo, J. 2005. Vocationalised secondary education revisited. In Lauglo J & and Maclean R (eds). *Vocationalisation of secondary education revisited*. Springer, Netherlands, pp 3-49.

Ministry of Education, Republic of Palau. July 2002. *Work-based learning activities implementation handbook*. Koror, Palau.

Pacific Islands Forum Secretariat. 2001. *Forum Basic Education Action Plan (FBEAP)*. Pacific Islands Forum Secretariat (PIFS), Suva.

Pacific Islands Forum Secretariat. 2003. *Pacific Regional Initiatives for the Delivery of Basic Education (PRIDE): Project Design Document.* Suva.

Puamau, P. 2005. Rethinking educational reform: a Pacific perspective. Paper presented at an international conference on *Redesigning pedagogy: research, policy and practice*. National Institute of Education, Nanyang Technological University, Singapore, 30 May – 1 June 2005.

Quisumbing, Lourdes, R. 2005. Education for the world of work and citizenship: towards sustainable future societies, in *Prospects: quarterly review of comparative education.* Vol. XXXV, no. 3, pp 289-301. UNESCO.

The PRIDE Project. October 2004. Palau's education system addressed career development innovatively. In *Pacific PRIDE*, the Newsletter of the PRIDE Project, Issue 1. Suva.

The PRIDE Project. October 2006. *Benchmarks for National Strategic Plans- Third Edition.* University of the South Pacific, Suva.

Teasdale, B., Tokai, E. & Puamau, P. 2004. Culture, literacy and livelihoods: reconceptualising the reform of education in Oceania. Paper delivered at a Commonwealth of Learning Consultative Meeting, Vancouver, 15-17 November 2004.

Website: www.usp.ac.fj/pride
Email: pride@usp.ac.fj

Indonesia

PREFACE

This paper is more focused on the experience of how to prepare and develop the competencies of the worker candidates before entering the world of work in Indonesia. The content of the material comprises the general illustration of education in Indonesia, how to manage the Vocational School in order to prepare the workers candidate, what is the problem and how to improve the quality of the school. This paper also illustrates how to prepare the workers candidate through non-formal process for the drop out students or unemployed graduates.

INTRODUCTION

1.1 Background

This simple paper is composed to fulfill the request and the invitation from the National Institute for Educational Policy Research of Japan (NIER) in corporation with UNESCO International Centre for Technical and Vocational Education to conduct a seminar on Technical and Vocational Education and Training from School to Work: Contemporary International Experiences from 23 to 30 January 2007.This paper is composed to provide general information on two main issues as follows :

1. *Preparing school leavers for the world of work.*
2. *Supporting young people through the actual transition process.*

The writer names this topic with two meaning, these are (1) how the school prepares its students to enter the world of work, (2) what support/preparation of workforce as the transition process to enter world of work.

1.2 The Objective of Writing this Paper

This paper is composed with the objectives :

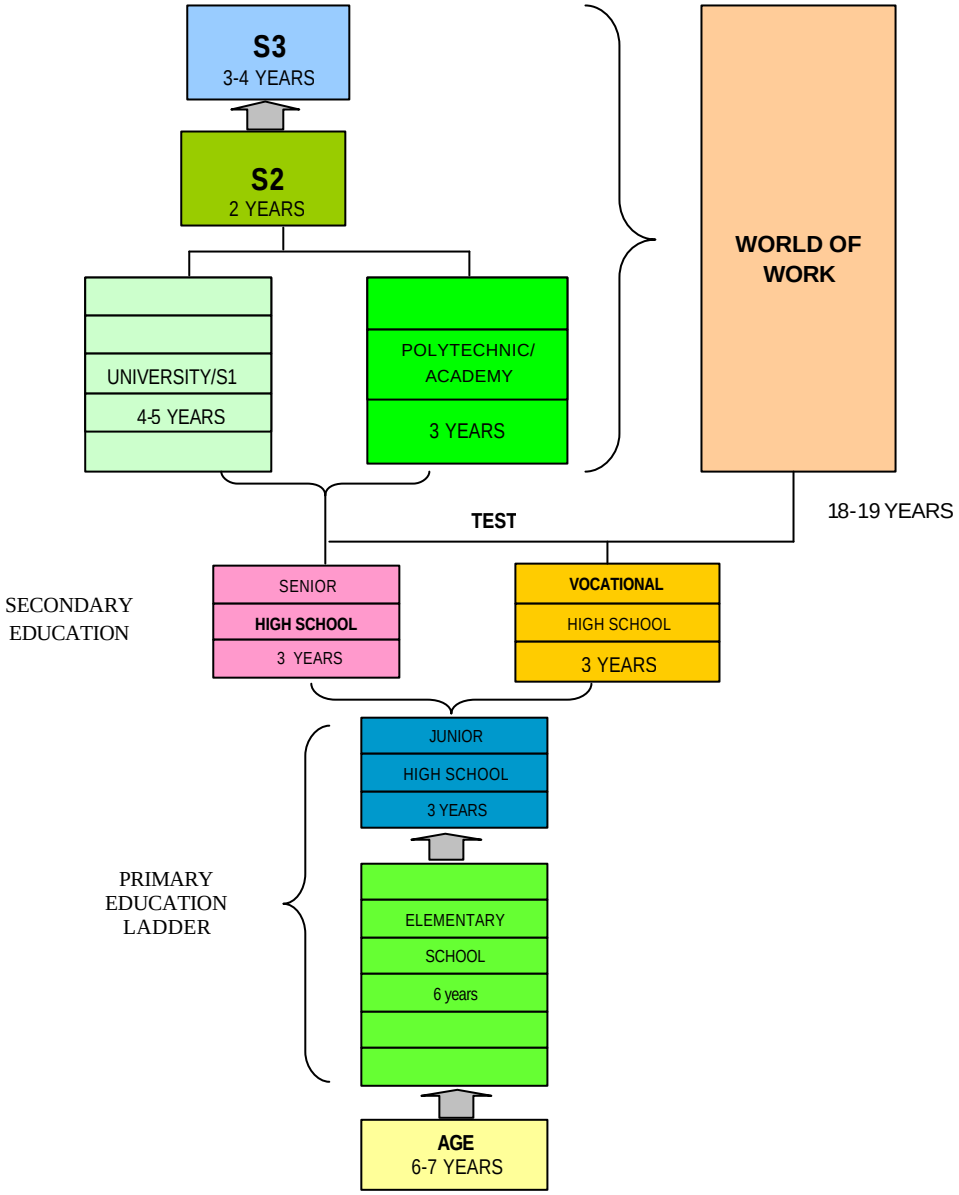
1. To be presented in the agenda of a Seminar on Technical and Vocational Education and Training from School to Work: Contemporary International Experiences.
2. To provide illustration to the participant of the seminar about :
   a. General illustration of education implementation system in Indonesia;
   b. Information concerning the Senior Vocational School (SMK) that prepares its students to enter the world of work comprises: the objective of SMK, the education process of SMK, and the problems faced as well as the efforts to its solution.
   c. Preparation of young people to enter the work of world without formal education.

1.3 General Illustration of Educational System in Indonesia

The education system in Indonesia consists of formal and non-formal education, and informal is a complementary and enrichment.

1. Formal Education

The formal education consists of elementary education, secondary education, and higher education in which its cluster comprises: general education, vocation, academic, profession, religion and special education. The ladder of formal education can be illustrated as follows :



The level of formal education consists of :

Primary Education : constitutes the level of elementary education as the basis leading to the secondary education. The elementary comprises Elementary School (SD) 6 years plus Junior High School (SMP) during 3 years.

Secondary Education : constitutes an Elementary Education. The Senior

High School consists of :

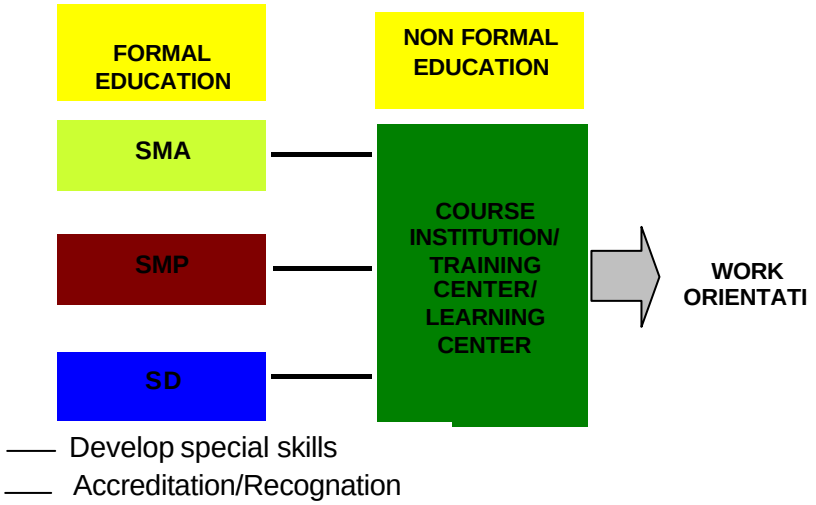
General Senior High School:
prepares students to enter Higher Education/ Universities, polytechnic/academy. The students learn general knowledge. The subjects learned consists of:
Normative: Indonesian Language, History, Civics, and others.
Adaptive: Phisic, Chemistry, Mathematic, and English Language.

Senior Vocational School
prepares students especially to enter the workforce in the industrial world or enterprises. Those who are successful and passed the test are still allowed to continue to Universities/Polytechnics/ Academy. The subjects consists of:
Normative: Religion, Indonesian, English Language, and History.
Adaptive: Phisic, Chemestry, and Mathematics.
Productive: The subjects containing the provision of skills to do jobs.

Higher Education : Constitutes the education level after the scondary education that covers the diploma, bachelor/degree, masters degree, specialist and Doctorate program.

2. Non Formal Education

The non formal education aims at helping the community requiring the educational service which is functioning as a replacer, adder and/or formal education in an effort to support long life education.
The non formal education develop the potential of the students with the orientation on the mastery of knowledge and skills as well as the development of personality and professional attitude.
The non formal education consists of course/training institution, learning team, community college and others.



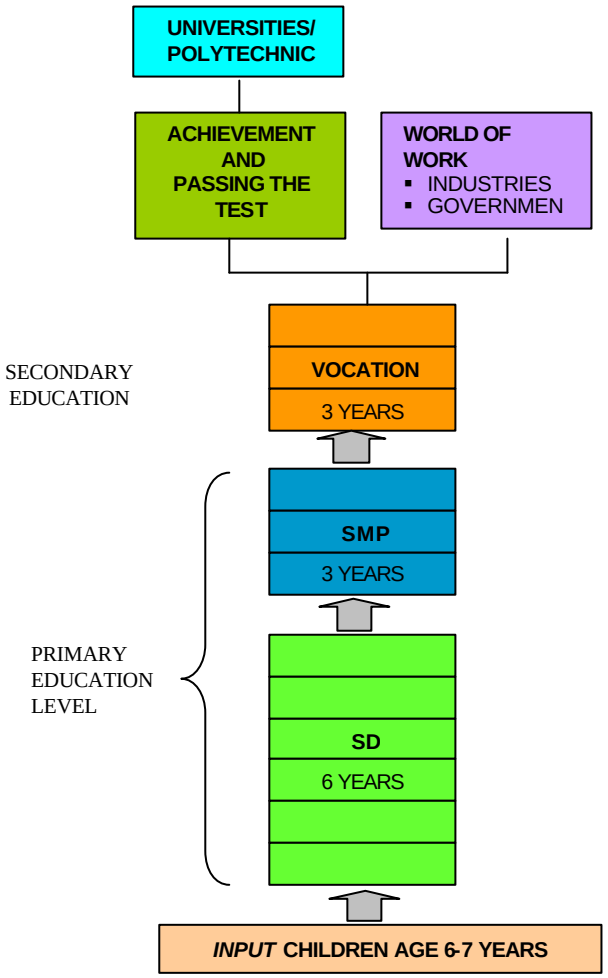
Remark:

3. Informal Education

The informal education activities is that the education being conducted by families and the environment in the form of independent learning activities.

PREPARING SCHOOL LEAVERS FOR THE WORLD OF WORK

In Indonesia in order to prepare the young workforce (students) to enter the world of work, is prepared through formal education of the Senior Vocational School.



Further discussion will be focused on the implementation of education at Vocational School that is preparing its students to enter the world of work.

2.1 The Objective of Senior Vocational School

a. To prepare students to become productive people, have ability to work independently, fulfill the existing work vacancies in industries in Indonesia

or overseas as a middle workers relevant with competencies within its specialization program.

b. To prepare student in order to be able to choose career, perseverance, competitive and adaptive in work environment and develop a professional attitude within the specialization program.

c. To prepare students with the knowledge, technology, and work ethos in order to be able to develop themselves in the future, independently or through higher education level.

The above objective is still general in nature while the provision of skills/specialization are opened and developed in various specialization which total ± 110 specialization programs. These specialization programs are among others :

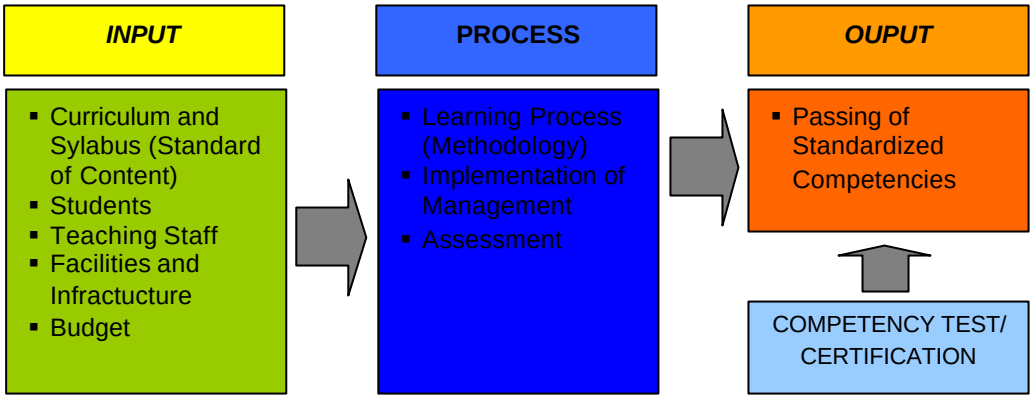
- Specialization of Automotive Mechanic- *Passenger Car;*
- Specialization of Automotive Mechanic-Motor Cycle,
- Specialization of Automotive Body Repair,
- Specialization of Industrial Electronic,
- Specialization of *Wood Working;*
- Specialization of Tourism,
- Specialization of Hotel
- Specialization of Accountancy
- Specialization of Information Technology,
- Specialization of Building Construction,
- Specialization of Production Machining,
- Specialization of Welding and Fabrication, etc.

2.2 Education Process at Senior Vocational School (SMK)

In the implemtation of the Vocational School in Indonesia, it is based on the National Standard as guideline, regulation and procedure issued by the Board of Education National Standard. The standard consists of :

a. Content Standard (Curriculum and Syllabus)
b. Process Standard (Learning Implementation)
c. Passing Competency Standard
d. Education Staff Standard
e. Facility and Infractucture Standard
f. Financing Standard
g. Assessment Standard

This regulation is issued by the government in the year 2006, so that its implementation is still in progress. The education process at the Vocational School can be illustrated as input, process and output.



INPUT:

1. **Content Standard**

   The content standard covers the material coverage to achieve the passing competencies at the formal education level.

   The material scope comprises :

   Normative Aspect consists of the following subject matters; Religion, PPKN, Indonesian Language, Sport Education, and Art and Culture.

   Adaptive Aspect consists of theory of the English Language, Mathematic, Science, Social, Basic Computer and Enterpreuner

   Productive Aspect is a range of basic competencies of vocation in accordance with the specialization program chosen by students (there are ± 110 specialization programs). Each SMK implements between 1 to 5 specialization programs. In the productive aspect it develops and implements specialization program with the nastional standard and local content as curricular activities to develop productive competencies suited to the industrial/regional need where SMK exists. In the productive aspect its curriculum and syllabus are developed and composed from the specialization of the competency standard and is developed by the Profession Certification National Board.

2. **Students**

   Constitutes the *input of* SMK, graduates from the Junior High Schhol.

3. **Teaching Staff**

   Must possess a minimal S1/D4 qualification and kompetency/specialization to be trained to students, which its competencies consists of :

   a. Pedagogical Competency,
   b. Professional Competency,
   c. Social Competency,
   d. Personality Competency,

4. **Facilities and Infrastructure**

   Consists of office building facilities, theory room, practical room, laboratory, educational madia (multy media), and paractical facilities to support the learning implementation to achieve competency standard.

5. **Budgeting**

The budget to support the operational implementation of the theory lesson and practical and other school operation being financed by:

- State School mostly ± 90% financed by government
- ± 5% community participation funding (students fees)
- Private School, the budget is from the private business, community participation, and government funding (± 15%).

PROCESS:

1. **Learning Process**

   Constitutes a learning interaction process between students and teachers using various learning media, teaching material, and the relevant methods.

   In the learning process there has been a collaboration between school and industrial world in order to design the program together, particularly students from Senior Vocational School (SMK) can follow the On the Job Training (OJT), and at the same time the students can learn industrial working environment.

2. **Implementation Management**

   Constitutes a School Management Strategy that consists of planning, implementing, and Evaluating, which contains 8 items of the National Standard, consisting of:

   a. Content Standard
   b. Process Standard
   c. Passing Competency Standard
   d. Education Staff Standard
   e. Facilities and Infrastructure
   f. Management Standard
   g. Budgeting Standar
   h. Assessment Standard

   For certain subject matters such as Mathematic, Indonesian Language and English Language will be assessed by the National Examination at the end of the education program grade 3, whereas for productive subject matters will be Competency-Based Certified to be conducted by in collaboration with industrial world or by the Educational Certification Institution (LSP).

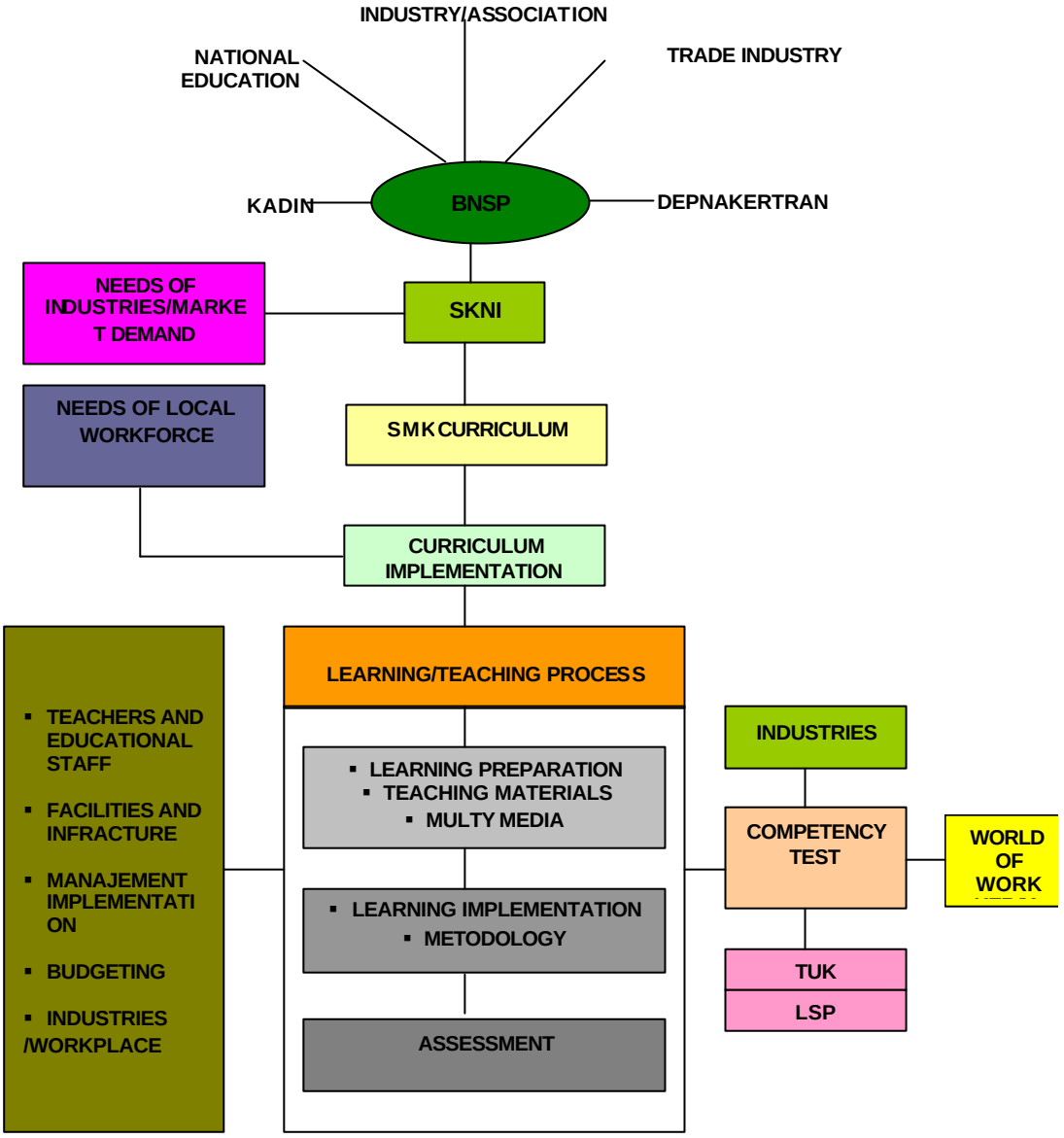
   The assessment covers the formative and summative assessment for the normative, adaptive and productive aspects.

OUTPUT:

1. **Graduation**

   The SMK *output* that its ability is expected to fulfill the specified standard in the SKKNI and the certification test being conducted by industries or by the Education Certification Institution (LSP).

DIAGRAM OF TRAINING IMPLEMENTATION



2.3 Problems Faced

In the implementation of the vocational education in Indonesia the quality standard of the graduates prepared to enter workforce is still unable to work directly and fulfill the competency standard as referred to by the Indonesian National Competency Standard (SKNI) which is determined by BNSP. These problems are among others:

2.3.1 Relevance and Quality Program

The relevance between program conducted and the demand of the workforce often the school follow the innovation of technology and the demand of the existing skills in industries and industrial work ethos.

2.3.2 Community Interest

The community interest to enter vocational schools is relatively low compared to that entering public school, therefore it is difficult to have qualified input (students).

2.3.3 Provision of Teachers and Educational Staff

Problems faced in the provision of teachers and educational staff for vocational schools is that finding the professional vocational practical teachers with sufficient numbers and are relevant with specialization being developed at schools.

2.3.4 Facilities Condition

Facility is one of the determining factors of the successful school in achieving effectiveness and efficiency in conducting the learning and teaching processes. The school facilities from building facilities, office facilities, theory room, practical room, laboratory room and materials needed for practical are inadequate, so that the achievement of the quality standard of the graduates is difficult to achieve due to shortage of the standardized facilities

2.3.5 The industrial sectors pay less attention to the implementation of vocational education in Indonesia, and it is difficult to formulate the SMK program with industries, to implement practical with integrated program between schools and industries, to involve industrial workers being portreyed as instructors/assistances in the implementation of practical work in industries.

2.3.6 The operational cost of the school is still very much dependent on the budget from the government.

2.3.7 The workers career of the SMK graduates working in industries tend to be limited.

2.3.8 The vocational education merely aims at formal sector and less focuses on the increase of motivation on entrepreneurship.

2.3.9 In the implementation of learning lacks of focus on the competency mastery.

2.4 Efforts being undertakan to Solve the Problems of Vocational School

From several problems faced in the implementation of vocational schools, much efforts have been made to overcome those problems at the vocational school in Indonesia.

Several efforts can be described as follows:

1. The curriculum is designed based on the National Competency Standard issued and approved by the National Board of Profession Certification (BNSP). The competency standard is composed in collaboration with industries, educational sector, Chamber of Commerce, and Department of Manpower, so that the national standardized can be accepted by all parties. The SMK curriculum in addition to comply with National Standard also accommodate local need of the workforce.
2. Improve the competencies of the teaching staff through various programs:
   - The improvement of competency through training at the Training Centre.
   - The improvement of competency through On The Job Training.
   - The improvement of competency through S1 and D4 qualification training .
   - The improvement of competency through Off-The Job Training.

- The improvement of competency through training Assessor program.
- The improvement of pedagogical, social and personal competence.

3. The improvement of the systematic leadership competence of the School Principal.
4. The improvement of the educational facilities through assistance of the directorate, regional, and community participation.
5. Improve school performance through selection and reward system with good performance by gaining assistance from the directorate or regional office.
6. Improve school predicate to become National and International standard schools.
7. Strengthen the relationship between schools and industries through dual system program .
8. Make implementation standard of vocational education containing:
   - Content Standard (Curriculum and Syllabus)
   - Process Standard (Learning Implementation)
   - Passing Competency Standard
   - Educational Staff Standard
   - Facilities and Infracture Standard
   - Management Standard
   - Budgeting Standard
   - Assessment Standard
9. The implementation of learning with competency based.
10. Flexible education system, students can access a specialization such as vocational skill through multi-entry and multi-exit.
11. The competency/certification test is conducted at the vocational school in collaboration with TUK/LSP and industries.
12. The vocational schools open and implement the program adjusted to the market demand.

PREPARATION OF YOUNG PEOPLE TO ENTER THE WORLD OF WORK

3.1 The Management of Competency Standardized System of Workforce in Indonesia

The preparation of skilled and qualified workforce apparently is difficult to be achieved either through formal education (SMK) as already explained in chapter II or through non formal education.

Several efforts to prepare and improve the skilled manpowers being prepared to enter workforce is carried out in Indonesia. For this in Indonesia in August 2005 had been established the National Board of Profession Certification (BNSP) as semi independent government institution which function to determine the policy of standardization and profession certification as well as to carry out acreditation towards the Profession Certification Institution (LSP). The Function of the BNSP as follows:

a. Determination of standard and profession certification
b. Determination of competency standard.
c. Carry out the accreditation of the certification institution.
d. Development of standard information system and profession certification.
e. Implementation of collaboration of standard and certification.
f. Controling of standard and profession certification implementation.

The Profession Certification Institution

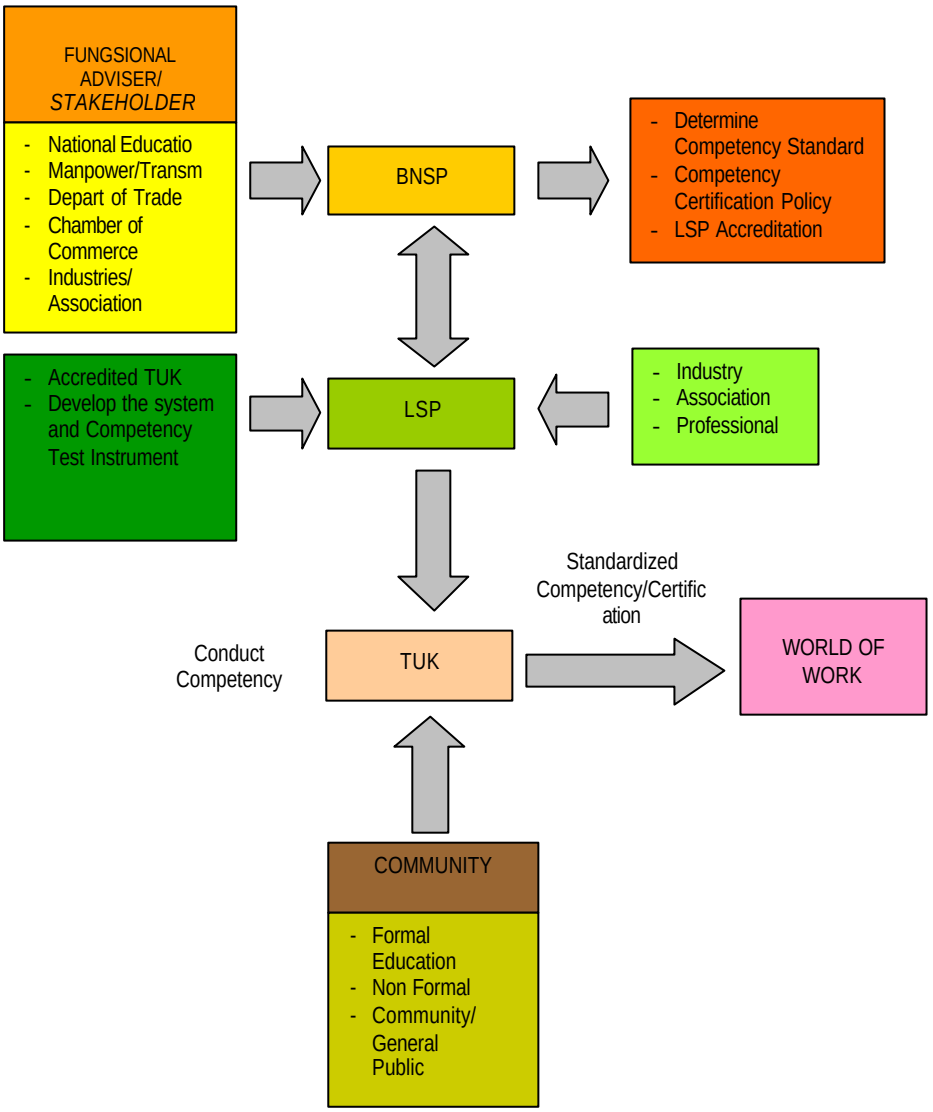
The Profession Certifacation Institution (LSP) is an independent institution established by the profession association and the industrial parties that has responsibilities as follows:

- Assist BNSP in developing competency standard.
- Carry out competency test and competency certification,
- Implement the accreditation of the profession training institution and the place for competency test;
- Develop the system and instrument of competency test;

The legality of the LSP is accredited by the BNSP. The Competency Test takes place at the government or private in the formal education acted to :

- Develop the instrument of competency test with LSP which its materials/skills are based on the stated competency standard/SKNI.
- Conduct competency test for the workers candidate whereas the certification is issued by the LSP.

Training Institution/Competency Test Place (TUK) Accredited by LSP



The implementation of this system is being processed and is still awaiting the transition and socialization for the information to all related parties. In order that all people possess similar perception and commitment for its implementation.

3.2 Preparation of Manpower Through Non Formal Education System

In the preparation of the educational staff in addition to formal education (SMK) as already discussed in Chapter II, in Indonesia is prepared through non formal such as short training with duration between 1 week to 6 months depending on the specialization programs and the programs being prepared by the institutional training provider.

The objective of this manpower preparation with the provision of special skills and its implementation is incidental in nature depending on the work market demand, the supply of budget from the government, and the special programs

to train the enterpreneurs with small scale business (for self-employed). The characteristic of preparing this manpower comprises :

- Training time is relatively short that is during 3 days, 6 days, 2 weeks, 3 weeks, 1 month, and the longest period is 3 months.
- The provision of skill is not based on competency, so that it is difficult to achieve the standardized specialization,
- The provision of the specialization is specific skill in nature;
- The preparation is for the participants to have mental preparation to enter the world of work,
- Several programs are more focused on the project,
- The level and the time of the implementation are not systematic,
- The provision is more focused on theory and practice in nature which is packed in such a way to be more practical and simple.

3.3 Community College/Career Centre

The program of the Community College/Career Centre is carried out upon the government policy in order to prepare the SMK graduates, who have not yet got skill work, is improved with more specific, so that it is expected ready to enter the world of work.

1.	Objectives	:	▪ prepare professional workforce possessing special skills to be applied directly to the workplace. ▪ Provide the skills based on the existing occupation level in the workplace. ▪ To overcome and decrease unemployment rate.
2.	*Joint* Program	:	This program must be a collaboration program between the SMK or Polytechnic with industries.
3.	Programs	:	The program and syllabus are agreed together between industry and the SMK or Polytechnic. The materials are based on the industrial needs. The ratio of theory and practice (theory 30% : practice 70%).
4.	Strategy of Implementation	:	The learning activities are carried out at the SMK/Polytechnic for theory and basic practical skills, while its application is conducted at the industries, aiming at forming the students possessing industrial work culture.
5.	Time of Implementation	:	The time of the implementation of the Community College /Career Center is between 8 to 12 months.
6.	Characteristic of Program	:	This program is implemented temporarily, based on the work market demand and the readiness of industries to collaborate with the educational world. This Program is subsidized by the government The participants have to pay in accordance with the prevailing regulation.
7.	Marketing of graduates	:	▪ Graduates are flexibly marketed. ▪ Industries as partners are expected to recruit the graduates ▪ Graduates are marked to other industries if work partners are occupied..

3.4 The Implementation of Skills Through Non Formal Education

The implementation and special provision with a veriety of subtances depend on the planning prepared by the institution, entry level of the participants, and the requirement of the work market. The scope of the materials are among others:

- Special skills,
- Entrepreneurship,
- Mental Development,
- Mechanism and technique of applying the job, and othres.

The implementation of this special competency in Indonesia is carried out at:

1) Skill Training Center (Department of Manpower)

This Skill Training Center regularly conduct the training.

1.	Training Objectives	:	▪ Provide special skills in order that the participants have preparation to enter the local world of work, national and overseas. ▪ Prepared to become entrepreneurs /run small scale businesses. ▪ Decrease unemployment in Indonesia.
2.	Programs	:	Formulated by the Skill Training Center (BLK) Department of Manpower based on the industrial needs or preparation to run a small scale business.
3.	Participants	:	▪ Educational qualification can be the Primary School, the Junior High School (sufficient ages), the Senior High School or unemployed Universities graduates. ▪ *drop out* from the formal education of the Primary School, Junior High School, Senior High School or Universities.
4.	Implementation Strategy	:	Theory and practice are implemented at the Skill Training Center (BLK) (theory 30% and practice 70%), or the BLK in the implementation of skill can collaborate with industries.

2) Education and Training Institution

This institution is under the Department of National Education, in which its function is to conduct education and training beyond the school level for various training to fulfill the need of the internal National Education and general public. One of the training programs being implemented by this institution is to conduct training for preparing the workers candidates being marketed to the world of work or to develop entrepreneurship with similar role to the training being conducted at the Manpower Training Center.

1.	Training Objectives	:	▪ provide special skills in order that students are ready to enter the local world of work, national, and overseas. ▪ Prepared to become entrepreneurs/run a small

scale business.
- Decrease unemployment rate in Indonesia.

2. Programs : Formulated by PLS based on the input from the field (theory 50% : practice 50%).
3. Participants :
   - Educational qualification Primary School, Junior High School (unemployed and sufficient ages).
   - *drop out* from Primary School, Secondary High School or Senior High School.

3.5 Private Course Institution

The implementer of the workforce preparation in Indonesia are many private course institutions with various specializations offered to the community seeking the jobs. The characteristics of this institution are among others:

- Time of the course between 1 week until 6 months;
- The corse fee is purely fron the participants/workers candidates;
- The course oriented is that profit making.
- Improve specific specialization for various skills offered;
- Irresponsible for marketing its graduates;
- The provision of the learning facilities are relatively limited except for the professional courses with limited in numbers.

3.6 Labor Office

The labor office is an enterprise or bureau of the workers distributor having the characteristics are as follows:

- In the form of bureau or foundation;
- Constitutes the bureau of the workforce distributor by collecting merit from the workers candidates ;
- Distribute the manpower to companies or industries in Indonesia or overseas;
- The accepted candidates have been prepared through formal education level of the vocational school or the candidates that have followed the training in the course institutions or other training centers.

3.7 *Private Training Centre*

Big private companies in Indonesia usually have their own training centers. Therefore, if those companies recruit the SMK graduates or those who are equivalent, the workers candidates will be trained to improve their skills, develop the attitudes and industrial work ethos and the adaptation process before they start working in the companies.

CONCLUSION AND SUGGESTION

Based on the objectives of the writing of this paper that is to provide information on the Indonesian experiences in preparing the candidates of workers in young ages. In general, preparing the workforce in Indonesia is carried out through 2 ways, that is through formal and non-formal education.

1. Preparing candidates of workforce through formal education is carried out through Senior Vocational School, which is its step comprises: school entrance age 6-7 years, entrance age of Primary School (SD) 6 years, entrance age of Secondary High School (SMP) 3 years, then entrance age of Senior Vocational School (SMK) 3 years. The Senior Vocational School (SMK) prepares its graduates to become productive people as a middle workforce, possess the skills for self-employment to fulfill the work vacancies that exist in the industrial world in Indonesia or overseas, and holds professional attitude. The implementation of learning at Senior Vocational School (SMK) comprises: the normative, adaptive and productive aspects. The productive aspect consists of various specialization. In Indonesia there are ± 110 specializations being implemented at SMK. In order sssto control the quality the design of the SMK curriculum is based on the National Competency Standard and at the end of the course the students have to undertake the Competency Test in order to obtain the standardized certification from LSP or industries.

2. The young graduates passed from formal education or drop out from the school that do not possess sufficient skills to apply for job. Various efforts are carried out by the government to prepare and increase competencies and mental preparation of the workers candidates through a special training program conducted in the government training centre. Special projects being prepared to be distributed to the workforce or to become entrepreneurs. The preparation of the workforce is also offered by non government training centre through the training being designed between 3 days up until maximum 3 months in order to obtain the necessary (special) skills for applying for works. This training centre is profit oriented in nature. Whereas the industrial world which are not satisfied with the performance of the workers candidates, they conduct their own recruitment then after being accepted, the training is conducted at their own companies. In Indonesia, many workforce offering the service of workers distribution as traffic in conducting a recruitment program.

3. The quality control of the workforce in Indonesia is carried out by the Certification National Board of Profession which has its function for determining of standardization policy and profession certification, determining of competency standard, implementing of acceleration to the Competency Test Place (TUK), controlling of standardization implementation and profession certification for the vocational workforce in Indonesia.

Japan

I Introduction

The rapid progress in science and technology in Japan since World War II has of course been brought about by the diligence of the Japanese people, and it is an undeniable fact that general and vocational education in schools has provided a foundation for this progress, but we must not forget the role played by vocational training systems both in public-sector vocational training facilities and within companies.

In recent years, more than 60 years after the end of the war, many kinds of changes can be observed in such areas as vocational education and training systems and educational content, as exemplified by the ways in which, in schools, the re-evaluation of various kinds of educational reforms and systems is being promoted, and in companies, cases are occurring of in-company training, which has been a particular characteristic of the Japanese system, being discontinued. Moreover, the noticeable increase in young people who flit from job to job or simply become NEETs (people not in employment, education or training) has become a social problem, and career education is currently being introduced into elementary and secondary schools as an issue of pressing concern for school education with the aim of cultivating an awareness of vocational training and employment.

Focusing primarily on schools operating under the jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology (hereafter MEXT), but also covering vocational training facilities falling under the jurisdiction of other Ministries and Agencies, this paper aims to provide an overview of vocational education and training in all these establishments, and to consider problem areas as well as patterns that should be promoted in the future,.

Furthermore, with regard to technology education within the framework of general school education in Japan, one of the subjects taught in lower secondary schools (hereafter referred to as junior high schools) is “Technology, Homemaking”; within this subject, learning is focused on technology related to everyday life, and there are very few perspectives that lead into vocational education. For this reason, consideration of this area in this paper will be limited to a brief mention in the overview. It should also be noted that the learning content of school education introduced here is based on the 1998 revised edition of the *Courses of Study for Elementary and Lower Secondary Schools* (implemented from the 2002 school year) and the 1999 revised edition of the

Courses of Study for High schools (implemented from the 2003 school year).

II The present state of technical and vocational education

1 Technology education

Technology education in Japan is located within the framework of general education and is systematically implemented only in lower secondary schools as “Technology and Homemaking”. In elementary schools, technology education forms part of “Life Environment Studies” and “Arts and Crafts”, while in high schools, content concerned with technology forms part of “Home Economics”. It follows that fundamentally the study of technology is seen as embedded in everyday life. Some details therefore now follow regarding part of the learning content from the official *Course of Study for Lower Secondary Schools*, focusing on the area of technology within “Technology and Homemaking”.

1 – 1 The objectives and content of technical fields

The objectives of this field are defined as enabling children “to learn the fundamental knowledge and techniques concerned with such matters as making things or the use of energy as well as use of computers, and at the same time, deepen their understanding of the role of technology and develop the attitudes and abilities required to utilize what they have learned in an appropriate manner.” The content is composed of two sections, “Technology and Making Things” and “Information and Computers”, and the content of each of these sections is set out in detail. During the 3 years of lower secondary school, the broad subject area that children have to learn is “Technology and Homemaking”; the learning content of this subject area is grouped under 4 headings, i.e. the 2 sections already mentioned plus 2 sections dealing with the family, namely “Independent Living and Food, Clothes and Dwelling”, and “The Family and Family Life”. During the first year, pupils have to complete 70 time credit units, during the second year also 70, and during the third year, 35. Each time credit unit lasts 50 minutes, and each school decides how to allocate teaching and learning time under each heading.

As far as the teaching styles in each field are concerned, teachers are advised to pay due attention to ensuring that “practical, hands-on activities form the central core, and children are enabled to experience the joy of undertaking work and completing a project”, also that “pupils undertake problem-solving learning in such a way that they can make connections between what they study and what happens in their everyday lives”.

2 Vocational education

Within the system of vocational education in Japan, education concerned with technical and vocational areas (referred to in this paper as vocational education and interpreted as comprehensive education that includes knowledge and attitudes and not only technical skills) is, at the present time, carried on after the 9 years of general education (compulsory education) prescribed in the Constitution of Japan and the Fundamental Law of Education by means of education in schools and in other institutions. The persons at whom the education is directed differ according to the various levels of education; in terms of educational institutions, the former category of "schools" includes high schools, colleges of technology, junior colleges, specialized training colleges and miscellaneous schools, while the latter category of "other institutions" comprises public-sector vocational training institutions, including vocational training schools, polytechnic colleges and skill development centers, vocational training institutions within companies, and in addition to all these, vocational education facilities under the control of various ministries and agencies, for example, agricultural polytechnic colleges. It should also be noted that universities also have links with vocational education, but since they are not regulated under the School Education Law, they are not treated as vocational education institutions within this paper. Furthermore, in terms of the system in Japan, while universities comprise higher education institutions under the jurisdiction of MEXT, polytechnic colleges comprise upper secondary education institutions under the jurisdiction of ministries and agencies other than MEXT.

It will be clear from the above that there are many different kinds of vocational education institutions, and in the present climate, in which a rising number of high school graduates, to say nothing of junior high school graduates, want to go on to the next higher level of education, changes have to be made in the role played by these institutions.

With the above as background, the paper will now introduce the present state of the various vocational education institutions.

2 – 1 High schools

2 – 1 – 1 The present state of high schools

With an intake of 98% of lower secondary school leavers, high schools play a very important role as institutions operating in the latter part of secondary education.

The courses in high schools are divided by the Guidelines for the Establishment of High Schools into "general courses", which form the mainstay of general education,

"comprehensive courses" (introduced in the 1994 school year), and "specialized courses", which focus on providing specialized education; the main subdivisions of specialized courses are agriculture, industry, commerce, fishery, home economics, nursing, welfare, information, science and mathematics, physical education, music, art and English language. Of these specialized courses, agriculture, industry, commerce, fishery, home economics, nursing, welfare, and information are grouped together in the official *Course of Study* as being mainly vocationally focused, and are generally termed "vocational courses". They either stand as independent courses, or can also be found grouped together with general courses. Recently, as a result of such phenomena as changes in Japan's industrial structure, new types of courses straddling several specialist areas have also emerged. In general, vocational education at high school level in Japan is implemented mainly through courses as described here, on the basis of the official *Course of Study* issued by MEXT. Comprehensive courses may be seen as a kind of vocational education preparation for vocational courses in that they are devised in such as to enable students to choose vocational subjects on the basis of their career aspirations after entering high school.

The courses at high schools are divided into regular courses and short-term courses. The regular courses may be offered as full-time day courses, as part-time courses offered during the day and/or evening, or as correspondence courses. Short-term courses are aimed at young people who have the qualifications required for entry to this level of schooling, are a minimum of one year in length, and aim to provide skill training and education to a relatively easy level in specific areas. Examples of areas in which these short-term courses are already operating include hairdressing and beautician training, also training to become a certified electrical repair worker.

Looking at changes in the number of high schools since 1970, we can see that an initial increase has changed, in more recent years, to a gradual decrease, accompanying the falling numbers of children. Many schools offer only general courses, and there has been a move away from schools offering just vocational courses to ones offering both general and vocational courses or to ones offering comprehensive courses. As of the 2006 school year, there are a total of 5,229 high schools (including 6-year integrated lower and high schools), and more than half of these offer general courses only. The trend observable in schools is also observable when we look at students. In the 2006 school year, of the 3,377,165 students in full-time day schools, 2,552,397 (76%) are attending general courses, while students attending vocational courses number about 687,492 (20%), and those attending comprehensive courses number about 137,276 (4%). It is clear that compared to the beginning of the 1970s, when more than 40% of students

attended vocational courses, there has been a steady decline, and this trend is still continuing. Within vocational courses, those attracting most students are in Industry (8.1% of all full-time day students), followed by Commerce (7.1%), Agriculture (2.7%) and Home Economics (1.5%).

Furthermore, although the numbers of institutions and students concerned are small, mention should be made of "advanced courses" within some high schools. These are aimed at people who have completed high schooling, or who have an equivalent qualification, and aim to provide opportunities for more detailed and deeper study and research in selected areas. The length of these courses is stipulated as one year or more. Looking at examples of courses already established, it is clear that most of them are between 1 and 2 years in length and that in terms of content, they build on the three years of upper secondary study as a basis and provide education in selected areas to a more advanced level. The majority of the courses can be found in vocational subject areas.

2 – 1 – 2 Vocational education within vocational courses at high school

(1) Revisions to the current *Courses of Study*

At the present time, the educational content of high school courses is based on the *Courses of Study* was issued in March 1999, and have been implemented in high schools from the 2003 school year. Guidelines for the revision were provided by reports from the Council on Science and Industrial Education and the Curriculum Council; further details are given below.

In the July 1998 report from the Council on Science and Industrial Education, 6 points are set out as factors contributing to the reform and enrichment of education in vocational high schools. The six points are:

? Emphasis on the fundamentals of the specialist areas concerned;
? Development of education that can respond in an appropriate manner to industrial trends and changes in society;
? Development of education that nurtures and expands the individuality of each and every student;
? Establishment of partnership arrangements with local and regional communities and the world of industry;
? Promotion of liaison arrangements with institutions of continuing education;
? Development of a form of education that will invigorate the creativity and ingenuity of individual schools.

Against this kind of background, the report from the Curriculum Council, also issued in July 1998, set out the following points in connection with the basic direction of reforms in vocational education subject areas.

? With regard to subjects concerned with vocational education, in order to consolidate, on the basis of a lifelong learning perspective, the fundamentals of knowledge and skills required to enable people to function as specialists in the future, the content should be very carefully selected and put together, and at the same time, greater emphasis should be put on practical, experiential learning including experiments and hands-on learning practice.

? Every school should structure its curriculum so as give additional stimulus to creativity and ingenuity. At the same time, schools should take a fresh look at the composition of the subjects for study in vocationally related subjects from the perspective of broadening student choice with a view to revitalizing the diversity of student individuality.

? With the aim of responding to the need for qualified welfare personnel in the context of an ageing society, "Welfare" should be established afresh as a subject of study.

? With the aim of responding to the need for trained information and communications technology specialists in a society permeated by sophisticated information-related devices, "Information" should be established afresh as a subject of study.

? With the objective of reforming and strengthening education in vocational high schools, it is important to set up links with local communities and with the world of commerce and industry, establishing mutually cooperative partnership arrangements and developing educational activities that will underpin these links and partnerships.

? In the *Course of Study* currently in force, the educational content of the different subjects is given only in the form of headings, with an indication that high-level educational content will be delivered through textbooks and the actual teaching. Using this indication as a basis, specific mention should be made, in the *Course of Study*, of points to be taken into account with regard to the level and breadth of the content and ways of handling it.

(2) Changes in the procedures for revising the *Courses of Study*

As far as revisions to the *Courses of Study* that impinge on vocational education are concerned, the procedure to date has been that proposed revisions are first debated within the "Central Council for Education" and the "Council for Scientific and Industrial Education", the members of both these Councils being appointed by the Minister of Education. On the basis of the deliberations of these Councils, more specific debate takes place within the "Curriculum Council", thus enabling the results of the debate to be reflected in the *Courses of Study*. However, in 2001, as a result of the reorganization of the structure of central government, the various Councils concerned with education were combined, and at the present time are unified into the Central Council for Education. Within the Central Council, responsibilities are divided among 5 Subdivisions: the Subdivision on the Educational System; the Subdivision on Lifelong Learning; the Subdivision on Elementary and Secondary Education; the Subdivision on Universities; and the Subdivision on Sport and Youth. Vocational education is debated by the Industrial Education Specialist Group, located within the Subdivision on Elementary and Secondary Education. Furthermore, in addition to the Central Council for Education under the jurisdiction of MEXT, content concerned with vocational education is also debated within organs under the jurisdiction of the Cabinet, such as the Council on Economic and Fiscal Policy, the Council for Science and Technology Policy, and the Science Council of Japan.

(3) The composition of standard subjects within each vocational subject area

In the *Course of Study* currently in force, with a view to avoiding over-specialization in the composition of courses, Japan has adopted a policy of specifying broad, comprehensive designations of criteria in the curriculum and not going beyond fundamentals. In the course of study as well, this policy is still essentially followed, but in addition, a re-evaluation of the standard composition of courses has taken place, reforming and strengthening links with vocational subjects in an effort to respond to changes in the industrial structure of the country.

Moreover, provision has been made to encourage the establishment, depending on the circumstances of local areas and schools, of new types of courses and multi-disciplinary courses, straddling several academic disciplines. This development is already happening and is generating a great variety of courses.

(4) The composition of subjects

The number of subjects shown in Course of Study are 29 in Agriculture , 60 in Industry, 17 in Commerce, 20 in Fisheries, 19 in Home Economics , 6 in Nursing , 11 in Information , and 7 in Welfare respectively. This makes it possible to put together a very

varied curriculum which will be able to respond to a range of abilities and aptitudes among students as well as to changes in society. In addition, with the exception of Nursing, it is possible for students themselves to build up topics, in a comprehensive and developmental way, on the basis of the fundamental concepts studied in each course. In this way, individuals or groups of students can study to acquire further knowledge or to acquire the specialist knowledge and techniques required to obtain vocational qualifications. As a specific way of achieving these objectives, "Topic-based Research Subjects" can be constructed with a view to deepening vocational education.

It should also be noted that "Information" is included as a compulsory subject in general courses.

The learning objectives and content of each subject are specified in the *Course of Study*, and the use of textbooks based on these specifications is obligatory under the School Education Law. Textbooks can be divided into commercially produced textbooks that have completed the authorization process carried out by MEXT, and textbooks produced directly by the Ministry, which holds authorship rights. Textbooks other than these can be used only in special circumstances, as for example when there is no suitable textbook available.

(5) Standard credits allocated for each subject and subject area

In order to graduate from high school, students must obtain a total of 74 or more credits, including as compulsory general subjects Japanese Language, Geography and History, Civics, Mathematics, Science, and Information. These compulsory general subjects account for 31 credits, but under exceptional arrangements, in the area of vocational courses, having regard for the actual circumstances of the student or the special nature of the course concerned, it is possible, where this is seen as particularly necessary, for some of these compulsory credits to be cut. Also, it is necessary for students taking vocational courses to acquire a total of 25 or more credits, but it is possible to include in these credits, up to 5 credits in a foreign language for students of commerce, and in the case of other courses up to 5 credits in a number of general course subjects subject to the student fulfilling the study objectives in his main course of study. One credit is composed of 35 credit time units, and one time unit lasts for 50 minutes.

(6) High school-college or university articulation in vocational education

Accompanying the changes in the social environment that embraces school education, and seen in such phenomena as an ageing population and a falling birthrate, new patterns and modes of action for institutions involved in higher education such as high schools and universities are currently being considered. As an example, in a report

entitled "Concerning improvements in articulation between elementary and secondary education and higher education", issued in 1999 by the Central Council for Education, we can find the following sentences concerning career guidance and study guidance corresponding to the ability, aptitudes, motivation and interests of high school students: "In high schools, there is a need to implement study guidance and career guidance that is based on a careful forecast of future career paths and job selection. There is also a need for appropriate guidance concerned with the subjects to be taken by individual students in line with future prospects of those students. Furthermore, there is a need, after gaining the cooperation of companies and university teaching staff, for the provision of practical, first-hand information on such subjects as the specific content of higher education, the relationship to future job selection, and working life and the nature of companies, and for the expansion of opportunities for work experience or trial entry to university." Looking in addition at ways of promoting mutual understanding between senior school and university personnel, the report comments as follows: "Greater effort should be put into promoting, as a pilot venture, interchange between high schools and universities, so that university teaching staff are invited into high schools to introduce their academic specialty or give a lecture, while on the other hand, school teaching staff are invited into universities to assist university staff members with teaching." With this suggestion as a stimulus, as explained later in this paper, many patterns have emerged, attempts are being made in a number of places to establish articulation between high schools and colleges or universities, staff from the respective institutions meet together by prefecture, and devices such as "liaison articulation meetings" are being established with the aim of exchanging information and deepening understanding.

In recent years in the area of vocational education, accompanying rapid change in the structure of industry and the structure of employment, the demands from the industrial world are that workers should be educated to a high level of ability, and the expectations are of specialist education within the field of higher education. In this context, a pressing issue that has to be considered from now on is that of how secondary education connects with and leads on to post-secondary education in the area of technical and vocational education. There are a number of possible configurations, and efforts to establish connections between vocational high schools and institutions of higher education, with universities at the top of the list, are already expanding.

(a) The present state of articulation between high schools and colleges or universities in Japan.

According to a survey carried out by MEXT, as can be seen in Tables 1 and 2 showing

by category of school the number of implemented cases of articulation between high schools and colleges or universities throughout Japan in fiscal years 2003, there has been a rapid increase in the number of such cases in recent years.

Table 1 Number of high schools from which students were formally registered on, or audited university lectures or attended open lectures

《Totals for fiscal year 2003》

public schools	447 schools
private schools	80 schools
national schools	2 schools
total number of schools	529 schools

Table 2 Number of high schools which invited university teaching staff to give a lecture or introduce their academic specialty

《Totals for fiscal year 2003》

public schools	1453 schools
private schools	211 schools
national schools	11 schools
total number of schools	1675 schools

With regard to the content of arrangements made within universities, these cover a very wide range, including participation in or observation of (mock) classes and (mock) seminars for high school students; experiments, hands-on practical work; concentrated lecture courses; collaborative classes and lectures; and open lectures, open campus days and summer camps. We can find examples of students being admitted to university on a trial basis, as well as completing particular courses and auditing courses. Ways of recognizing student achievement include a course completion certificate, award of a university credit for experiential work or auditing, and award of a credit gained through success in an examination. In the case of private universities, there are cases of recognition of a credit after entry, and in the case of high schools, there are many cases of a high school credit being recognized after completion of a set number of hours at a university or comparable institution.

A high school-college or university articulation project implemented through a satellite system operated by the Educational Technology Development Center of Tokyo

Institute of Technology has also been the focus of much attention as a new experiment searching for ways to link with large numbers of high schools.

On the other hand, as far as the content of arrangements within high schools is concerned, there are cases of lectures and demonstrations by visiting university staff. However, at the present time, very many such arrangements are still at an exploratory stage, and do not go beyond experimental projects; in order to move on from this stage to that of full-scale projects, an indispensable prerequisite is a thorough examination of such matters as curricula, selection procedures, evaluation systems and so on, in both high schools and universities.

Table 3 Establishment of liaison articulation meetings between high schools and universities

	2002-03	2003-04
Public	36 prefectures, 3 cities	11 prefectures
National	3 prefectures	1 prefecture
Private	25 prefectures	6 prefectures

Furthermore, the state of establishing liaison articulation meetings is as shown in Table 3. The specific content of such meetings includes the following examples: the exchange of information on educational content in universities, also procedures for admission by examination (and by recommendation), and educational practice; curriculum development; joint high school-university open lectures and classes; support for university supplementary classes; admission arrangements to university for graduates of specialist high schools; explanations of the content of specialist subjects at specialist high schools; and the content and ways of completing the study of the content of specialist education at universities.

(b) Patterns of high school-colleges or university articulation in vocational education

As far as patterns of high school-college or university articulation in vocational high schools are concerned, these cover a wide range; sample patterns are as listed below.

① Articulation on patterns of college or university entrance examinations (examinations held within a specific framework, recommendation-type examination, Admissions Office entrance examinations, etc).

② Visits and attachments to high schools by college or university staff, special lectures at universities, etc.

③ Contact with specialized training colleges for students who are still studying in high schools (double schooling, etc).

④ Articulation that involves matched of college or university examinations and lectures in high schools by visiting college or university staff, or to special college or university examination provisions (articulation with high schools attached to private universities).

⑤ Articulation using communications media.

The various articulation patterns cover the kind of examples listed above, but programs with a continuous specialist curriculum linking high schools to community colleges and universities as happens with the Tech-Prep programs in the U.S.A. are rarely seen in Japan.

(c) The present state of high school-college or university articulation in vocational education.

In the vocational courses found in vocational high schools, i.e. in Agriculture, Industry, Commerce, Nursing, Fishery, etc., and also in general high school courses, in many cases, various different types of projects are being carried on, all aimed at linking high schools with universities.

With regard to high school-college or university articulation within the area of vocational education, a wide diversity of issues have been reported in the context of projects implemented in different parts of the country. Many of these have been concerned with career guidance or preparatory study in high schools, with supplementary classes in universities, or with study of the nature of the curriculum in both high schools and universities; efforts are now being made to seek solutions to the problems that have emerged. For example, since 1996, the Faculty of Engineering of Niigata University, with the enthusiastic involvement of the entire faculty, has been getting to grips with the problems outlined here, implementing a special university admission framework aimed at students from technical high schools, and carrying out follow-up investigations; regular discussion meetings are held with vocational high schools on a range of issues. Furthermore, with regard to learning support, the university took the following view: “In the case of vocational high school graduates who have ability and definite targets (motivation), with just a very little help in terms of supplementary tuition with the subjects in which they need to gain credits at university or high school, they are able to get sufficiently good results at university, but if they stumble at the beginning, then it is difficult for them to recover.” On this basis, supplementary tuition was provided in such subjects as English, Mathematics, Physics and Chemistry, and their grades were successfully raised. Moreover, not only in the case of Niigata University, but also in the case of other articulation projects between

vocational high schools and universities, it has been reported that vocational high students who have motivation for vocational education show a high degree of enthusiasm for study, and by implementing measures such as supplementary tuition, their results at the time of graduation are extremely high.

(d) Future issues in the area of high school-college or university articulation

As will be clear from the above, high school-university articulation is a matter of great significance and needs to be positively promoted in the future, not only in terms of energizing vocational high schools and further strengthening vocational education, but also from the perspective of generating student enthusiasm for learning and formulating comprehensive career guidance. With the aim of further promoting this agenda, there is a need to clarify the various issues that have resulted from practice to date, and undertake an examination of policies that will lead to a solution of outstanding problems.

In addition, the issues identified in practical case studies to date can be categorized into three categories in terms of their place of origin: 1) in high schools, issues include progression to university, the composition of a special educational curriculum aimed at continuing education, the desirable form of career guidance matched to the many different career aspirations of students, and the expansion and strengthening of staff study training in universities; 2) in universities, issues include the form of the entrance examination (recommendation-type examination, special framework-type examination, AO-type examination), the links between the university curriculum and specialist education, supplementary tuition, and positive involvement with high school education; and 3) issues common to both high schools and universities include the promotion of interchange between teachers aimed at high school-university articulation, the promotion of articulation with the industrial world, local regions and the educational world, the desirable form of the development and evaluation of a continuing specialist education curriculum in high schools and universities, and an assurance that tuition fees can be found for tuition in both sets of institutions.

(7) Recent trends in vocational education

With regard to promotion policies for vocational education in high schools, a number of specific examples can be cited, including the following: curriculum reform (putting stress on the foundations of specialist education, expanding choices available to students, responding to changes in society and trends in the industrial world), financial support for setting up facilities and equipment for experiments and practical work (3.665 billion yen in the 2006/07 fiscal year), training of teaching staff (training courses

for persons in charge of guidance, courses to assist with industrial education practice in high schools, temporary study of industrial education at a university within Japan), expansion of university admission by recommendation and by selection of vocational high school graduates in the context of the university admission process, and survey investigation projects (promotion of articulation between vocational high schools on the one hand and elementary and junior high schools on the other, encouragement and support for learning by making things, organization of an all-Japan vocational education fair). In addition, from the 2003 fiscal year, there have been examples of "aim to be a specialist" (super vocational high schools) designated projects, and from the 2004 fiscal year, support for Japanese-type dual system projects in vocational high schools.

(a) "Aim to be a specialist" (super vocational high schools) designated projects

This project, carried out under the heading "Aim to become a specialist" at designated vocational high schools that follow special procedures, functions in such ways as incorporating leading-edge technology into the education that students receive, or by laying particular emphasis on learning concerned with traditional industries; the aim is to conduct research and development that will contribute to the improvement of the curriculum concerned with bringing up people who will become specialists in the future. In fiscal year 2006-07, 36 schools have been designated.

(b) Japanese-type dual system projects in vocational high schools

With regard to effective methods of introducing the "Japanese-type dual system" (a human resource development system linking education and practice) into vocational high schools, the aim of implementing these projects is to acquire verifiable data. In fiscal year 2004-05, there were 15 designated districts and 20 participating schools, and in fiscal year 2006/07, there were 5 designated districts and 5 participating schools. The period of designation in each case was 3 years.

(8) Other

In addition to the examples listed above, with the aim of ensuring the content acquisition of vocational subjects, as well as putting more emphasis on hands-on study such as experiments and practical studies, and being able to replace practical studies as understood up to now with work-based experience (internship system), other examples include raising the effectiveness of study by enlivening the activities of home-based projects and school agricultural clubs. In addition, with a view to implementing, in accordance with the actual state of communities, schools and students, educational activities that display creativity and ingenuity in the form, for example, of

cross-curricular and comprehensive learning as well as learning that is based on students' interests, it has been decided that up to the time of graduation, between 105 and 210 credits are to be set aside as "comprehensive learning time".

2-2. Technical Colleges

First established in 1962, technical colleges are higher-level vocational education institutions which have as their objective the education and training of middle-level technicians who can respond to changes in the current social climate, specifically to the growing sophistication of industrial structures and changes in employment structures. The great majority of them are national colleges of engineering, but some specialize in the mercantile marine field or in telecommunications engineering. Unlike junior colleges, technical colleges accept students after completion of lower secondary school and offer a 5-year course centered on specialist, practical training. As institutions, technical colleges are classified as being within the higher education sector, so although for the first three years after entry, students are the same age as those who proceed straight to high schools, the content of their studies does not fall within the scope of the official Course of Study for High schools. Instead, under the general conditions governing the establishment of these institutions, students are required to attend for 210 days a year, and specifications are laid down covering the common general subjects and the specialized subjects in each course, as well as the total number of credits attached to each.

In the 2006 school year, there were 64 colleges of technology in all; of these, 55 are national, 6 are public, and 3 are private. They contain a total of around 59,380 students, of whom about 49,768 are male and 9,612 are female.

2-3. Junior Colleges

According to the School Education Law, the primary objective of junior colleges is "to carry out teaching and research in depth in the arts and sciences and to train students in the abilities required for work or for practical daily living." Like colleges of technology, junior colleges are classified as tertiary-level vocational education institutions, and the education provided in these institutions has two main aspects, developing and nurturing specialist abilities for a range of vocations and professions, and offering high-level general cultural education. There are, however, significant differences from technical colleges, such as the fact that over 90% of the students in junior colleges are female. Courses are 2 to 3 years in length, and as in the case of high schools, advanced courses are offered at some colleges.

As in the case of technical colleges, students at junior colleges are required to attend for 210 days a year, and specifications are laid down covering such matters as the composition of the curriculum, duration of teaching time, the number of students who can be taught at one time, teaching methods and so on. As of the school year 2006, there are 468 junior colleges, with a total of about 202,254 students. The main courses found in junior colleges are Home Economics, Education, Humanities, Social Science, Health, Engineering, Arts, General Culture, and Agriculture. However, in junior colleges too, there has been an increase in recent years in the number of women with specific vocational interests, consequently there have been changes in the direction of providing more vocational-type courses, and even in the general culture courses, vocationally oriented subjects are increasingly being included.

Advanced courses in junior colleges are aimed at junior college graduates, and set out to offer in-depth teaching and research opportunities under special headings. A wide variety of education is provided in many different subject areas centered on the arts, home economics and education.

2-4. Specialized training colleges

According to the School Education Law, the objective of specialized training colleges is "to develop the abilities required in vocations or professions, or in everyday life, or to enhance the general level of culture in their students." Unlike universities and junior colleges, they are very strong advocates of pragmatism, and institutions with their own distinctive characteristics offer a wide range of courses to develop specialized and daily living skills as well as facets of general culture. In terms of vocationally related skills, courses are very highly differentiated, and with their flexibility in being able to respond immediately to developments in science and technology or rapid changes in the industrial structure, these colleges constitute a unique type of vocational education institution able to meet the needs of both society and students. Large numbers of students can be found in particular in courses related to health care, arts and general culture, as well as engineering.

Specific regulations related to the establishment of these institutions state that (1) Courses must be one year or more in length; (2) The number of teaching hours in a year must be 800 or more (spread over 2 years in the case of evening courses); (3) A college must have an enrolment of 40 students or more. Looking at the actual situation of these colleges, over 60% of all colleges provide courses with 1,000 or more teaching hours in a year; courses of this intensity are found particularly in agriculture, health care-related, and hygiene-related areas.

Since specialized training colleges were first systematized in 1975, the number of

institutions has continued to expand, and the combined total of national, public and private colleges is 3,441 as of the school year 2006. In this same year, the number of registered students has reached about 750,208. In terms of the categorization of courses, there are three types: upper secondary courses aimed at junior high school leavers, specialist courses aimed at high school leavers, and general courses with no special academic entry requirement. Entrants to the upper secondary category are required to have completed junior school or to have an equivalent qualification, and most of the students in this category have completed junior school immediately before entry, but in recent years, there has been an increase in the number of students who have dropped out of high school. Students who complete three years of study in this category are qualified to transfer to courses in the specialist category, and graduates of upper secondary courses in specialized training colleges designated by the Minister of Education are considered as equivalent to high school graduates and permitted to apply for university entrance.

Courses in the specialist category are considered as post-secondary, and constitute the core category, comprising about three-quarters of all courses in specialized training colleges. Entrants are required to be high school graduates or to possess an equivalent qualification, and new high school graduates constitute the majority. Most courses are 2 years in length, but there are also one-year and three-year courses.

General courses set no restrictions regarding entrance qualifications, and provide a wide range of opportunities for lifelong learning.

The educational content in specialized training colleges is divided into 8 fields, and in each field there are a wide variety of courses.

2-5. Miscellaneous Schools

Under the School Education Law, miscellaneous schools are designated as providing "education analogous to school education". Very different from the schools considered up to now, largely systematized on the basis of a linear progression, miscellaneous schools really do embrace a great variety of all kinds of educational institutions.

Private miscellaneous schools are established by permission from the prefectural governor of the prefecture in which they are located, while public miscellaneous schools come under the jurisdiction of the prefectural board of education.

Entrants to miscellaneous schools are required to have completed lower secondary school, and in principle the length of a course is 1 year or more, but in the case of subjects that can be acquired easily, there are short courses of 3 or 6 months. The aim of the schools is to impart specialized skills to students, and there should be a total of 680 or more teaching hours in a year.

As of the school year 2006, there are a total of 1,729 miscellaneous schools, of which the majority, 1,715 schools are private, with 31 public-sector schools. The total number of students is about 149,934, and more than half of these are attending "preparatory" schools (either for examination preparation to proceed to a higher level of education or for individualized tuition to supplement their ordinary school classes) or driving schools. Of the remainder, significant numbers of students can be found in 4 main categories of courses, namely general culture courses, centering on foreign language teaching; commercial-type courses, including word processing, accounting, bookkeeping and other office skills; health care-type courses involving nursing skills; and home economy-oriented courses such as Japanese and Western dressmaking, knitting and cookery. However, the number of schools and students in this category is decreasing in line with the shift to specialized training colleges.

3 The vocational training system

There are a number of vocational training facilities under the control of various Ministries and Agencies, providing vocational training that is not based on school education. Examples are the public-sector vocational training facilities under the jurisdiction of the Ministry of Health, Labor and Welfare, or the vocational training facilities under the jurisdiction of the Ministry of Agriculture, Forestry and Fisheries. Although these institutions play a vitally important role as vocational education and training facilities, they are not educational institutions under the control of MEXT, so they have hitherto been viewed as functioning in an entirely separate category. However, with a view to systematizing and further improving and developing vocational education in Japan, it has become necessary to examine and discuss them from a comprehensive perspective. It is against this background that this paper will now give an overview of public-sector vocational training facilities and agricultural polytechnic colleges as being representative of institutions of this type in Japan.

3-1 Public-sector vocational training facilities

Vocational training facilities coming under the jurisdiction of the Ministry of Health, Labor and Welfare include polytechnic junior colleges and colleges as well as polytechnic universities. The legal basis for their establishment is the Law to Promote and Develop Vocational Ability, and their objective is to raise and develop the level of ability in the labor force.

According to the above law, polytechnic junior colleges are set up to run long-term and short-term high-level vocational training courses, while polytechnic universities, in addition to providing long-term and short-term high-level vocational training courses,

also develop and enhance specialized and applied vocational abilities through advanced level vocational training. Ministry of Health, Labor and Welfare regulations specify the nature of their functions and designate them as institutions providing long-term vocational courses. Also, the polytechnic universities have the aim of contributing to the smooth implementation of public-sector and other vocational training, and to the furtherance of the development and enhancement of vocational abilities. With this aim in mind, they target people who wish to become vocational training instructors or persons in charge of vocational training at both public-sector and licensed vocational training facilities, equipping them with the necessary skills and knowledge. In this way, they fulfill their functions as specified in Ministry of Health, Labor and Welfare regulations. In addition, they undertake research and investigations concerned with the development and enhancement of vocational abilities from a comprehensive perspective.

Mention should also be made of public-sector vocational development schools administered by prefectural and municipal governments, as well as licensed vocational training facilities operated by private companies on the basis of a license from the prefectural governor certifying that they are run in accordance with the criteria specified by the Ministry of Health, Labor and Welfare. In the case of both these types of facilities, the content of the training is designed to be immediately usable; the areas of courses include OA, accounting, dressmaking, machinery, metal processing, architecture, car maintenance, electrical engineering, carpentry, welding, and painting.

The courses in the facilities described above are in the process of gradually changing from, in the first instance, courses aimed at new junior high school and high school students from the perspective of the future careers to courses aimed at people already in employment or who have lost their jobs, and in the second instance, from courses centered on initial training to courses focusing on retraining or enhancement of existing skills.

3-2 In-company vocational training

In-company vocational training is vocational training aimed at persons employed by the company in question, and is an integral part of employment, with the objectives of contributing to fulfillment of the company's objectives and to the career development of its employees. The relevant law, referred to above, stipulates that the basic concept of in-company vocational training is "that it should be carried out in a systematic and graduated manner through the entire period of employment, with a view to enabling the company to respond, in accordance with the hopes, aptitudes and experience of individual workers, to such factors as changing trends in employment and industry,

technological progress, changes in the structure of industry, and the internationalization of economic activity,." Various kinds of subsidies are available for approved training.

Over the past years, in-company vocational training has been a major driving force in industrial development in Japan, but in recent years, against a background of growing scientific and technological sophistication as well as rapid and severe changes in the structure of industry, stress is being laid on the need to strengthen vocational education within universities and other institutions of higher education, and to enable them to carry out the function of re-educating adult members of society.

3-3 Agricultural Polytechnic Colleges

Agricultural polytechnic colleges are designated in prefectural ordinances and correspond to study and research facilities for farmers as specified in the "Fundamental Plan for Cooperative Agriculture Dissemination Activities" on the basis of the "Law to Promote the Improvement of Agriculture". Colleges are composed of two sections, an "Initial Training Section" providing long-term study, training and education on a residential basis for rural youth who constitute the next generation of farmers and agricultural workers, and a "Study and Training Section" providing short-term study and training education programs for rural community leaders and people already employed in the agricultural sector. The "Initial Training Section" aims at high school graduates (or persons who are deemed by the prefectural governor to have equivalent or higher academic ability), and programs in this section last on principle for 2 years. Specialist divisions of the curriculum include agricultural production, horticulture, stock raising and agricultural life. Advanced courses corresponding to each of these divisions include rice farming, vegetables, dairy farming and farming life. All necessary arrangements regarding the study and education system, production practice facilities (including education and accommodation, physical training facilities and experimental facilities), also the curriculum and content are specified in detail in the "Fundamental Plan for Cooperative Agriculture Dissemination Activities" referred to above. The two-year initial training period comprises 2,800 or more study hours, with 50% devoted to "lectures, experiments and practice exercises" and 50% to "practical field work". In addition, 10% of time is set aside for general education subjects such as "Daily life and the economy", "People and society", "Foreign languages", and "Physical education", with the aim of fostering broad-based human development and not simply specialized training. Selection of entrants is by examination and interview, and in many cases, applicants are admitted on the basis of recommendations. On the basis of a regulation of the National Personnel Authority, graduates are considered to have qualifications equivalent to graduates of junior colleges.

As of 2001, there were 43 prefectural agricultural polytechnic colleges, housing a total of about 2,000 students, and 3 private colleges with a total of about 110 students. In recent years, however, colleges have failed to reach their admissions quota, and admission is on average about 75.8% of capacity. About 50% of entrants come from agricultural high schools, and about 30% are from non-farming backgrounds. The percentage of graduates from agricultural polytechnic colleges who immediately find work in the agricultural sector is declining, but there are signs of a gradual increase in the numbers of those who work in other areas for a time and then move into agriculture. The curriculum content is reviewed almost every 10 years, and recently courses in areas such as biotechnology and information-related topics have been strengthened.

In addition, in recent years, many colleges have started to implement hands-on, learning experience programs for pupils and students at elementary, lower secondary and high schools as well as study and research programs for those seeking employment in agriculture.

3-4 Other vocational training institutions

Among vocational training institutions coming under the jurisdiction of, or having a special attachment to, other government ministries and agencies, some examples are given below:

Ministry of Economy, Trade and Industry: Polytechnic Colleges for Small and Medium-Sized Enterprises; International Institute for Studies and Training.

Ministry of Health, Labor and Welfare: National Rehabilitation Center for the Disabled; National Institute for Public Health; The National Institute of Health Services Management.

Ministry of Land, Infrastructure and Transport: Civil Aviation College; Marine Technical College.

All the above institutions provide short-term courses at advanced secondary level directly linked to the needs of employment in the various areas concerned.

Among polytechnic colleges with special recruitment functions, mention should be made of the Aeronautical Safety College (2-year course for high school graduates or 1-year course for university graduates), the Japan Coastguard School (1-year course for high school graduates), or the Japan Coastguard Academy, the National Fisheries University, the Meteorological College and the National Defense Academy in Japan (all offering a 4-year course to high school graduates), and finally the National Defense Medical College (6-year course for high school graduates). Institutions providing courses of 4 years or longer aim to train management-level or senior specialist staff,

while those offering shorter courses aim to train middle-grade staff.

Colleges offering in-service training include the National Tax College, the Social Insurance College, the Local Autonomy College, the Fire and Disaster Management College, etc.

4 Issues to be resolved within vocational education

Up to this point, this paper has provided an introduction to the system of vocational education in Japan and to the content of vocational education as given in vocational courses in high schools. It will have become clear from this that there are still many unresolved issues to be faced.

After the end of World War II, there was a large and steep increase in the percentage of young people going on to high school, and the role of high schools as providers of vocational education in the latter part of secondary education became very significant. However, in the context of a social climate of opinion that favored general courses in high schools, the percentage of students on vocational courses, taking 1970 as a turning point, showed a steady annual decline, and this situation is still continuing today. Many different attempts have been made to try and find a way out of this situation, including the introduction of courses designed to match social needs or student interests, a shift to comprehensive courses, and mechanisms to enable the acquisition of vocational qualifications or to facilitate entry to institutions of higher education such as universities through recommendations or the creation of special categories, but given also the influence of the rates of success in finding employment, interest in vocational courses continues to decrease. Furthermore, against the background of the mass popularization of higher education, with more than 50% of high school graduates going on to university, a phenomenon observed in recent years is what is called “double schooling”, whereby students, while they are still enrolled at university, in order to gain an advantage in seeking employment, enter a specialized training college with the aim of seeking a vocational qualification. This kind of trend, as well as showing the importance of vocational education in the latter part of secondary education and afterwards, also throws into relief the problems areas in higher education institutions. In addition, other social phenomena observable in Japan today are on the one hand the noticeable increase in young people known as “NEETs”, i.e. young people who are not currently engaged in employment, education or training, and on the other hand, that of young people known as “free workers”, who after graduation from university, work part-time in various jobs without finding settled employment. With a view to tackling the kind of problems outlined here, there is a need to undertake a very thorough examination of the system and content of vocational education and training from a

comprehensive perspective that embraces the period from high school through university, and to promote the importance of a career education that aims to cultivate a work-oriented consciousness in young people. Career education focusing primarily on vocational experience in the form of internships within companies is already being implemented as a policy in junior high schools and senior high schools, but a curriculum comprising the study that should take place before and after the internship has not been sufficiently developed, and this remains an unresolved issue. On the other hand, in the present climate, in which, as a result of the declining birthrate, universities and junior colleges are failing to meet their target in terms of new entrants, there is a need to look again at vocational education in terms of continuing education for adults.

III In-service education and training for teachers

In the educational field, a legal basis for in-service education, study and training exists only with reference to persons with the status of educational public servants. I will therefore use them as a case study to describe the main points of the study and training system as it currently exists.

The guarantee of a right to undertake study and training is provided by a stipulation in the "Law for Special Regulations Concerning Educational Public Service Personnel", which states that[i] "Educational Public Service Personnel are required to make unremitting efforts to carry out research and training activities so that they can fulfill their professional functions, and opportunities for them to do this must be provided."

With regard to the cost of such training activities, depending on the kind of activity involved, all or part of the cost may be covered by a subsidy from the national government or from local government bodies.

1 Types and systems of training

There are many different types of training aimed at different categories of people; they include training for newly appointed teachers, training for experienced teachers, training for school principals and deputy principals, training in their specialty for teachers of specific subjects, training concerned with educational topics in the area of information education, long-term training at an outside institution, in-school training, and so on. The different types of training are implemented through a variety of systems and mechanisms at national, prefectural and municipal level.

2 Training content

The training programs that are implemented are also very varied in terms of both content and methodology, depending on the objective of the training program concerned,

and include lectures on school administration, subject teaching, career guidance, information education, education for international understanding, and human rights education, also research on teaching methodology, study visits to private companies, and so on.

3 System of leave to attend graduate courses

From the point of view of providing encouragement and support for the individual and autonomous research activities of teachers, MEXT has introduced a system to enable sufficiently well-motivated practicing teachers to obtain leave of absence from their teaching duties, with a guarantee that their professional and legal status will be safeguarded, in order to undertake long-term study and research at a graduate school or comparable institution within or outside Japan. The system of study leave for graduate school training was launched in 2000, and began to be implemented from 2001. Persons entitled to apply for leave under this system are those employed as teachers in national or public educational institutions from kindergarten up to high school level, including special schools for those with special educational needs, and who fulfill specific requirements such as possession of a first-grade teacher's license or a special teacher's license. The type of research and study permitted under the system is full-time study at graduate school or a comparable institution with the aim of obtaining a specialized diploma, degree or certificate. The length of study is from 1 to 3 years, and the award's status as a public servant is guaranteed throughout this period, but salary is not paid.

IV. Summary

As shown in this paper, vocational education in Japan covers an extremely wide and diverse range in terms of the educational level and the targets of the education, from vocational education in the latter part of secondary education, as found in senior high schools, upper secondary courses in specialized training colleges, and vocational training colleges, to higher education level vocational education as found in junior colleges and colleges of technology, to post-secondary vocational education as found in post-secondary courses in specialized training colleges, polytechnic colleges and polytechnic junior colleges, through to vocational education aimed at adults or taking the form of continuing education, as found in general courses within specialized training colleges or in courses in skill development centers. Within this wide range, senior high schools have come to play a very important role as institutions providing vocational education in the latter part of secondary education, against the background of the very large numbers of students going on from junior high school to senior high

school. However, in recent years, their role has unavoidably changed as a result of the rise in the number of students going on to higher education.

Moreover, while up until now, in-company vocational training in Japan has made a very significant contribution to the development of human resources, this is becoming a burden for the management of companies in a severely competitive environment, and there is a growing demand for human resource training aimed at persons who can step in and do a good job at any time in the various levels of education that have characteristics of pre-vocational education, both in vocational education at secondary level as well as at higher education and post-secondary education levels. From now on, there is a need to make a comprehensive study of the development of a curriculum aimed at human resource development at each level of vocational education from secondary education through higher and post-secondary education.

---

[i] Note: The English text is not a formally agreed translation of the law in question.

Lao PDR

1. Background

Lao People's Democratic Republic (Lao PDR) is a centrally located Southeast Asian country with a land area of 236,800 square kilometers bordering Vietnam in the east, Thailand and Myanmar in the west, China in the north and Cambodia in the south. About 75% of its area is mountainous and about 25% lowlands adjacent to the Mekong River, which runs for 1.800 kilometers along and within the Republic's western border. The country extends over 1,700 km in the north-south direction, with the widest part of the country from east to west, reaching 500-km and the narrowest part, only 150-km wide. It consists of 16 provinces, one special zone and the capital city, 141 districts and about 11.697 villages (National Statistic Bureau, 2000).

Laos has a population of approximately 5.5 million people, with a growth rate of 2,8% per year and 44% of the population is below 15 years of age. The population density of Laos is 23 persons per square kilometer and roughly 85% of the population lives in rural areas. The Lao PDR is an ethnically diverse country, with some 49 officially recognized ethnic / indigenous groups. These groups are predominantly concentrated in remote and / or inaccessible rural areas that have limited opportunities for economic development. The major cities are Vientiane, the capital, Savannakhet, Pakse and Luang Prabang.

Since 1986 Lao P.D.R. is in a transition period from a central economic into a market economic system. Reforms so far contributed to economic growth and hence poverty reduction, but since the Asian crisis reforms and economic growth are slowing down. Insufficient frame conditions and a lack of qualified executive personnel hamper economic growth. The government's anticipated annual economic growth of 7% is questionable. The external direct investment is by far lower than the transfers through official development aid (ODA)[1].

During the last 5 years Laos has achieved an average economic growth rate of about 6% per annum. However, the country's annual per capita income still remains low at around 310 USD and ranked among the least developed countries in the world. The country relies heavily on external aid. According to the 1998 UNDP Human Development Index, the Lao PDR ranked 136th out of 174 countries investigated. Its development level falls between that of Myanmar (131st) and Cambodia (140th). Social sector indicators are low with life expectancy only 55 years, a total fertility rate of 6.7 per woman, high maternal and infant mortality rates, and chronic malnutrition of children. About 38% of the Lao populations live below the poverty line (NPEP, Sep 2003)[2]. Poverty is widespread in the country and tends to be more heavily concentrated in small ethnic / indigenous communities, who live mainly in mountainous regions far from urban centers.

The government of Laos seeks to engage the process of globalization, favoring economic growth towards a market-oriented economy through its gradual integration into

[1] For 1998-99, external direct investment reached 56,3 million USD, whereas ODA amounted 346,9 million USD. Exports reached 323 million USD for the fiscal year 1999-2000, and imports 540 million USD (figures from Country Strategy Paper Laos, Vientiane, June 2002, p. 6).

[2] The National Poverty Eradication Programme (NPEP): A comprehensive Approach to Growth and Development. Eighth Round Table Meeting, Vientiane, September 2003.

ASEAN. This regional political and economic grouping, which tries to improve the terms of trade and economic cooperation of its member countries in the Asia-Pacific region, create many challenges for the Lao government to upgrade the education system. A remarkable progress in education has been made during the last 10 years. Between 1995 and 2001 alone, the adult literacy rate rose from 60,2% to 74%[3].

However, overall public spending on education has decreased from 13,9% share of the national budget (3,6% of GDP) in 1994-95 to 7,2% (=1,4% of GDP) in 1999-2000. The government plans to increase the share of the budget available for education to 14% by 2005[4]. With gradual economic liberalization and with increasing foreign investment, the education system is still far from satisfying the emerging human resources requirements. The graduates from the local training and technical schools have hardly reached the level of technical and managerial requirements of foreign companies and even local private companies operating in Laos.

2. National Provision of Education in Lao PDR

The education system of Laos consists of three types of education:

1) General education
2) Technical and vocational education
3) Higher education

2.1 General Education

- *Primary education* covers 5 years of schooling for children from 6 to 11 years old and is compulsory.
- *Lower secondary education* has the duration of three years of schooling and caters for children between 11 to 14 years of age.
- *Upper secondary education* comprises three years of schooling accepting children of ages 14-16.

After 8 years of primary and lower secondary education, students may enter Vocational Education.
After 11 years of primary and secondary education, graduates can choose either to continue their studies at Technical and Vocational Schools (11+2 or 11+3) or at the National University of Laos (NUOL) for higher education (11+5 to 7)[5].

2.2 Technical and Vocational Education

The TVET institutions offer two different levels of training: Skilled worker level and technician level.

Skilled worker level (8+3) or "Certificate level"
This level of programme is open to students who have graduated from year 8, the final year of lower secondary education, to receive certain skills (masonry, carpentry, tailoring,

[3] Country Strategy Paper Laos, Vientiane, June 2002, p. 22
[4] Country Strategy Paper Laos, Vientiane, June 2002, p. 14
[5] Ministry of Education, 2003-2004 Annual Report, July 2004.

hospitality, car mechanics, electrical, electronics). To obtain this skill level the training takes place 3 years.

Technical Level (11+2 0r 3) or "Diploma level"
This level of programme caters for students having completed the final years of upper secondary education or those gradates from the Certificate level. Entrance to these technical schools follows the same general procedure of quota system and examination as for the university.

2.3 Higher Education

After 11 years of schooling, students have a choice to enter the National University of Laos (NUOL), which is under the supervision of Ministry of Education (MOE). Academic studies in the university comprise mainly a first cycle of 1-2 years, called "foundation studies", followed by a second cycle of 4-5 years, called "professional studies" at the specific faculties (Education, Linguistics, Social Sciences, Economic and Management, Natural Sciences, Engineering and Architecture, Medical Sciences, Agriculture, Forestry, Law and Public Administration).

Upon graduation, the students of this 5-6 years programme receive a bachelor degree. The students enrolled in the NUOL are selected through

(i) a quota system, managed by the Ministry of Education through the provincial education services (PES), and
(ii) entrance examination organized by a national examination committee consisted of representatives from NUOL and MOE.

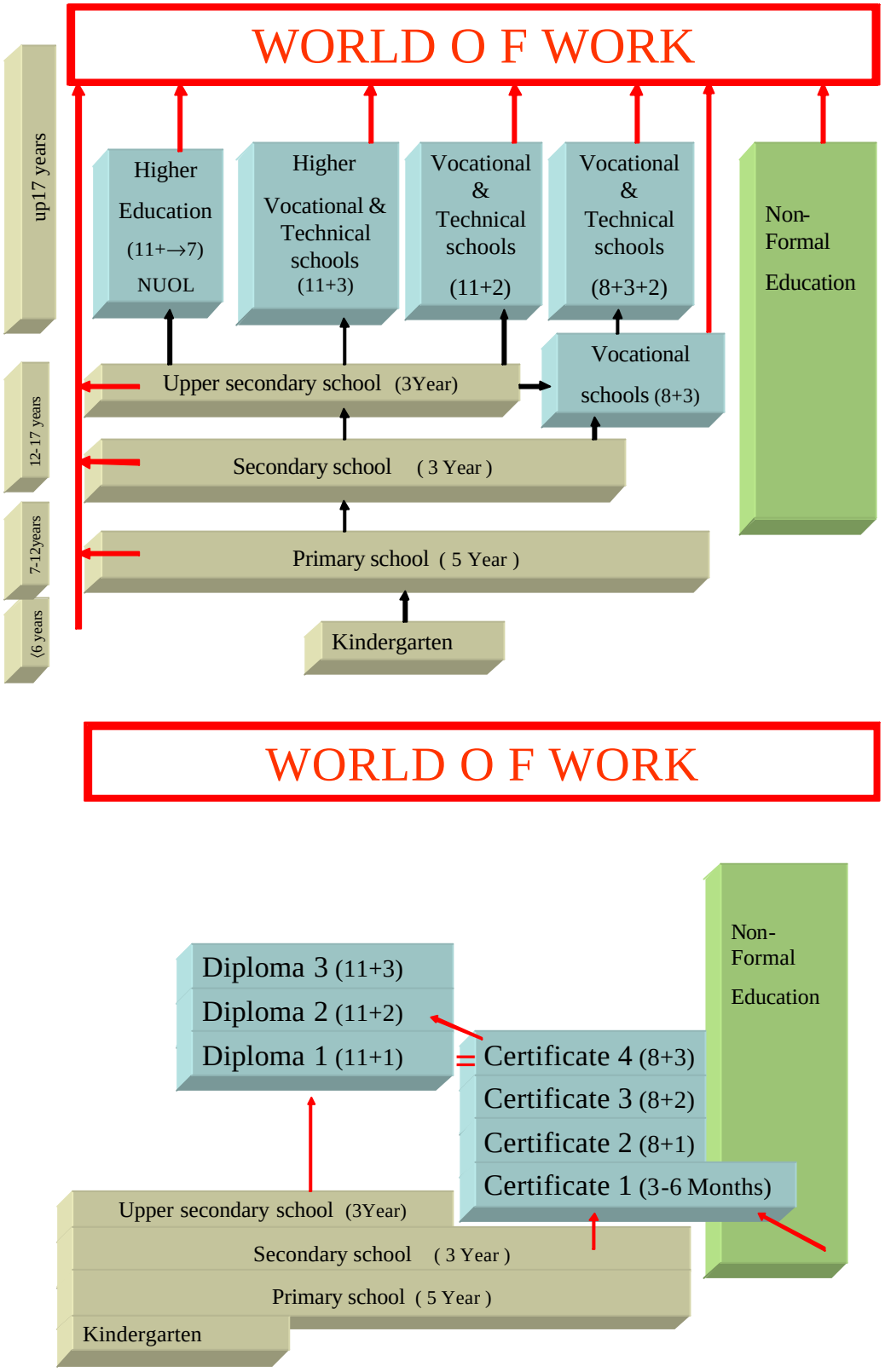
With the increasing number of high schools graduates each year (29.771 students for 2002-2003), NUOL has become a big recipient and the number of students enrolled exceeds it capacity, due to shortage of facilities and lecturers. In 2002, NUOL has expanded its branch in Champasak at km 9 in Pakse, offering the four specializations of Economic and Management, Education, English Language and Agriculture to 500 students per year. In 2003, NUOL has expanded its second branch in Luang Prabang, offering three specializations of Education, English Language, and Economic and Management to 400 students per year.

2.4 Non-formal Education

The Department of Non-Formal Education of the Ministry of Education is in charge of administering the non-formal education offerings in the country. The target groups for non-formal education are illiterate persons, school-age children who do not have the opportunity to study in the formal school system, students who have dropped out from school, and finally adults who wish to increase their level of vocation and education[6].

[6] Ministry of Education, Department of Non-Formal Education, July 2003.

Figure 1: Education System in Lao P.D.R



3. The Technical and Vocational Education and Training (TVET)

3.1 The provision of TVET

Currently there are more than 50 registered training courses offered by both public and private TVET institutions. These courses are taught in 47 formal TVE institutions (12 private) and 57 training centers with 12 public funded and 45 are run by private entities. The public and formal TVE institutions are supervised by 15 departments of 10 ministries and two mass organizations. The qualification level ranges from semi-skilled certificate to technician diploma.

In 2006, the Ministry of Education (MOE) has 10 technical and vocational schools (TVS) and 6 Integrated Vocational Schools. Other 14 TVS are under the supervision of other line ministries such as the Ministry of Public Health, the Ministry of Information and Culture, the Ministry of Agriculture and Forestry, the Ministry of Finance, Lao National Bank, the Ministry of Communication and Transport, the Ministry of Defense and the Ministry of Interior. Mass organizations such as Women Union and Lao Youth Union also have a number of its own training centers. The Ministry of Labour and Social Welfare has 5 skilled training centers under its supervision. Only 5 TVS are private.

The students enrolled in the public TVS are selected through
(1) a quota system, managed by the MOE and the provincial education services (PES),
(2) entrance examination, and organized by the MOE in collaboration with PES and PVS.

According to the ministry of education's regulation[a], about 40% of total enrolments come through the quota system, about 50% through entry examination, which is organised nation wide every year, whereas for the specific consideration approach it ranges between 10-12%. The latter approach is used in order to give a chance to students who come from poor/very low income families, those who live in very remote areas, ethnic minority, female and those parents have served and died for the country during the independent period. The VET institutions mentioned in this case has also to follow this regulation.

A National Training Council (NTC) was established in the year 2002, in order to build functional links between the industries concerned with vocational education, vocational and technical schools and companies that offer employment and need for a qualified work force. The National Training Council is under the auspices of Ministry of Education. The legal basis of the NTC is the Prime Minister Decree 35/PMO, dated 4 April 2002. There are 6 Trade Working Groups (TWG) which have very close links with NTC. These TWG have identified and proposed vocational standards which are necessary for the work performance in a profession. Currently, there are 8 vocational standards developed by the TWG and endorsed by the president of the Council. Following these standards, curricula, teaching and learning materials and personnel will be prepared.

The national Ministry of Education is considering merging the two parallel streams of Technical and Vocational Education and Non-normal basic skill education in just one

[a] Ministerial degree no 108 released in 1998

body, called *integrated vocational education and training system (IVETS).* Basically, IVETS is an approach to formal and non-formal vocational training which is taken place under one roof of a TVS. Both types of training could be undertaken under the modular form and the learning outcomes could be accumulated through using the credit collectable system. In this connection, prior learning experiences could also be recognized through pre-test examination. The main objective of developing IVETS is to effectively use both financial and human resources. Another aim is to help the non-formal trainees who wish to continue their education and training path up to the higher level. This could be realized through transferring the credit collected from the non-formal training into the formal training. By doing so, the learning times could be shorter than usual because of giving advance credit for what the trainees have obtained before. However, this would imply a large reorganization, as Technical and Vocational Education is decentralized to the provinces (PES), whereas the Non-formal Education centers come under the national Ministry of Education and the target groups of the two steams are different.

3.2 Problems faced by TVET Sector

(1) Imbalance between Undergraduate Students and Technical School Students

The total number of undergraduate students enrolled each year in institutes of Higher Education exceeds the number of students-trainees in Technical and Vocational Schools. In the academic year 2002-2003, the number of students at the National University of Laos (NUOL) and other higher public and private colleges was 25.270, while the total number of students at technical and vocational schools and training centers was only 19.507. These figures reflect the preference of students for academic studies at the NUOL and in private colleges. The figures reflect the fact that the chance to find a job upon completion of technical schools is minimal.

(2) The dubious quality of technical and vocational education

Despite of the growth in numbers of educational institutions and students enrolled, the output has not responded to the real need of public and private sectors in terms of quality and the level of work requirement. Local entrepreneurs in Vientiane expressed this concern during a stakeholder meeting held recently. The qualification of graduates is largely related to the facilities of schools where they have learned, and also to the technical equipment, the quality of teaching skills of teachers and curricula used for teaching. The students learn mostly the theory of subjects, but have little opportunity to learn the practical application of the subject they study. The teachers mostly use lecture session to transfer knowledge to students, who still use the memorizing method in learning. Though most curricula used in technical and vocational schools were accredited by the national Ministry of Education, very little monitoring and evaluating measures were taken. Curriculum development is not based on an occupational standard; it was developed by individual institution assessed by the Vocational Education Development Centre (VEDC) prior to submit to the MOE for approval. The educational inspection body practices very little on academic issues due to limited numbers of professional resource persons and budget. Each technical and vocational institution in both public and private issues the Certificate or Diploma itself. Students have no access to textbooks in Lao Language, due to lack of funds for developing and

printing. Most TVS do not have a library nor access to internet. Students use largely photocopies.
The main reason for the lack of qualified personnel is insufficient vocational education training (VET) of the labour force. Without significant investments in VET this age group has very limited chances for adequate training and employment. The same problem appears from the entrepreneurs' point of view as a lack of qualified personnel. Therefore qualified positions are occupied by qualified personnel from other countries in the region. HRD commission and Ministry of Labour forecast a training demand in industrial/commercial and technical profession of 35.000 training opportunities in 2010 (compared to 7000-8000 existing training opportunities in 2002/2003). [7]

Apart from the insufficient quantity of training opportunities the VET system is not sufficiently considering the needs of the labour market, as well as a lacking vertical and horizontal opening between various courses and training. Examination and certification standards are not yet sufficiently developed and are frequently not in accordance with the interest of the business sector.

(3) Facilities of Technical and Vocational Schools

The facilities of most technical and vocational schools are inadequate and out of date. Classrooms and workshops do not receive good maintenance or expansion, due to limited budget from the government and poor management capacity. The existing budget of the government for the school year 2002-2003 was 10,76% of total government budget is insufficient to cover the growing needs of the schools.

(4) Job counseling and placement, the need for the labour market

Up to now, the technical and vocational schools have no service for job placement of students after graduation. The students have to find themselves the job, which is suitable to their skills. One more factor contributing to the low rate of employment opportunity is that the graduates from the provinces usually do not return home, but try to find the job and live in capital city or in other larger cities.

In several workshops, it was stated that the local and international companies do generally not accept the quality of graduates. The technical and vocational schools have little contact or relation with local enterprises, in order to know the relevance of the skills in the labour market, the availability of jobs and training needs among the newly recruited staff. The students go for internship, in most cases for three months, only at the end of the course.

The graduates have more difficulties in finding a job, as the work requirements are much higher than before. Some have to move to other provinces, where qualification requirements are lower. As a result, the graduates earn less.

Around 200.000 young people enter every year the labour market, most of them without previous training. The Lao government has a national policy to organize labour for economic growth. But the fact, approximately 1.000 people per year find their job with

[7] Governments' HRD Strategy: Development trends and development expectations until 2020, VTE 10-12/12/2001

the help of the state employment service. In the fiscal year 2003-04, around 21.000 people have found their job with their own efforts. The total labour force is estimated at 2,7 million people between 15 and 65 years, out of 5,5 million people. Most of them have acquired their employment themselves. There are job offers from abroad mainly from Japan and Malaysia. The government tries to register "illegal job seekers", who go to Thailand from seasonal or permanent work[8].

4. Key National Policies and Practices

4.1 The National Policy

The key areas of intervention of the future National Poverty Alleviation Strategy will be to fight against poverty through:

- Human resources development
- Rural development
- People's participation[9].

4.2 Policies and practices of TVET

The objective of the Lao government is a significant economic upswing through HRD and economic reform measures, focusing on private sector promotion. In this respect the development of TVET is a key factor. Until 2020 each province should have at least on vocational school. Particularly the poorest provinces, catchments area of RDMA program included, are absolutely under-supplied. Migration of young people from these provinces to Vientiane or to neighboring Thailand or Vietnam is rapidly increasing. Simultaneous over aging of available labour force in these provinces is observed. The challenges for VET are:

- Political opening of the still state dominant VET politics, e.g. political dialogue and reform measures in NTC, recognition of private initiatives (promotion of private vocational schools).
- Establishment and financing of integrated (formal and non-formal) vocational schools as a country wide network
- Opening VET monopoly, recognition of further private vocational schools
- Incorporation of the business sector in VET, to establish a demand-oriented company organized (dual) VET.
- Establishment of a national training funding system for VET.
- Establishment of VET teacher training and upgrading system as well as for trainers in companies.
- Further development of the Vocational Education Development Center.

(1) Policies and measures in the provision of TVE

Even though Laos consists of 18 provinces and 142 districts only 7 provinces has either vocational or technical institutions. The major institutions are located in the Capital City, Vientiane, including that of private TVE institutions. This means that students who live in the remote areas will have very little chances to enjoy vocational training.

---

[8] Source: Vientiane Time, 22 and 23 June 2004.

[9] Country Strategy Paper Laos, Vientiane, June 2002, p. 20

Therefore, to improve the equitable access the Higher, Technical and Vocational Education Department (HTVED) has set the strategic goals as follows:

- Rehabilitation and renovation of existing schools/TVE colleges for a better response to the demand of the market economy
- Establish 5 integrated vocational training schools for the regions (North, Northeast, Northwest, Central and Southern) and establish two regional colleges (for southern and northern regions) by the year 2005.
- Promote the provinces to establishing vocational training schools by providing technical assistance, curriculum, textbooks and teaching personnel aimed to reach the goal that every province shall have at least one vocational school by the year 2020.
- Promote the private agencies to establish vocational schools,
- Expand and promote the participation of enterprises and private sectors in technical and vocational training
- Set up specific programs that target improved access by disadvantages groups,
- Develop approaches to flexible deliveries by improving the information and recourses centres and networking
- Develop a national framework on vocational guidance and counseling
- Conducting feasibility study for open learning,
- Conducting feasibility study on learning two/three shifts per a day

In response to the policy and goal mentioned above, there are five grant aid projects with the support from the government of Luxembourg, Germany, Republic of Korea and SR Vietnam being implemented. In addition, other two novel grant aids supported by Germany and the Kingdom of Belgium is under the project formulation.

4. Curriculum and Instruction

All public and private TVE institutions deploy curriculum-based approach to teaching and learning. Curricula may be developed in the TVE institutions but they have to get approval from the ministry of education. Curricula used in the TVE institutions, which are directly under the supervision of the department, are centrally developed at the Vocational Education Development Centre and approved by the ministry of education. Learning mainly takes place off-the-job also known as classroom-based environment. In the final year of the course, students have to spend about 3 months in the workplace called practicum.

However, in order to meet the relevance and local/regional market needs/standards new approach to vocational training is striving to take place. In previous year, a new cooperation between government sector and industry has been started.

5. Tracer Study

According to the National Baseline Tracer Study that conducted on August, 2006. The study covering 9 provinces, 965 TVET graduates were interviewed and questionnaires filled. The details of information gathering as follows:

5.1 Enrolment

5.1.1 Equity of access to vocational education

Provinces without vocational institutions are at a considerable disadvantage vis a vis those provinces with training facilities. Referring to the actual numbers of enrolment (only 26.4% of the student population came from provinces without training institutions) as well as to the type of enrolment , non-quota and paying student from these provinces are significantly below the average. However, recently additional vocational education facilities have been opened in selected provinces and will contribute to reduce the existing disparity.

5.1.2 Socio-economic background

About 55% of the parents of vocational education students belong to subsistence and faming households or are engaged in small retail business indicating that this sector of society is duly recognized in the provision of vocational education and thus supporting the reduction of poverty.

5.1.3 General education level

Although 30% of TVET training capacity relates to 8+3 vocational training programmes, only 6% of the respondents completed their general education with grade 8 whereas 91% of the enrolled TVET students are grade 11 level graduates. The existing enrolment practice constitute a big disadvantage to grade 8 school leaver since they are grossly under represented in the allocation of training seats. Therefore, access to vocational education training is largely denied for this group of school leavers.

5.2 Employment

5.2.1 Employment ratio

During the time of interview, 79% of the graduates reported to be employed, 17% were unemployed and 4% are engaged in further studies. This constitutes a relatively high ratio of employment of TVET graduates.

5.2.2 Waiting time for employment

67% of the graduates were employed within period of three months after completion of training out of which 32% did find a job within first month.

5.2.3 Level of employment

Although respondents graduated during the period of 2001-2005, 91% of the TVET graduates are still working as junior employees (63%) or as beginners (28%). Only 7% states to be a position as foreman or at a more senior position. The research result indicates both: a slow professional promotion process and the reluctance of employers to entrust graduates with more senior or foreman positions or tasks (lack of competencies). Especially, a higher share of middle management positions envisioned for graduates of 11+3 study programmes are not traceable.

5.2.4 Employment by size of business establishment

There is a clear tendency that graduates find employment in established companies and the formal labour market. 50% of the respondent are working as paid employees in

large firms with more than 50 employees. 21% are working in medium sized companies (< 30 employees) and 15% stated to work in small firms (< 10 employees). The percentage of persons working in the family businesses and self-employment sector is surprisingly low, only 9% are working as unpaid family employees and 2% as paid family workers. Not more than 3% are stating to be self-employed.

6. Usefulness of training

6.1 Employment corresponding to trained occupation

84% of the graduates and 76% of the employers state that work duties correspond to the trained occupation. This provides evidence that employers are looking for qualified persons to engage in professional work and that the majority of TVET graduates seek and find employment according to their training and qualification.

6.2 Theoretical and practical instruction

72% of the graduates consider the theoretical instruction received during the training as "extremely useful" and "very useful". However, 94% rate the practical training as "extremely useful" and "very useful" indicating that mastering trade-oriented practical tasks is important and relevant competencies are required.

6.3 Ability to apply training contents

Only 2% of the employers rated the overall ability of graduates to transfer and apply the training contents at the workplace as "very well" and 41.9% rated the ability to transfer knowledge and skill as "well". However, the categories "somewhat", "not well", and "not at all" measure 32.4% and indicate that about one third of the employers are unsatisfied with the competencies acquired during training. Taking into account about 76-84% of the TVET graduates are employed in jobs they were trained for, this percentage is definitely too high and the category "very well" is much too low.

6.4 Value of certificate and diploma

Graduates and employers alike place high esteem on certificates and diplomas attesting completed raining programmes. 72% of the graduates consider it "extremely useful" and 24% as "very useful" holding vocational education credentials. Also employers rate completed training programmes and vocational certificates/diplomas very high. 73% of the interviewees regard the possession of certificates/diplomas as "extremely useful" (10%), "very useful" (30%) and "useful" (33%).

7. Conclusion

Lao P.D.R is referred to one of the least developed countries in the world. The country is still heavily dependent on external assistance. Therefore, the government of Lao P.D.R has devoted a lot effort to uplift the country from the current status to an industrialized state by the year 2020 and to halve the poverty rate by 2005, with 38% of the population living under the poverty line at present.

Technical and Vocational Education and Training (TVET) sector is facing several problems such as, an unsatisfactory quality of graduates, inappropriate and insufficient

training facilities and very limited funds for maintaining and expanding training institutions. Therefore, that national Ministry of Education has put great effort into improving the educational sector, including TVET. The future objectives of TVET in Lao P.D.R are not only learners' needs oriented but also focusing on current and future labour market demands. TVET qualification, curriculum, articulation/recognition and certification frameworks were recently endorsed by the Education Minister. Following these, teaching and learning will use a cumulative credit system and learning should be in modular form. It is expected that all TVET programmes including those offered by line ministries and private VET institutions will have to follow the newly endorsed ministerial decrees.

Malaysia

Education System in Malaysia – A Brief Overview

Education, a responsibility of the Federal Government, encompasses a beginning from pre-school to university. From pre-school to secondary education (i.e. from the age of 6 to 17), the responsibility is with the Ministry of Education (MOE) while tertiary education comes under the jurisdiction of The Ministry of Higher Education (MOHE).

Pre-school starts at the age of six, followed by six years of primary education. Secondary education consists of 3 years of Lower-Secondary and 2 years of Upper Secondary.

Technical and Vocational Education and Training in Malaysia – A Brief Introduction

At school level, MOE introduces vocational skill for students who opted for the facilities that can give them an edge upon leaving school and in search for work or work-related training. To provide and encourage students towards technical and vocational education, MOE had established 90 technical and vocational schools providing technical and vocational education and training at upper-secondary level.

Technical and vocational training at post secondary level are provided by MOHE through 20 polytechnics and 28 community colleges. Other government agencies under their own ministries also provide post secondary technical and vocational education and training but usually more tailored or specified to their respective needs.

Global Trends and the Implication on Skill Requirements for Employment

1. The first notable impact of global trends is in the need to compete beyond ones borders and thus have to be competitive in various aspect of their skills and knowledge. Communication skills be it in English, the international language, or any language that is relevant to a particular situation or venture has to be effective and strengthened with all the necessary 'soft skills' required.

   In the Malaysian perspective, this is particularly critical, English being the working language for most companies and organizations and more so for international or multi-national companies or organizations. Young 'school leavers' lacking in communication skills will find it very hard to make the transition from school to work. Social-economic background, urban and rural communities and even race are mostly the determining factors affecting school to work transitions.

2. The advent of information technology have affected and determine how things are done and achieved, from the most basic and routine needs of an individual to the

more complex and extensive in nature found in high-tech industries and large organisations and corporations. And most significant for young people entering the working world, sufficient knowledge and skill in IT is almost and so often a per-requisite.

Efforts to provide the young sufficient knowledge and skill in IT had been carried out extensively over the years and in many levels of education and training though the expected outcome still to be fully achieved. Procurement of hardware may not be the issue and perhaps more effort could be channeled to the development of more highly qualified trainers and system software that befits the national, regional and global requirements.

3. The fast pace in technological advancements have consistently affected young people in their transition to work. The young could be equipped with all the necessary technical skills and knowledge only to discover at their working place the use and application of a newer technology, hardware and software and thus making their knowledge and skill irrelevant and need for retraining or in a worst-case scenario, obsolete.

   Local high-tech industries responsible for the development of technology, both hardware and software is one of the key factors to be addressed even though in Malaysia, great strides have been made in high and advanced technology through co operations with private industries and corporations and with other countries, both developed and developing nations.

Features of Successful Transitions in Malaysia

Most successful secondary school leavers (if they are not bound to universities or post secondary education) will continue their education and training at institutions provided and run by the Ministry Of Higher Education (i.e. polytechnics and community colleges) and by various agencies under different ministries like Ministry Of Entrepreneurship Development (e.g. German-Malaysian Institute, British Malaysian Institute and Malaysia France Institute) and Ministry Of Human Resources (e.g. Japan-Malaysia Technical Institute and Advance Technology Centers). There are also training centers provided by big corporations to cater the specific needs of their industries like banking (All the major banking institutions have their own training centers), petroleum industry (PETRONAS and SHELL), power industry (Tenaga Nasional Berhad – Malaysia's only power provider) to name a few.

1. The above mentioned institutions and training centers provide school leavers with skill upgrading not just in their respective disciplines but in other skills like communication and teamwork and other 'soft skills'. These institutions provided youth with skill upgrading and direct exposure to the actual working environment through their partners in industry or parent companies.

2. Training institutions like polytechnics and community colleges have strong liaisons with industries and thus can prepare students as best they can with the actual working environment through industrial training sandwiched between their final two semesters. The only point in question is the effectiveness of the industrial training taking into account the unproportionate number of trainees and places for training.

3. The Human Resources Development Fund, established in 1993 and administered by the Human Resources Development Council, facilitates training of young employees or retraining for 'mature' employees due to changes in technology. The Fund is used to accommodate 100 percent of the costs of training if carried out within the country and 50 percent if carried out overseas. Manufacturing companies, as members, contribute 1 percent of employee's monthly wages to the Fund.

Lessons from National and Regional Experiences

1. Successful transitions can be made easier by matching technical and vocational training skills to those required by the industries. Curriculum and training content can be developed with strong involvement by the various industries. Training and curriculum content can be made more appealing and effective by making it dynamic with regular and periodical reviews to suit the need of the industries and changes in the global arena.

2. Youth need to be guided at the earliest possible stage of their learning years on how to determine the right work for the right person. Career advice have to be complimented with industrial visits to as many relevant industries as possible. Career choice, if made correctly, can accommodate very well the youth in his transition to his new surroundings.

3. Youth need to be exposed to as many as possible working environments and types of industries so that he can make the right choice to suit his interests, personality and capabilities. At the same time, basic understanding of the various working cultures, demands on commitment and discipline and career advancements can also be observed.

4. The asia-pacific region, particularly Malaysia can no longer compete in labour-intensive industries and thus the need for manpower with knowledge and skill that can spur the growth of advanced and high-tech industries (be it in manufacturing, agriculture or services) to make Malaysia a competetive player in the global arena.

Conclusion

Malaysia and her neighbours in the Asia-Pacific region can certainly work together for a better future and ensuring our youth can participate effectively and extensively by establishing all the necessary requirements for a better transition from school to work. In the Malaysian context, extensive effort have been made and yet a lot has to be done to approach an ideal situation whereby there is a strong and sustainable correlation between school and work.

Mongolia

Country profile

Mongolia is located in Central Asia and has borders with China in the South and Russia in the North. The total area is almost 1.6 million square kilometers with a population of 2 562400 (2005). Population density is extremely low, approximately 1, 7 persons per square kilometer. The terrain is semi desert and desert plains with mountains in the west and southwest. The Gobi desert dominates the southern third of the country. Central and northern Mongolia is in the Siberian steppe, a semi-arid grassland whish supports an estimated 30 million horses, cattle, sheep, goats, and camels. The area also has significant mineral deposits. The few forests (less than 10% of Mongolia‘s land area) are in the north. Mongolia’s high altitude (with an average elevation of 1580 meters), continental position, and proximity to the Arctic create a harsh climate with a mean temperature (over the whole year) below 0 degrees Celsius. The climate is very dry and severe.

The Mongolian population consists of two nations: Mongol and Kazakh. The majority (90%) of the population is Mongol, which consists of 20 different Mongol ethnic groups. The official language is Mongolian. The most common religion is Buddhism (90%). Kazakhs living in western Mongolia are members of the Sunni Muslim faith. Unity of language, religion, and culture is one of the advantages of Mongolian education system, which give positive environmental condition for a high literacy rate.

The capital city is Ulaanbaatar. There are 928.5thousend [1] inhabitants.
By structure, Mongolia is unitary state and its territory is administratively divided into a capital city and 21 aimags (provinces). Aimag populations range from 43500 to 106000 and are dividing into Aimag centers and 12 to16 sums (administrative unit). Sums are comprised of sum centers and bags (brigades). The latter are the lowest rural administrative unit and consist of three to four bags (rural settlements) each of them covering some 50-350 families. There are a total of 324 sums and 1590 bags in the country.

The country has a multi-party system and parliamentary power. The highest state and legislative power is represented and exercised by, and vested in the State Great Khural, the parliament, elected by the people. The Mongolian Great Khural has 76 members elected every 4 years.

Demography

Since Mongolia is a country with relatively small population, it attaches great importance to the growth of its population and to the creation of favorable social, environmental, and psychological conditions to ensure a better life for its people. The positive changes in the social and economic development of Mongolia resulted in rapid population growth, in the early 1950’s. With the increase in birth rate and the decrease of infant mortality over 20 years (1952-1972) the population increased by 1.6 times. In 1973,

[1] Mongolian Statistical Yearbook 2004

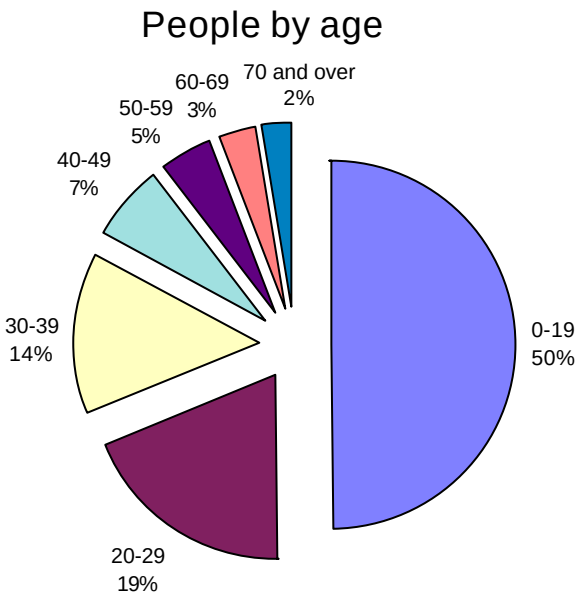
the population growth rate reached its peak, constituting an average annual growth rate of 2.9 %.

Mongolian population is very young. Children under the age of 19 are total 50 percent of total population, which is shown in the figure 2. Over the past 70 years, since gaining its independence, Mongolia's population has tripled.

Given that 68, 5 percent of population is under the age 29, shows that Mongolia must pay special attention for developing education for children and young people.

Almost 57.4 % of the population is living in urban areas and the trend of migration from the countryside to the cities is increasing due to better employment, learning opportunities, and better living conditions. As a result, of course, the urban population is growing. Since 1989, it is estimated that 30% of all those that migrated, relocated from rural areas and small urban areas to Ulaanbaatar city, Darkhan-uul and Orkhon aimags[2]. These cities cannot cope with such high migration rates. According to the ADB[3] source in 1998 a higher proportion of the poor live in urban areas (57%). In the urban areas 52% of the poor are unemployed, compared to 20% of those in rural areas. Following the closure of major industries in the years before 1990, urban unemployment increased greatly. The development of the economy in rural areas is an important challenge for the future.

Population by age group



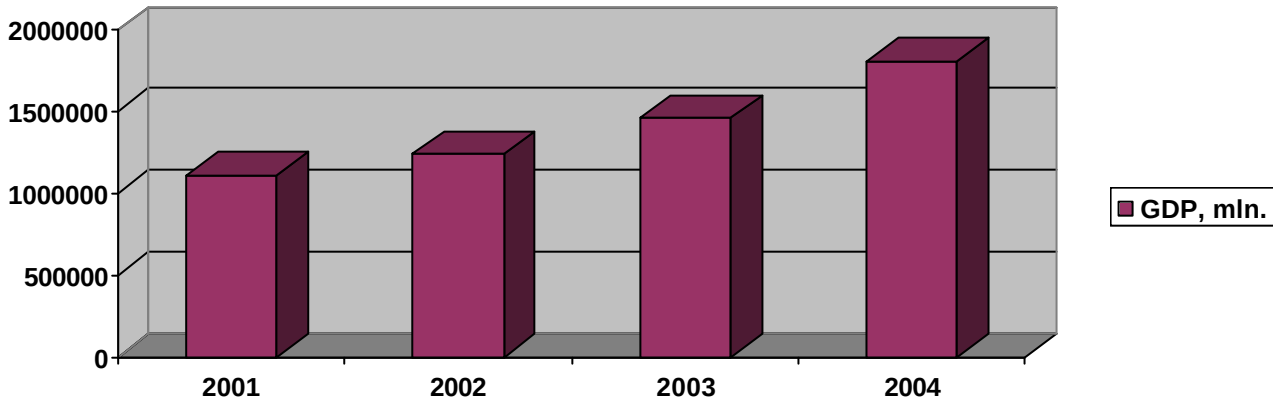
Economy

We can observed a notable economic growth in the economy of Mongolia since 1994, however, the social development, namely the living standards of the Population has not

[2] Reproductive Health Survey 1998, Ministry of Health, State Statistical Office
[3] ADB "Country Assistance Plan 2001-2003"

succeeded adequately. The Government has set itself the goal of reducing poverty through higher economic growth, whish will be based on active private sector participation and an export oriented trade policy. Regional and sustainable development concepts will be incorporated in the general economic growth strategy. The Government of Mongolia have goal to renovate techniques and technology, upgrade the processing of raw materials, rehabilitate the industrial processing sector, ensure sustainable development conditions, increase investment in education and health sectors and establish favorable conditions for investment.

By the end of the 1990s the initial economic reform was over, and the institutions of market economy including a labor market have started to stabilize. Private sector share was only 3.3 % in GDP IN 1989 but in 2005 it was reached to 77.4% accordingly.[4] Annual changes of GDP are 6.2%. Sectors responsible for growth were financial intermediation -16.7%, construction-11.9% and mining-11.3%[5]. The Mongolian economy has experienced considerable industrialization in recent decades



Privatization has always been a priority area for the policy on structural adjustment and stabilization of the economy. During the transition period, the 100 % of livestock transferred to private owners. The task of transferring livestock to private ownership has realized completely.

Since 1990's Mongolian economy has become more open, all citizens of Mongolia have the right and opportunity to set their goals for their lives, and a free and competitive environment for any private initiative has created

The rapid grow of an informal sector from a relatively low level has been notable features of Mongolian transition economy. And now the private sector is being promoted and it is now already in a position to produce 85% of Gross Domestic Product.

[4] Mongolian Statistical yearbook, 2005, p 40

[5] Mongolian Statistical yearbook, 2005, p 115

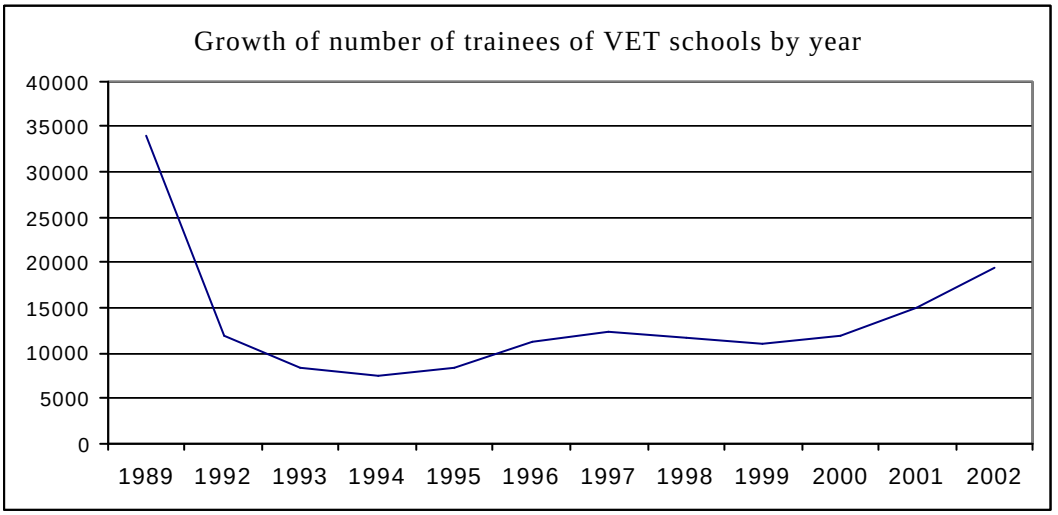
Development of infrastructure is one of the priority areas of government policy on development of the economy. Lastly, there has been increased investment in roads.
Next priority is mining sector. The Government stimulates activities aimed to explore and process natural resources. Special programs for stimulating a mining sector have been approved. In the 1996, Mongolia has started to explore underground oil.

An overall macroeconomic policy of the Government is aimed at maintaining sustainable economic growth, accelerating a private sector development process, securing the social safety of population, and improving living standards of population. Because the privatization of the state enterprises and collapse of many industrial entities. Therefore, a lot of people, specially, specialized labour force has had to change their work and have had no opportunity to work in the fields of their qualification. With the changes where officials of self-managing governmental organization have to be elected, the sex ratio of specialized labour force having specific work and positions have changed as well.

The privatization process was not so actively supported by people because of lack of adequate knowledge of nature of privatization process, new owners suffered from lack of management skills and insufficient knowledge of market environment. In addition, the weak financial system could not provide adequate support to new entrepreneurs, especially for upgrading of equipment. There are some interruption in the supply of some raw materials and technology. As result of this policy the unemployment, poverty and crime increased.

Vocational Education in Mongolia

In 2005 the Ministry of Education reported there were 138800 students enrolled in

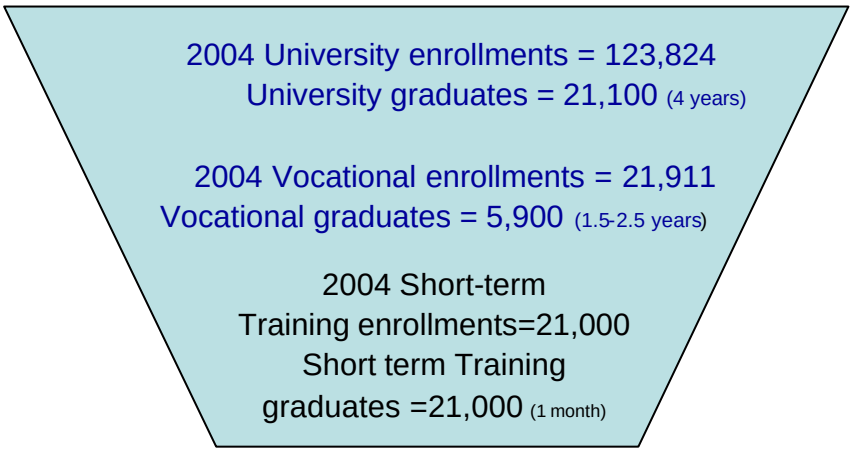


171 higher educational institutions and 22,4 thousand graduates; 23.2 thousand students were enrolled in 35 vocational schools, and there were 8.2 thousand graduates. There were also 21,000 short-term training graduates (labor-related training for unemployed people).

Thus, there are more than five times more university students than vocational students and three to four times more graduates, which is the reverse of the education

pyramid. In 2005 the number of unemployed people with higher education increased by 36.5% to 2002[6]. For every basic vocational graduate employed in construction, there are 3.8 job vacancies; but there is only 1 vacancy for every 49 university graduates employed in construction[7]. This paradox of high levels of education coexisting with skill shortages in Mongolia is an indicator of a mismatch between supply and demand of the labor market.

ratio of university to vocational graduates is dysfunctional for economic development



From 2000-2004 university enrollments increased 37%, while vocational enrollments increased 46%.

Young people lack the opportunity to choose their future professions. Due to non-availability of financial, teaching and facility resources and the former strict specialization of schools, the number of professions offered by VET schools is limited. Those on offer are those which tend to be less expensive to teach such as traditional trades like shoe and dress making, sewing, hand carpet making, carpentry, catering, construction and fine arts. In addition, the system for identifying new occupations and developing relevant standards and curricula are on the development process. There is no career counseling, unless you count some primitive activities at employment services, which are actually leading to over-preparation of skilled workers in certain fields

Reform of the vocational education system was not adequate to meet the requirements of market economy. Therefore the graduates' knowledge and skills fail to comply with the needs of employers. Employers confirm that graduates haven't creativity, and technical skills, and professionalism. They also say that graduates lack professionalism and interest in vocations they have chosen[8]. These deficits of skilled

[6] National Statistical yearbook 2005
[7] Result of Labor market survey, NMC, 2004
[8] LMA pilot survey reports organized during TACIS project in 2001-2002 in light industries of Ulaanbaatar.

workers are particularly severe in the road construction, building construction and mining industries[9].

At the end of 2005, there were 35,000 job vacancies in construction, wholesale, and retail trades, agriculture, processing industry, mining[10], and hotels and restaurants, but due to shortage of skilled workers who could meet employers' work requirements and more then 12 thousand foreign workers filled these vacancies in summer time and 5 thousand in cold season.[11] Mongolian labour market is very specific. There are many seasonal works as road and building construction, tourism, and mining because of the cold weather condition.

According to the Labor Market Assessment conducted by Labor Office most companies did not perceive major problems in recruitment, but more than 65 % of the companies stated that applicants were not properly trained at the time of recruitment. Seventy percent see this as an obstacle for production increase. In fact, the major obstacle to increasing production is the general lack of skill and work experience among employees.

The Labor market Survey[12] also confirmed employer demand for more than 30,000 skilled workers in the following growth industries over the next 2-3 years: Mining/Machine Trades, Construction, Agriculture/Food industry, Light industry, ICT and health. ***The current VET system does not provide a sufficient supply of necessary qualifications to the labour market.*** The Mongolian labour market lacks a sufficient number of well trained skilled workers with employment attitude.

As the market economy requires rapid change in technology and production processes, the demand for highly skilled workers with technical skills increases as well. Therefore, demand driven vocational education must be established. In addition to increasing the number of workers with technical skills, workers must improve their communication skills and attitude to compete successfully both in Mongolia and the global labor market. Therefore, Mongolia seeks to renew and improve its VTE system not only to respond educational demand of individuals and employers, but also to form healthier relationships between social groups.

As noted, due to limited financial resources, poor management and undeveloped private-public partnership, current VET schools and colleges have outdated training equipment, facilities, laboratories, and workshops including simulated work places. On average, equipment in support of VET is 30-40 years old and therefore no longer meets industry standards and requirements. There is chronic lack of modern, up-to-date and technologically relevant training materials, handbooks, and manuals in the national language. Normally, vocational school libraries have Russian textbooks for the key occupations and trades from the Soviet period. These materials and texts have not been updated or customized to modern situations.

Throughout the national education system, traditional vocational schools provide instructional programs according to school subjects that are no longer relevant to modern

[9] LMA surveys in 2003-2004 organized by employment offices under the SSSDP project

[10] See Annex 1, ranking of occupational training fields by preority

[11] LMA survey reports 2004, labour barometer 2006

[12] Labor Office Quantitative survey, 2004

life in Mongolia. The subject content of current textbooks, manuals and student workbooks remain with a heavy academic focus. There are few opportunities to relate the material and subject matter to the work place and the focus on theory further removes students from the reality of working within the conditions of the manufacturing, mining and construction sectors. Some colleges with healthy industry partnerships, hospitality and tourism for instance, provides some opportunities for work place training in the context of modern conditions, but such partnerships are not widespread.

As the market economy forces rapid changes in technology and production processes, the demand for high-skilled workers with technical and problem-solving skills increases dramatically. This emphasizes the need to improve the quality of vocational education and training to underpin the Government's efforts at economic development, provide opportunities to reduce poverty and promote small and middle sized business enterprises. This has become all the more apparent in 2006, when the labor market landscape started to change by requiring internationally recognized skill-levels and qualifications. This is consistent with regional developments where employers now require qualifications that meet international recognition standards. This entails upgrading courses (curriculum, learning materials, facilities, textbooks and manuals) to international standards where qualifications can be accepted in a number of countries and industries. This situation is apparent when it is recognized that there are:

- 3,042 foreign investment companies from 73 countries operating in Mongolia[13];
- 235 companies from 31 countries in geological prospecting, mining and oil exploration accounting for 46% of total FDI; and
- 4,343 (50%) of 8,743 foreign skilled workers in Mongolia are technical professional workers carrying internationally recognized qualifications and credentials.

Responsible bodies

Beginning from 1990's with the transition into market economy, the labour market and social security mechanism have been significantly changed and there emerged new types of employment offices, The Chamber of Industry and Commerce, and vocational associations, employers federations, trade unions and other state and non-government organizations. Such changes enforced the establishment of legal framework for carry out initial and secondary vocational education and training responsibilities.

The new Law on Vocational Education and Training is one main document that enables to have independent VET structure and strengthening the role of VET in current labour demands. As stated in the article of the new Law "On Vocational Education and Training", "the government body dealing with education and training is responsible for implementing vocational education and training policies and is charged with:

- designing the general structure of the information support for the vocational education and training system;

[13] World Bank, Mongolian mining sector, Managing Future, 2003

- Analysing information and statistical data related to vocational education and training system and labour market demand and supply.

The government body overseeing the labour and employment sector in the country is responsible for the following issues related to vocational education and training:

- performing analysis of labour market demand and supply, disseminating information to the population;
- designing a database for vocational education and training, analysing the available information;
- identifying requirements for training provision in state-owned and private educational institutions;
- Monitoring delivery of short-term courses and exercising control over the quality of training, coordinating and disseminating information to the population.

Policy Changes

The Law "On elementary and Secondary Education", the Law "On Vocational Education and Training" and the Law "On Higher Education", was adopted on 3 May 2002. VTE Law set a legislative framework for vocational education and training in Mongolia. According to the new Law the Ministry of Education, Culture and Science (MECS) is responsible for Vocational Education and the Ministry of Social Welfare and Labor (MSWL) is responsible for vocational training. For the first time VTE Law includes the following aspects:

- Cooperation among employers, employees, trade unions, professional federations, economic entities and organizations to promote social partnership.
- National Council of Vocational Education And Training, which is responsible for coordinating actions of government and non-government organizations

In 2005 MECS approved Master Plan on Education.

In January 2006 Mongolian Parliament approved amendments of Employment Promotion Fund, which included innovations such as organization of Labor Market Assessment and support for the newly created Business Incubators.

The Social Security Sector Development Project (SSSDP) project provided assistance in their establishment, organizational development, capacity building and skills development. The benefits of this policy are:

- The creation of employment related training system,
- The Labor market surveys which can be basis for the demand driven VET system,
- The development of institutional capacities of Ministry of Social Welfare and labour / MSWL / and Social Welfare and Labour Office / SWLO /
- skill needs analysis, using DACUM method
- Vocational Education and Training standards,
- A modular based curricula development process,

- Entrepreneurship and business incubation.

Labour market assessment

Demand and Supply side is not regulated. That's why Government of Mongolia trying to do the TVE reform focusing in idea to create demand driving TVE system The Mongolian labor force is youth and currently increasing at a rate of 3.4-3.6 per annum. Therefore, the number of working population is increased. In addition, the migration of population of rural areas into urban areas is increasing significantly. At the moment, over 65 percent of unemployed population is youth aged 16-35. They are unemployed due to shortage of experience and lack of adequate skills. 60 percent of unemployed people have no skills at all. Currently, demands of labor market and skills requirements of employers have been changed and it is required to provide a periodic assessment of labor market. The National organizations did not have capacity for labor market research, and have had to start the development of such a capacity from the beginning. For a country as Mongolia in transition, the achievement of goals to set up appropriate framework for analysis and assessment of labor market meets a number of constraints. These can be described due to the following reason as:

- ✓ Lack of experience in labor market analysis and this type of analysis is new in Mongolia
- ✓ Loss of cooperation between vocational education institutions and employers and there is need to develop new forms and types of partnership.
- ✓ As in a country in transition, the labor market is not sustainable. Labor market in Mongolia is mainly seasonable and non-formal sector is widely spread. Although the number of unemployed is high in Mongolia, there is import of labor force from other countries as Chine.
- ✓ Lack of financial support from the government and restricted financial possibilities for the providing labor market analysis; employers and other stakeholders also face with financial constraints and unable to assist in such analysis.

European Training Foundation has elaborated a methodology of performance of labor market analysis in series of projects and implemented in many countries. In frame of networking activities of National Observatories a project on labor market analysis has been implemented in Mongolia in 1997-1998 as a pilot project in 19 enterprises of bakery and meat product. In 2001-2002 in frame of National Observatory's network activities of France, Czech, Kyrgyz, and Mongolia within European Training Foundation and TACIS program, National Observatories National Observatories the following results have been achieved in this field:

1. The first step has been made towards training of experts by setting up of Working Group and training specialist of relevant agencies. (Involved specialists of Ministry of Education, Science and Culture and Ministry of Labor and Social Welfare, Central Employment Office, Employment Offices of 6 districts of Ulaanbaatar city, scholars and professors of Labor Institute, students of Mongolian university)

2. Study of labor market analysis has been carried among 50 enterprises and entities of Ulaanbaatar city dealing with wool, cashmere processing, and textile and clothing industries. The report have been published and distributed along with recommendations.
3. Methodology of the labor market analysis for vocational institutions has been developed and published.
4. Ministry of Social Welfare and Labor has been concentrating in this issue and labor market analysis study is continued within ADB project for training personnel of Employment offices and stabilizing the study furthermore.

In 2003, in the frame of Social Security Sector Development program labor market needs analysis has been considered and piloted national survey in construction, mining, and tourism sectors.

According to the survey:

1. There are tendency of growth in investment, production, and service construction, mining and tourism sectors. It is observed that companies that are willing to increase production in large amount are based on capital investment factor, whereas companies that are willing to grow in a minor level based on labor force investment.
2. A number of workers in construction sector are going to grow. However, most of employers (78.9 percent) view that most of people coming to the construction do not have skills needed to labor market and have not been involved in any vocational education. This matter negatively impact in the development and growth of this sector.
3. Accordingly to survey results the following vocational qualifications are demands: carpenters, maunders, weld ers, plumbers and etc.
4. 42 percent of new employees receive assistant and service of employment offices.

Conclusion of the survey: By providing labor market analysis there were defined a number of people to be involved in vocational education and training and types of qualification and skills necessary for the current labor market. Thus labor market analysis is a flexible mechanism that identifies needs of vocational education and training program suited in the labor market. By offering initial vocational education and training not required by current labor market, there is growth of unemployment added by qualified labor force but skills not required at the current labor market. The experience from pilot projects conform clear need to continue to develop the labor market analysis systems at different levels national, regional, local. The local labor markets play a crucial role for the social and economic development of the countries. The vocational institutions see most of their graduates enter into the local market. Employers involved in survey say that new recruited workers haven't sufficient professional skills and experience. And 70% of employers confirm that this fact take big obstacles for industrial development. LMA [14] survey result confirm that workers skills not satisfying employers need and requirements (68 % of employers included in LMA survey have such kind of opinion).

[14] Labour barometer 2004-2005, published by the Labour and Social Welfare Agency in 2006

Specialist concludes: lack of policy in vocational training, insufficient skilled workers oblige employers to use foreign workers, because they are more skilled in some occupations.

Project development

Taking into account the underdevelopment of the current vocational training system in Mongolia, the general lack of professional skills and capacity of workers, and the rapid increase of unemployed with higher education, the National Council propose a program of vocational education reform to prepare and to train specialized workers in the country. The project objective is to develop a new workforce training system providing core technical and interdisciplinary skills which will allow workers to compete successfully in the labor market, promote the country's economic growth and broaden the economic opportunities for its citizens, thereby reducing poverty in Mongolia.

To achieve this objective, the following activities are required to better match the skills and competence of the work force to the needs of the economy:

1. Develop the enabling environment needed to sustain a demand-driven vocational education system
2. Establish an industry-led Skills Standards and Curriculum Development System
3. Establish Regional Workforce Development Centers
4. Develop a Career Guidance and Information System

GoM is developing and improve the legislative environment and framework for the better installation of a new Workforce Development System in Mongolia. This will entail revising and strengthening key laws including amendments to the Education Law, the Law on Vocational Education and Training, the Law on Employment Promotion and other relevant support legislation.

The GoM will establish a new Industry-led Skills Standards System including modernizing and contextualizing VET curricula. The MECS has recognized the need to revise and reform VET education and technical standards to bridge the ever widening gap between current provisions for VET and the demand for new skills and competency sets as a result of the emergence of new industries, trades, and occupations. The Government recognizes that the private sector needs to be more effectively engaged in VET planning and the delivery of instructional programs.

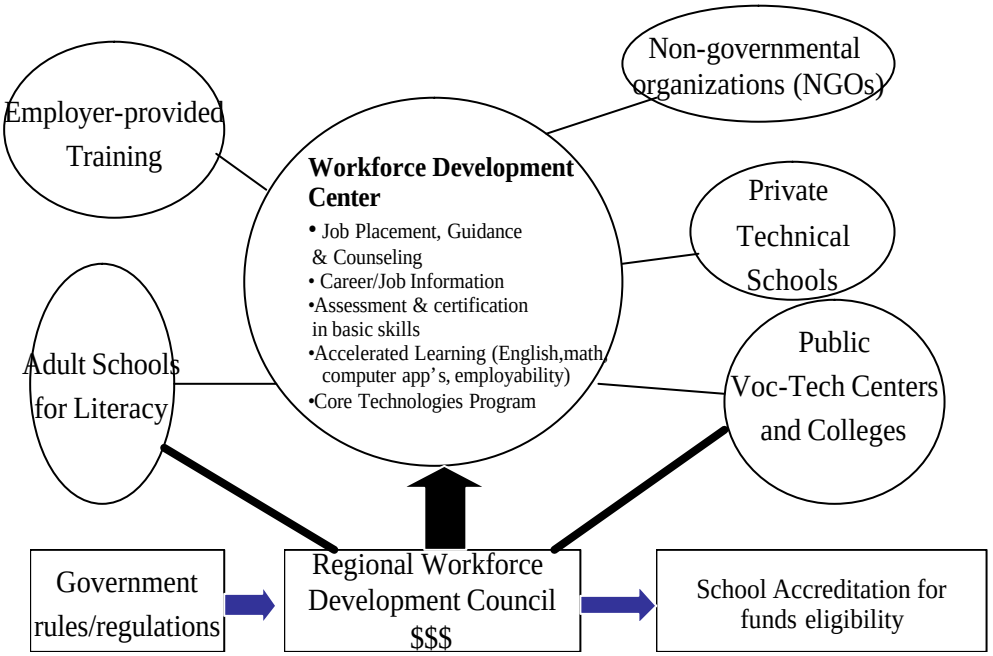
Improved levels of private sector participation with Government planning will to ensure that the standards of education and training are relevant and appropriate to industry needs and expectations. Accordingly, the VET program will establish a system of industry skill standards agreed to and enforced by the National Council for Vocational Education and Training (NCVET). The relevant industry advisory groups will feed information to the Council to ensure that its members are well-acquainted with VET developments throughout industry.

Regional Workforce Development Centers will have several functions, both on the demand side and the supply side. On the demand side, they serve as a "one-stop shop" where people will go for skills assessment, career guidance, job placement assistance, access to career (occupational and educational) information, and courses to improve employability skills (e.g. writing job applications and resumes and practicing interviewing skills for jobs). On the supply side, the WDCs would provide three educational programs to help prospective vocational students get ready for higher level technical training in specific occupational fields. The first is a 6-10 week intensive, computer-assisted Career Readiness Program in math, computer, and employability skills. The second is a 6-month core technologies program in mechanics, electronics, hydraulics-pneumatics, electricity, and computers. The third program will comprise occupation specific courses in Heavy Equipment Operating, Heavy Equipment Technician, Mill Operator, Industrial Mechanic, Industrial Electrician, Welder/metal Fabricator and Metallurgical Technician.

In order to create a better training environment, the Project will develop Workforce Development Centers (WDCs) with advanced equipment, opportunities for virtual training with simulators, handbooks, modern curricula, tools, training materials, library and laboratories with measurement, technical equipment and other appropriate facilities.

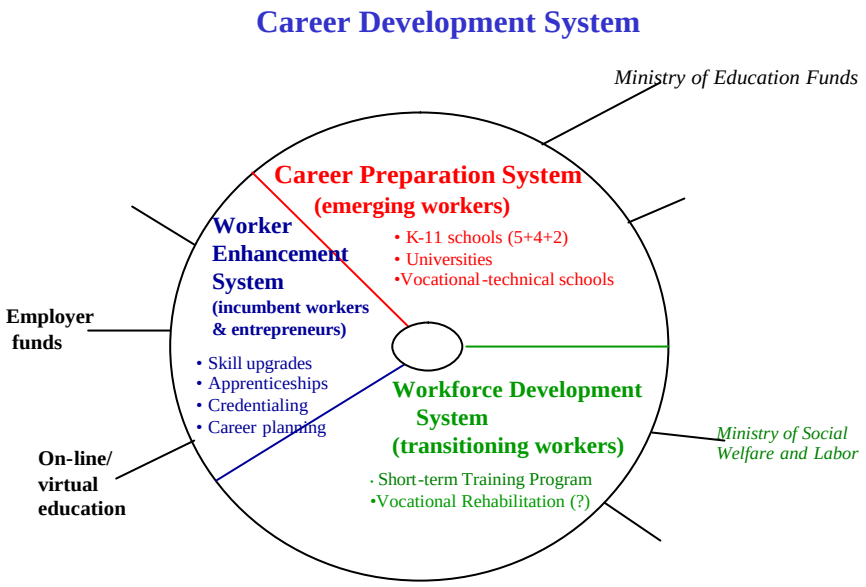
Workforce Development system: Local and Regional Levels

Exhibit 1. Workforce Development System: Local and Regional Levels



The VET Project is to establish the Mongolian Career Information System (CIS), a web based tool that would help young people choose and unemployed adults their careers, acquire new competencies and related educational experiences. Clients would be able to access CIS from any computer with an Internet connection. Self-service computer workstations located in the WDCs will have in addition one on one personal counseling available to clients. WDC personnel would be available to help users learn how to use CIS, once it is developed.

Diagram 4. Career Development System



Career Information Service

The Career Information system would help students obtain information to select career. The job labor exchange system would help job seekers identify and successfully apply for job vacancies. Career information system in Mongolia can be web-based and will deliver career guidance and labor exchange, through the following activities:

- Schools preparation for the career choice process to learn to work with information and use it to make responsible decisions, to have a basic knowledge about the world of labor and education, to draw a basic picture about relevant professional and educational opportunities, to know possible obstacles in the labor market, and to gradually recognize one's own interests and abilities.

- Career Guidance services offered by Labor Offices include printed job descriptions, video clips about occupations, computer program "Guide to the World Of Occupations", computer programs for choice of school education, information handbooks and other printed materials about education, or offer, Psycho diagnostic tests, list of occupations

- The World of Work - provide basic information for getting one's bearing in the world of work

- Career Guidance services will include also psycho diagnostic tests to detect the interests and aptitudes of client's so-called Shufried test.

- Create soft way ICT network between 8 WDCs and essential partners as MECS, MSWL, SWLO, National Statistical office.

Accordingly, the VET project proposal to the MCC is expected to raise incomes, especially of families in rural and remote isolated island populations, by improving the access of Mongolian nationals to enter new and improved streams of further education leading to employment.
Improved access to better training will increase the participation of school graduates in the formal labor market. By targeting students from rural areas, gains will also flow into local economies. The activity will not entail land acquisition or the resettlement of families.

The VET project can also be classified as a poverty intervention. The activity will impact on poverty at 2-levels: (i) improved skill and qualification levels of trainees and graduates entering the labor market; and (ii) improved provisions for the preparation of VET graduates to enter new industries, trades and occupations. As a key function of the VET project is to prepare work ready graduates for an evolving Mongolian labor market, the ready absorption of trainees and graduates into the range of new and/or growing industries and occupations will provide a boost to the economy with an eventual impact upon GDP per capita PPP. Moreover, various studies conclude that increasing educational attainment contributes to an increase in wage levels. The benefits of the VET project will therefore accrue over time as more graduates enter the labor market either domestically or overseas (where remittances will contribute to annual GDP).

Social impacts of project:

- Real possibilities for young unemployed people to be trained in high demand occupational fields
- Workers with flexible skills in core technologies which can help them work in different industrial areas
- Employability skills that will help workers find and keep well-paying jobs
- Opportunities for the current workforce to upgrade their skills
- Regional economic development fueled by a greater supply of workers with required skills and work habits
- More workers with advanced technical training will have more chance to increase family income and their living conditions and social status

References

(1) Vocational Education Law , 2003
(2) "Mongolian Statistical Yearbook", Mongolian National Statistical Office, 2004, 2005
(3) "Labor market analysis", Background paper, National Observatory, 2003
(4) Final Report, "Social Security Sector Development Project" subcomponent "Skills training and entrepreneurship development, 2006
(5) "Labour market report, 2005", Labour and Social Welfare Agency
(6) "Labour barometer" Labour and Social Welfare Agency

Nepal

Introduction

A landlocked Himalayan country, Nepal is one of the least developed countries of the world. Nepal is enormously multi diverse country in respect of ecological, cultural and ethnicity. It is situated between world's largest countries in terms of population China in north, and India has covered east, south and west boarder of Nepal. Nepal is said to be rich on panorama with biodiversity and possessing around 85,000 MW potential of Hydropower.
The population of Nepal as per 2001 census is twenty three million with growth rate 2.25 percent. The population of Nepal is quite young 25 % below 10 years of age and 32 percent between 10 to 25 years of age. The youth of the population allied with the rate of population growth is of serious concern as over 80 percent of populations are dependent on agriculture and there is very little potential to expand the amount of cultivatable land without sever environmental degradation.

The literacy rate is 55 percent and per capita income is US $ 270 and HRD index of UN puts Nepal on 137th position. The World Bank report (2006) has indicated that Nepal's economic growth rate remained 1.9 percent during the year 2006, lowest among SAARC countries.

The Nepal Labour Force Survey (NLFS, 98/99) determines that 9.6 million people above 15 years of age are economically active. A person was defined economically active if he or she had worked for any period of time within the previous twelve months. It was found in the recent survey that male participation rate is about the same as those for females and in total 4.8 million males was recorded as economically active whereas economically inactive population of female is slightly higher than that of male population (NLFS 98/99).

Context

The economic growth of a country solely depends upon the capability of its people who can transform energy, material and information as needed. Technology and resources by themselves are of little value if there are no competent people to change the status quo in desired way. People are necessary to transform energy, information, and materials for the benefit of an economy.

After the recovery of democracy in 2046 BS and current political changes of 2063 BS, all the leaders of the government and non government have realized that if the nation were to survive as a democracy, it would need general education which would allow citizen to govern themselves and also the importance of technological education and training, which would train citizen in the skills necessary to aid in the development of a stable growing economy, was also seen as vital.

About three hundred and twenty five thousands pupil all over the country appear in School Leaving Certificate (SLC) given by the ministry of education in current years. Among these S.L.C. Examination takers only fifty percent pass the test. These are the youths who will be shaping country's economy just after few years. The amount of skills on energy, materials and information they can transfer for the benefit of the economy, will indicate what the shape of economy will be by 2015 AD. The skills

and knowledge, they have acquired so far are only a preparation for further education which can only be hoped to have a tangible effect. It is obvious that Nepal's economic future would not be encouraging especially when there is only 50 percent of the examination takers (youth) pass the norm standard test. Optimists may assume that those who pass may find places for higher education, but what about failures.

The questions that must be asked now is, what is at our disposal make these failures skilled and productive workers for the necessary skills to them for transferring energy, materials and information for economic benefit?

The handful of technological institutions under five Universities and Council for Technical Education Training can cater to only few percent of the SLC takers for technological education which can contribute to the skills required to transfer energy, materials, and people should be supported by this small group who are only contributor to the society with the activities directly related to development of economic status effectively. The rest of the population has to rely on these small groups making a unbalanced distributions of loads as the activities for economic development.

Massive technological Training and Education as required by the modern economy of the global market should be the name of the boat which should be urgently boarded by Nepali youth. The Council for Technical Education and Vocational training (CTEVT) is a vessel which can accommodate the rest of the passenger to economic pilgrimage left by other higher academic institutions like Universities. Meeting the needs of the massive expansion of technology is the focus of the organization like CTEVT.

Before looking deeper into technological education let us take a glance at general education. The series of questions that makes us uncomfortable to ask are why 50 percent of SLC taker failed the test?, What are the deficiencies that contributed to failure?, What about the norms for passing the test? Is their any substantial difference between passer and non passer in terms of skills which contribute to social and economic development? And are we treating to the non passers as untouchables? etc.

If a program can be designed that fits into the secondary education system as transition from school to work, then perhaps most of the questions in the above paragraph can be answered positively. The previous integration of vocational education into general education as implemented by the Ministry of Education had little impact on desired outcomes but it did not tell that the attempt was in wrong time. Perhaps another similar attempt should be made possible which should suit the Nepalese context.

Before going any further, the question of need based education and supply based education should be clarified before any attempt is made to implement a new system. Much talked, Education Management Information System (EMIS), and Labor Market Information System (LMIS) have limitations in the Nepalese Context. The shortage and surpluses do not exist in the way the information provided by EMIS, LMIS system designed by specialists. Suggested Communication ports and channels have been the problem even in industrialized countries, where scientific technology has been a way of life. In this regard it would be appropriate not to wait till the full

scenario comes from EMIS, LMIS result but act on the basis of international trends as soon as possible. The transition from school to world of work is the present need of the country at the moment. The experiences and skills that are needed by the world of work should determine the curriculum of a school at least in the final phase of an education program. This program may vary from awareness to occupation to application skills for occupations.

CTEVT's experiences through its technical school can be shared with general educationist for developing school to work transition program. To improve the quality of life and economy of the people of Nepal CTEVT's classification of training appears to be appropriate. Rural schools as defined by CTEVT, mainly concentrate on services, thus improving quality of life. Technological education on areas like construction, health, agriculture, fruit processing and even tourism, can significantly contribute to improve the quality of life. Urban trades like engineering can promote industrial growth of a country for stable growth of economy.

Technical and Vocational Education and Training

In Nepal , the development of formal Technical and Vocational trainings and education can be traced back to 1930s, when Ayurveda school was initiated in 1930s. The other formal training sector emerged ad engineering school to prepare the workforce required to supervise constructions works of public sector in late forties. The other aspect with government initiatives, began in fifties which was to prepare skilled and employable persons required cottage and small industries.

In education sector, Basic high schools the Gandhi philosophical school as preparing people towards self-help also began in Nepal in fifties. The first education commission report of 1954 recommended for Multipurpose High School with trades like Secretarial science, Home science, Agriculture and Trade and Industries, and were the subjects given to secondary schools youth to prepare them suitable to work developing their skills, knowledge, and attitude towards the occupation they would be engaged in during productive part of life. The numbers of schools were quite few at that time. Only about 20-30 schools were selected and few of them were only running the programs in all four trades. This was the first education that, the SLC level tests were taken on these subjects, and was the first activity to prepare the youth for work. In the mean time three donors specifically introduced three trades training center one in Balaju with Swiss assistance, to prepare skilled workforce on metal related trades, another in Thapathali by Germans also related to metal trade and automobile and another was started in Butwol to prepare workers for United Missions Nepal's development projects. The unique Apprenticeship model was introduced in Butwol and is also running on same modality to present time. But these initiatives were meant for very few people but the training programs were very effective and employment of the graduates were almost 100 percent and also helped significantly to the industrialization of Nepal..

During the sixties efforts were made to attach vocational education to general education from grade six to ten. However, the efforts were mixed and no cohesive government policy was formulated. In 1971, the government initiated a major policy initiative called the National Education System Plan (NESP). This policy recommended vocational education to be provided in every secondary school in the country. Consequently multipurpose schools were converted in vocational schools and

by 1979, more than 120 schools were offering vocational subjects like agriculture, industrial and business.
In 1979 the National Education Committee introduced a Technical School Work Plan. The Technical School scheme emphasized skill training and occupational preparation for school dropouts, school leavers and non-college bound youth including the economically poor population who were unable to pursue higher education. A need to manage these types of school was realized and Technical and Vocational Education Committee (TEVC) was formed followed by a Directorate of Technical and Vocational Training (DTEVT), as a Division of the Ministry of Education and Sports (MOES).

The on going TEVT system was the result of the view that coordination and assistance to the sector was required. This led to the establishment of an autonomous body, the Council of Technical Education and Vocational Training (CTEVT) in 1989 under MOES with the parliamentarian CTEVT Act. Whilst CTEVT had mandate to coordinate and assist the sector, it also managed number of technical schools most of them were developed by donors. A subsequent ADB project in 1994, added five new intuitions. The process of acquiring new institutions has led CTEVT to be the major providers of TEVT training in Nepal.

Major Agencies providing TEVT trainings for all economically active population including school leavers

- CTEVT's own schools provide training and education ranging from short term training of one week to post SLC three years diploma programs. At present there are 17 seventeen training institutes under CTEVT conducting regular programs on TEVT Sector. The programs are on Agriculture, Metal Engineering, Hotel and Tourism, Health and Nursing and Construction.
- CTEVT affiliated schools also run the similar types of training programs. The number of affiliated institutes under CTEVT is about 150. Most of them are on Health and nursing programs. The CTEVT regulates the quality mainly through examination and curriculum. The management of these private schools is managed by themselves.
- CTEVT Annex Program: To increase the access of school dropouts, CTEVT started annex program 5 years ago. The general schools are supported to run technical training with CTEVT curriculum and with schools resources and management. At present there are 17 annex program running all over the country
- Technical institutes affiliated through Universities. Mainly Tribhuvan University has been running its technician programs in many of its training campuses. Besides that they also give affiliation to private institutions to run the technical training programs.
- Government agencies like Department of Labor and Employment (DoLEP), Department of Cottage and Small Industries (DCSI), Cottage and Small Industries Development Board (CSIDB) and some other ministries also run short term

livelihood trainings to promote employment and self employment.
  - Besides that various development agencies and national and international agencies provide technical and vocational training in various their working fields.
  - Secondary Schools: TEVT courses are also offered through the general education schools with simple purpose of providing a general orientation to occupation. These schools education are class rooms base and less significant on skills acquirement.

Major Government policies regarding TEVT

CTEVT Act 1989 (Amended 1993, 2004, 2006)

It is evident that Nepal took several decisions regarding TEVT sector since 1930. The first education plan (1954), National Education Plan (1971), Technical School Plan (1979) are worth mentioning. The present scenario developed after CTEVT Act 1989.

- Council for Technical and Vocational Act 1989. The mandated mission of CTEVT is to formulate policies, ensure quality control, coordinate TEVT related stakeholders, provide services to facilitate running TEVT programs, prepare and facilitate to prepare basic and middle level skilled human resources for economic development through out the country. In order to achieve its mission and vision CTEVT has set the following goals:
  - Ensure organizational stability and continuity
  - Develop policies for developing TEVT sector
  - Coordinate TEVT stakeholders for enhancing efficiency effectiveness, and responsiveness
  - Provide services to the TEVT sector
  - Increase self-reliance through incoming generating activities
  - Prepare competent workforce for TEVT sector
  - Develop, expand, and promote training as the basis of employment
  - Enhance access and equity in TEVT activities
  - Encourage participation of business and industries in TEVT activities.

National Policy on Technical and Vocational Training adopted by CTEVT with provisions of CTEVT Act 1989. (1999)

After ten years of existence in 1999, as per the provision on CTEVT Act 1989, CTEVT adopted the following policies and implied to follow the same by the concerns that are running TEVT programs with public fund. However, the full implementation of policy is far away things because of many agencies involved and complexity of coordination aspects.

The overall TEVT policy is to:

- Maximize the opportunity for entry into TEVT programs by creating networking to cover as broad segment of the population as possible , expand the TEVT working areas to cover the both public and private sector and open equal opportunity for the underprivileged section of the community regardless of their, caste, gender, and location.

- Develop TEVT as a separate stream in the national education structure allowing it to produce up to advanced level workforce. As a support system , there will be programs for vocational guidance and counseling services to the potential technical workforce in general education stream
- Link TEVT programs with national economic, industrial and employment policy
- Involve user agencies (business, industries and labor market partners) in developing and strengthening TEVT sector
- Create an environment for industry based training program to increase the involvement of business and industries.
- Ensure that all TEVT programs are based on occupational classification and standardization
- Ensure that workforce has skills certificates to enter national and international job market.
- Incorporate employability skills in all TEVT programs
- Strengthen managerial, technical and administrative capabilities of training providing institutes
- Strengthen professional capabilities of TEVT personnel
- Retain and maintain qualified workforce in TEVT sector
- Ensure a system of authority delegation and institutional accountability
- Ensure a national instructors licensing system is in place
- Strengthen and increase research capabilities of the TEVT sector
- Ensure that all TEVT programs are demand driven
- Ensure government grants and supports are effectively and efficiently utilized
- Streamline public run TEVT programs through a national coordinating body
- Ensure that Labor Market Information System (LMIS) is in place
- Ensure that career information and employment support centers in the regions are in place to promote employment and training opportunities
- Seek support and share experience from among international communities for the development and expansion of TEVT sector
- Create a favorable environment for traditional skills
- Strengthen CTEVT as a nationally mandated governing body to execute TEVT policy

High level National Education commission, 1998

- Effective coordination should be establish among various stakeholders
- A national network of TEVT institutions should be establish to develop skilled workers who are easily employed or self employed
- An overall policy of TEVT sector should be formulated and implemented

- Government and Non- Government trainings providers should be provided services such as training assessment, curriculum development and training of trainers
- Autonomy should be provided to training centers of CTEVT with the latter becoming more self-sustaining.
- Tuition and other fees determination should be based on trainees financial capability. Poor people, disabled and other disadvantage group should either not have to pay fee or should be provided with scholarships
- Mobile and other outreach model of trainings should be increased for marginalized population
- Greater emphasis should be made on qualitative improvements in the process of determining equivalence, examinations, skills testing and accreditation
- Unemployed people who had taken skills trainings before should be provided with entrepreneurship skills to use their technical skills
- Functional autonomy should be provided to units for providing skills testing services, training of trainers, and management of training with the view of quality improvement
- Talent and skills should be interlinked with a view to strengthen socioeconomic development, environmental and democratic values and norms

The Tenth Plan National Planning Commission (NPC, 2002)

The plan proposes to:

- To implement programs on literacy , post-literacy , income generation and on other non-formal education particularly assisting women and marginalized population in increasing their living standards
- To expand and develop quality education required for the development of the country , and to make easily available quality primary education for all
- To supply the basic and medium level skilled technical human resources required for the country
- To develop human resources for the production of internationally competitive skilled resources that supports the national economy for the all round development of the country and to use education as a strong vehicle for economic and social development as well as reduction of poverty
- To develop sports and youth mobilization programs for producing capable, good and disciplined citizen for modern world

Specific targets are:

- The setting up of additional technical schools and multi-technological colleges for regular long term training to 7,100 trainees and short term 23, 555 trainees

- The running of an annex program at 75 community schools – at least one school at each district.

Issues

- General education stream does not have adequate provision to acquire skills knowledge and attitude required to go to world of work, though the number of unsuccessful student to pass SLC each year is 50% that is 150, 000 and most of them seek for employment but do not get opportunities to decent work.
- Business and Industries are less interested in recruiting and promoting their workforce as a novice worker. Workforce poaching is in rampant. Most of the advertisement on position vacancies seek for expert worker rather than trainee employee
- Business and industries feel comfortable to recruit foreign workers from across the boarder as there is no strict implementation of work permit provisions.
- The school dropouts can not initiate business ventures because of the state does not have strong strategies and programs that can boost the self employment as young entrepreneurs
- The complexities because of the insurgency situation have contributed to rise on school dropouts.
- Reluctances of general educationist to incorporate TEVT in general education and poor infrastructures in general schools has been a big challenge to promote TEVT as a campaign
- Lack of well recognized qualification framework for TEVT has been a factor for less attraction to this sector by potential students
- Difficult to manage mismatch between demand and supply of labor force as there are no reliable structured mechanism

Opportunities

- Significant number of youth (200,000/year) are without skills required by business and industries
- Public and other provision can address only segment of this mass that requires training for employment
- State, donors, and social welfare organization are keen to work on training and development areas.
- Foreign employment has been one of the important factor for contribution on GDP, hence people will be in better position for earning if they are equipped with modern technological skills and knowledge
- **Current political changes seek for rehabilitation of those who are internally displaced. Skills and employment could be one of the strategies to solve this problem**

Conclusion

The youth of the nations are economic, social and agents to protect environmental degradation are assets of the nation, if they are appropriately trained. The present mechanism for developing middle level human resources required for the country

involves Council for Technical Education and Vocational Training. The public contribution as the budget for CTEVT is less than one percent of total budget of HMG. But when unemployment and relevancy of education is the concern, CTEVT has to take all the criticism for not responding to the needs of mass population specially the youth.

The growth of CTEVT is further crippled by Shahi Ordinance, which brought the organization under Secretary of Ministry instead of elevating to prime minister. The major problems that should be addressed by the Loktantrik government to develop appropriate technical human resources through training that can be categorized in facets like access, quality finance, and mechanism.

Access: Access to quality education, specially technical and vocational education and training is far away things for Nepali youth who are in severe need of skills and knowledge required for employment and self employment. Seventeen Technical Schools run by CTEVT, training centers of Department of Cottage and Small Industries (DCSI) , Skills supply centers of Department of Labour Employment Promotion (DOLEP)'s for short term trainings are few to mention. These are far less than that is required by the youth population as we see 150 thousands fail the SLC examination even if the pass rate is 50 percent. The accesses to the need are hampered by many factors mainly geographic and finance. Hence state should come up with as many training centers as possible to make it easily accessible to the needy people of remote population of Nepal. Specific programs should be designed to cover schools dropouts who want to go to world of work.

Quality: The second facet of the problem developing basic and middle level technical workforce is associated with the quality of trained human resources. The basis for quality measurement in TEVT sector is employment or self-employment. The aspects of quality like relevancy, need base, quality instruction and environment of learning, duration and timing of trainings are to be adhered strongly while determining and executing the training programs. Qualified trainers can significantly improve the performance of individual trainees in all aspects of skills, knowledge and attitudes, hence qualified and trained trainers should be in abundant to run the training programs. The attitude of public institutions just fulfilling the meeting the target of training numbers should be discouraged.

Finance: The third facet of problem, the resources mainly financial should be dealt in priority manner by the state. Those who can afford higher education are subsidized by the state comparatively higher than those who can not afford higher education and should opt for TEVT. Again aloofness of business and industries to contribute to develop basic and middle level technical human resource for the country is significantly prevalent in our context. The participation of business and industries to develop basic and middle level human resource is a must and the state should have plan and program to bring them in this endeavor. Several models of the participation of business and industries can be found and adopted according to contextual need.

Mechanism: To achieve goals perceived, an effective and efficient mechanism is required. Present mechanism even though has some merits needs massive overhauling. The present mechanism of the state in TEVT sector does not respond to the coordination need of the sectors as far as Human Resources Development (HRD) is concern. Various organizations are providing training without any quality frame and contributing to non standardization of technical education and vocational training. The Council for Technical Education and Vocational Training has not been as effective as it should have been for the sake of coordination and standardization of TEVT sector as anticipated by Council Act 1989. Reengineering and strengthening of

the council for the desired purpose is the need of the hour and should be dealt appropriately.

- **In general:** As we all agree that people with skills and knowledge are assets of the nation while people without it are liabilities; especially it is true for youth who are work bound. The process of converting liabilities into assets is training and development. The welfare state takes the responsibility of converting liabilities into assets to make the nation prosperous. Many countries of the world, which do not have natural resources, have become most prosperous nations because of its competent human resources. Development of capable people to generate ideas, convert ideas into pragmatic output, utilizing natural resources efficiently and effectively for the benefit of human being can be done through the strength of competent technical human resources which the state should have in top priorities.

References

- Central Bureau of Statistics, National Planning Commission Secretariat (1999). **Report on the Nepal Labour Force Survey. Kathmandu Nepal**
- Central Bureau of statistics**,** National Planning Commission, Secretariat **(2002), Population Census 2001, UNFPA (2002)**
- National TEVT policy (1999), CTEVT, Sanothimi, Bhaktapur
- Nepal Information Technology for Nepal's Development in the 21st century. Proceedings Vol. l 1999: Royal Nepal Academy of Science and Technology, Kathmandu, Nepal
- School Level Statistics of Nepal, Nepal government, Department of Education, Research and Education Information Management System, 2004, Sanothimi, Bhaktapur, Nepal
- PRSP strategy paper, National Planning commission,2002, Kathmandu, Nepal

Republic of Korea

This research paper consists of three parts; first, the current situation around the young populations' transition into the labor market in Korea is suggested, second, the content of the related policy is presented, and third, further policy issues are raised.

1. Current Situation

An evident indicator of the problems in the young populations' transition into the labor market is the high unemployment rate. Also, it is a problem that the quality of the job is not as satisfying as expected for those who successfully acquired it, let alone the mismatch with their major in colleges. Such is the result compositely derived from problems in the nurturing, supplying, and demanding parts around young human resources.

1) Inflation in higher education without due quality

For the last 30 years, the number of graduates in universities and junior colleges in Korea has soared. As illustrated in the table 1, the number of graduates of universities is about 270,000 as of 2006, which is nearly 9 times higher than 30,000 in 1975. For junior colleges, such an increase is even clearer. The number of graduates in 1975, about 20,000 skyrocketed to about 220,000, more than 11 times (cf. table 2). Such a rise is due to the expanded advancement into the higher educational institutions rather than to the increase in the number of the age group concerned, itself (cf. table3).

Whereas the inflation in higher education progressed rapidly, the Korean economy and industrial structures did not change fast enough to catch up with the supply of these college graduates. As a result, the imbalance in supply and demand side was predicted. What is more critical is that the increase in higher education was accompanied by degradation in its quality. The number of undergraduates per teacher, one of the representative indicators of the quality of education, assures us of this result. Both in universities and junior colleges, the number of undergraduates has increased for the last 30 years, which is even more apparent in junior colleges.

<Table 1> Number of University Graduates

(Unit: Person (%))

Year	1975	1980	1985	1995	2000	2005	2006
Total	33,610 (100.0)	50,161 (100.0)	122,915 (100.0)	187,789 (100.0)	214,498 (100.0)	268,833 (100.0)	270,546 (100.0)
Field of Humanities	4,115 (12.2)	6,248 (12.5)	19,649 (16.0)	29,378 (15.6)	32,397 (15.1)	39,258 (14.6)	39,036 (14.4)
Field of Social Sciences	7,622 (22.7)	9,314 (18.6)	27,962 (22.7)	47,310 (25.2)	56,749 (26.4)	69,926 (26.0)	72,367 (26.7)
Field of Education	12,777 (38.0)	19,339 (38.6)	21,001 (17.1)	16,760 (8.9)	12,400 (5.8)	14,632 (5.4)	15,156 (5.6)
Field of Science and Engineering	2,575 (7.7)	3,515 (7.0)	41,600 (33.8)	72,112 (38.4)	85,546 (39.9)	105,860 (39.3)	103,950 (38.4)
Field of Medicine and Pharmacy	2,430 (7.2)	3,764 (7.5)	7,438 (6.1)	7,204 (3.8)	9,202 (4.3)	12,466 (4.6)	12,640 (4.7)
Field of Art and Physical Education	4,091 (12.2)	7,981 (15.9)	5,265 (4.3)	15,025 (8.0)	18,204 (8.5)	26,691 (9.9)	27,397 (10.1)

Data: Ministry of Education and Human Resources Development, Educational Statistical Annual Reports

<Table 2> Number of Junior College Graduates

(Unit: Person (%))

Year	1975	1980	1985	1995	2000	2005	2006
Total	19,702 (100.0)	17,207 (100.0)	73,927 (100.0)	143,504 (100.0)	223,489 (100.0)	228,763 (100.0)	222,973 (100.0)
Field of Humanities	0 (0.0)	0 (0.0)	1,182 (1.6)	6,032 (4.2)	10,375 (4.6)	12,159 (5.3)	10,853 (4.9)
Field of Social Sciences	367 (1.9)	1,983 (11.5)	13,266 (17.9)	33,308 (23.2)	56,051 (25.1)	54,811 (24.0)	56,204 (25.2)
Field of Education	10,603 (53.8)	6,724 (39.1)	6,615 (8.9)	6,814 (4.7)	9,947 (4.5)	10,226 (4.5)	9,598 (4.3)
Field of Science and Engineering	2,282 (11.6)	4,106 (23.9)	36,877 (49.9)	66,211 (46.1)	100,987 (45.2)	91,612 (40.0)	84,755 (38.0)
Field of Medicine and Pharmacy	609 (3.1)	1,824 (10.6)	5,891 (8.0)	15,407 (10.7)	19,170 (8.6)	21,560 (9.4)	22,168 (9.9)
Field of Art and Physical Education	5,841	2,570	10,096	15,732	26,959	38,395	39,395

	(29.6)	(14.9)	(13.7)	(11.0)	(12.1)	(16.8)	(17.7)

Data: Ministry of Education and Human Resources Development, Educational Statistical Annual Reports

<Table 3> Changes in University and Junior College Entrances

(Unit: %)

	1975	1980	1985	1995	2000	2005	2006
General High School	41.5	39.2	58.8	72.8	83.9	88.3	87.5
Vocational High School	8.8	11.4	13.3	19.2	41.9	67.6	68.6

Data: Ministry of Education and Human Resources Development, Educational Statistical Annual Reports

<Table 4> Number of Undergraduates Per Teacher

(Unit: Person)

		1975	1980	1985	1995	2000	2005	2006	2006/1975
Junior College	Total	26.0	31.9	37.7	49.0	51.2	44.1	44.5	1.7
	National	19.5	22.5	20.4	22.8	28.5	26.0	25.8	1.3
	Public	23.6	20.9	18.0	35.5	38.5	38.5	38.8	1.6
	Private	29.5	34.8	41.0	50.4	52.4	44.7	45.1	1.5
University	Total	21.6	29.7	35.7	26.5	27.6	25.7	24.9	1.1
	National	16.1	24.7	28.3	21.5	22.9	20.9	20.4	1.3
	Public	7.9	25.2	33.3	32.0	28.2	26.5	26.6	3.4
	Private	24.8	32.3	39.2	28.4	29.3	27.3	26.4	1.1

Data: Ministry of Education and Human Resources Development, Educational Statistical Annual Reports

2) Education and Training System without Relevance to Labor Market

The link between education and labor market can be grasped through approaches as follows. First, it can be measured to some degree by means of a survey into the companies' satisfaction level for higher education. In spite of its limitedness of scope, a rough understanding of the relatedness of current higher education and labor market is possible through this attempt. According to a survey by FKI(Federation of Korean Industries) among 206 member companies in 2003, 78.6 percent of the answered companies revealed that they hoped some parts of their trainings and education for the newly employed to be done in higher educational institutions. Such an answer shows that a majority of companies have something to be desired under the current higher education, which also implies a weak connection between education and labor market.

<Table 5> Enterprise Views on the Necessity to Add College Curricula

Division	Corporate Number	Rate (%)
Addition of Curricula Required	162	78.6%
Addition of Curricula Not Required	44	21.4%

Data: Federation of Korean Industries, Survey of College Curricula Sought by Enterprises, 2003, p.5

Second, an investigation into the employment status of college graduates also indicates the current situation between education and labor market. Regarding the connection between majors and employment among college graduates, the KRIVET (Korea Research Institute for Vocational Education and Training) conducted a survey into the employment realities of 2002 junior college and university graduates. The result showed that roughly 30% of the respondents had jobs unrelated to their majors. This seems to reflect, to a certain degree, that an oversupply of human resources occurs, compared to the demand in the market. In conclusion, the survey suggests that supplying institutions do not provide due education that meets the demand in the market.

<Table 6> Relation between Employment and Major (University)

(Unit: Person (%))

	Is your current job closely related to your college major?				
	Not at all	Little	More or less	Very	Total
Total	877 (16.7)	637 (12.1)	1,647 (31.4)	2,092 (39.8)	5,253 (100.0)
Field of Humanities	196 (26.2)	136 (18.2)	223 (29.9)	192 (25.7)	747 (100.0)
Field of Social Sciences	215 (18.9)	183 (16.1)	453 (39.7)	289 (25.4)	1,140 (100.0)
Field of Education	27 (6.3)	14 (3.3)	90 (21.1)	295 (69.2)	426 (100.0)
Field of Engineering	188 (13.2)	163 (11.5)	489 (34.4)	582 (40.9)	1,422 (100.0)
Field of Science	202 (23.9)	111 (13.1)	245 (29.0)	287 (34.0)	845 (100.0)
Field of Medicine and Pharmacy	6 (3.8)	3 (1.9)	15 (9.5)	134 (84.8)	158 (100.0)
Field of Art and Physical Education	43	27	132	313	515

	(8.3)	(5.2)	(25.6)	(60.8)	(100.0)

Data: Korea Research Institute for Vocational Education and Training (KRIVET), Employment Reality Survey of Junior College and University Graduates, 2003

<Table 7> Relation between Employment and Major (Junior College)

(Unit: Person (%))

	Is your current job closely related to your college major?				
	Not at all	Little	More or less	Very	Total
Total	1,165 (23.3)	688 (13.7)	1,394 (27.8)	1,760 (35.2)	5,007 (100.0)
Field of Humanities	97 (31.7)	63 (20.6)	92 (30.1)	54 (17.6)	306 (100.0)
Field of Social Sciences	233 (25.9)	151 (16.8)	290 (32.2)	226 (25.1)	900 (100.0)
Field of Education	141 (22.7)	44 (7.1)	108 (17.4)	327 (52.7)	620 (100.0)
Field of Engineering	397 (23.4)	297 (17.5)	582 (34.3)	419 (24.7)	1695 (100.0)
Field of Science	236 (19.4)	104 (8.5)	255 (21.0)	622 (51.1)	1,217 (100.0)
Field of Medicine and Pharmacy	59 (24.4)	27 (11.2)	62 (25.6)	94 (38.8)	242 (100.0)
Field of Art and Physical Education	2 (7.4)	2 (7.4)	5 (18.5)	18 (66.7)	27 (100.0)

Data: Korea Research Institute for Vocational Education and Training (KRIVET), Employment Reality Survey of Junior College and University Graduates, 2003

3) High levels of expectancy

To look into the young population's expectation levels for their jobs, this study compared the reservation wages of the unemployed with those actually offered to the employed. The reservation wages were calculated by asking the minimum wage expectancy during the KREVIT's survey into the employment realities of 2002 junior college and university graduates.

According to the survey, the average reservation wage was 1.62 million won. Table 8 illustrates the comparison between the reservation wage of the unemployed and

the real wage of the employed. The reservation wage level is higher than the monthly average wage (1.49 million won) of the employed. It is somewhat lower than the wage level of the employed at large enterprises, but 20% higher than that (1.34 million won) of the employed at small & medium enterprises. Such result suggests that there is a high possibility that young job seekers are likely to refuse employment offers made by small & medium enterprises.

<Table 8> Current and Reservation Wages

(Unit: 10,000 won)

Monthly Average Wage	Average	Standard Deviation
Wage of Employed Persons	148.9	60.3
Large Enterprise	173.0	56.8
Small Enterprise	134.0	59.1
Reservation Wage of Unemployed Person	162.4	47.4

Data: Korea Research Institute for Vocational Education and Training (KRIVET), Employment Reality Survey of Junior College and University Graduates, 2003

4) Changes in Recruitment System

It is also necessary to understand the change in labor markets in that it is becoming less friendly to the young population. For example, the employment rate of experienced persons is noticeable. As shown in Table 9, the employment of experienced employees drastically expanded at major enterprises, such as 30 major chaebols (conglomerates), public corporations, and financial institutions. The percentage of the experienced among newly employed persons rose from 34.8% in 1996 to 81.8% in 2002.

<Table 9> Changes in Employment of Experienced Employees at Major Enterprises

(30 Largest Enterprises, Public Corporations and Financial Institutions)

	1996	1997	1998	1999	2000	2001	2002
Employment of Inexperienced Persons	65.2	60.7	45.3	27.1	21.7	21.3	18.2
Employment of Experienced Persons	34.8	39.3	54.7	72.9	78.3	78.7	81.8

Data: Ministry of Labor, Employment Insurance DB

Moreover, the so called “decent job” preferred by young population is greatly decreasing. Those job positions offered by top thirty big companies, public companies, financial companies has recently decreased by 326,000 for the last five years.

<Table 10> Changes in Number of the Employed at Major Enterprises
(30 Largest Enterprises, Public Corporations, and Financial Institutions)

(Unit: 1,000 Persons)

1997	1998	1999	2000	2001	2002	2002-1997
1,573	1,407	1,321	1,319	1,234	1,247	-326

Note: As of October annually Data: Ministry of Labor, Employment Insurance DB

5) Dual Labor Market

Under current situation, a mismatch of human resources is problematic both in young population in need of jobs and small & medium companies in need of human powers. According to the Ministry of Labor's Report on Labor Force Demand Survey, there was a demand for 200,000 workforces, which was mainly made by small & medium enterprises (Cf. Table 11).

In such circumstances, an ideal solution would be guiding the young jobless to work for small & medium companies for both of them. However, the problem is that the young jobseekers do not want to be employed at small & medium enterprises. This is, above all, because of the poor working conditions, for example, wage. In small & medium enterprises, the wage level is no more than 70% of at large workplaces. Moreover, the industrial accident rate is 2.8 times as high as that of large workplaces (Cf. Table 12). In addition, small enterprises have a greater risk of bankruptcy than large enterprises, thus exhibiting relatively lower employment stability.

<Table 11> Situation of the Workforce Shortage by Establishments Size(2006)

(Unit: Person, %)

Division		Lacking Staff	Component Ratio	Insufficiency Ratio
Under 300 Persons	5-9	69,000	33.7	5.10
	10-29	60,000	29.2	3.99
	30-99	40,000	19.5	3.42
	100-299	28,000	13.5	3.23
	Subtotal	197,000	95.9	96.0
300 Persons or More	300-499	3,000	1.6	3.11
	500 or more	5,000	2.5	0.48
	Subtotal	8,000	4.1	4.00
All sizes		205,000	100.0	2.74

Data: Ministry of Labor, Report on Labor Force Demand Survey, 2006

<Table 12> Comparison of Working Conditions between Large and Small & medium Enterprises (Monthly Average, 2006)

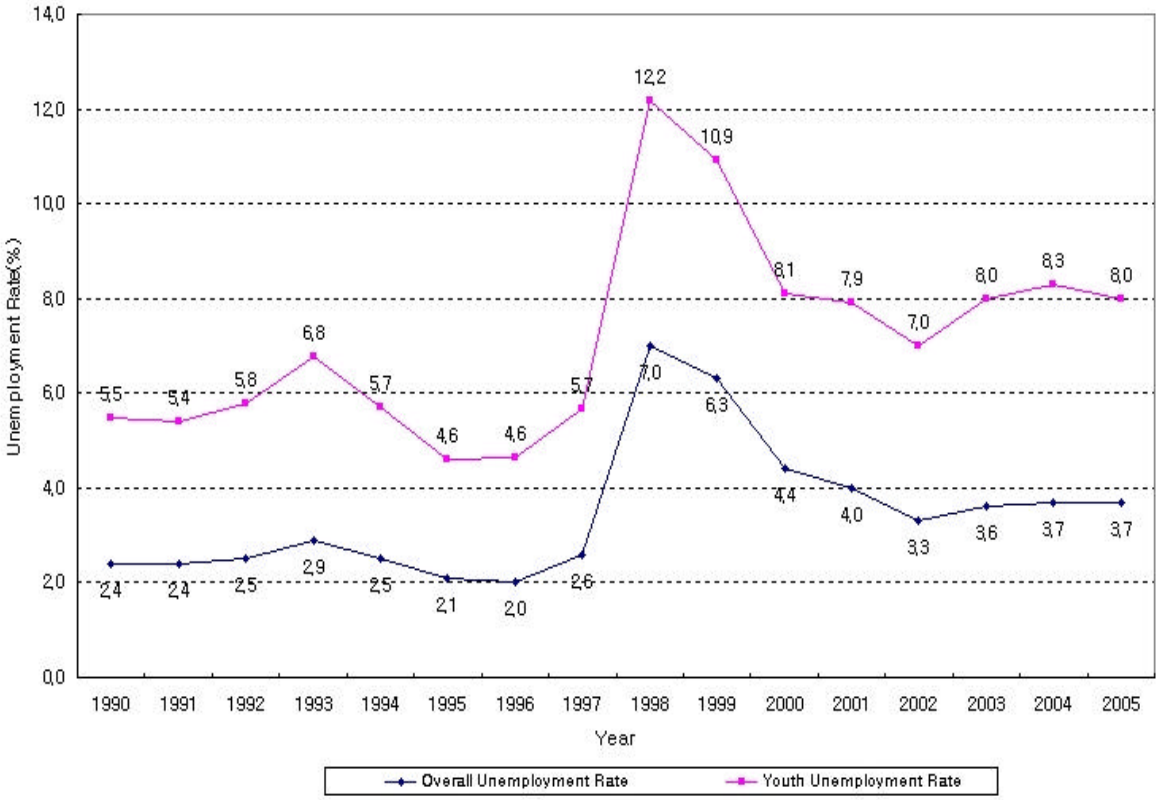
Division	Wage Level	Working Hours	Extra-legal Welfare Costs	Industrial Accident Rate
Large Enterprises	3.2 million	183.8	230 thousand	0.34%
Small & Medium Enterprises [Comparison with Large Enterprises]	2.24 million [70%]	192.9 [105%]	130 thousand [57%]	0.94% [2.8 times]

Note: Extra-legal welfare costs are based on 2005 figures

Data: Ministry of Labor, Monthly Report on Labor Statistical Survey (Oct. 2006)

6) High Unemployment among Young Population

<Figure 1> Changes in the Unemployment Rate



<Figure 1> illustrates the time-series changes in the youth unemployment rate in Korea.

Sharply rising to 12.2% in 1998 immediately following the IMF Crisis, the youth unemployment rate continuously decreased in the period that saw the overcoming of the foreign exchange crisis and the ensuing economic recovery, but has again increased since 2002 in the aftermath of an economic recession

Nevertheless, the numeric value of youth unemployment in Korea is lower than other major advanced countries. Considering this fact, youth unemployment problem may seem less serious in Korea. However, in the sense that the youth unemployment rate is, when compared with overall unemployment rate, relatively higher in Korea than in other advance countries, it can be assumed that the unemployment problem among the younger population is more serious than other age groups in Korea.

<Table 13> Unemployment Rates in Major Advanced Economies in 2005

(Unit: %)

	South Korea	US	Japan	France	Germany	UK
Overall Unemployment Rate (A)	3.7	5.1	4.4	9.5	9.5	4.7
Youth Unemployment Rate (B)	10.2	11.3	8.7	22.8	15.2	11.8
Difference (B/A)	2.8	2.2	2.0	2.4	1.6	2.5

Note: "Younger population' refers to those people aged between 15 and 24 years of age (16 - 24 in the U.S. and the U.K.) according to OECD standards

Data: OECD, Employment Outlook, 2006

As to the length of period required for getting a job, quite a long period of time takes due to the unfavorable employment conditions for the young population (Cf. Table 14). On average, it takes 12 months for a young wage worker to find the first job after leaving schools. The long-time jobless, those who have been unemployed for more than two years, account for 15.5%.

<Table 14> Period Required for First Employment of Wage Workers among Young Graduates and Drop-outs

(Unit: 1,000 Persons, (%))

	Wage Workers	Less than 3 Months	Less than 3-6 Months	Less than 0.5-1 Year	Less than 1-2 Years	Less than 2-3 Years	3 years or More	Average (Month)
Total	4,530 (100.0)	2,425 (53.5)	520 (11.5)	419 (9.2)	465 (10.3)	239 (5.3)	463 (10.2)	12

Data: National Statistical Office, Additional Survey of the Economically Active Younger Population, 2006

2. Contents and Problems of Policy Response

In this chapter, the governmental policies to deal with the young population's unemployment are sketched along with a diagnosis of its problems in terms of efficient usage of young human resources.

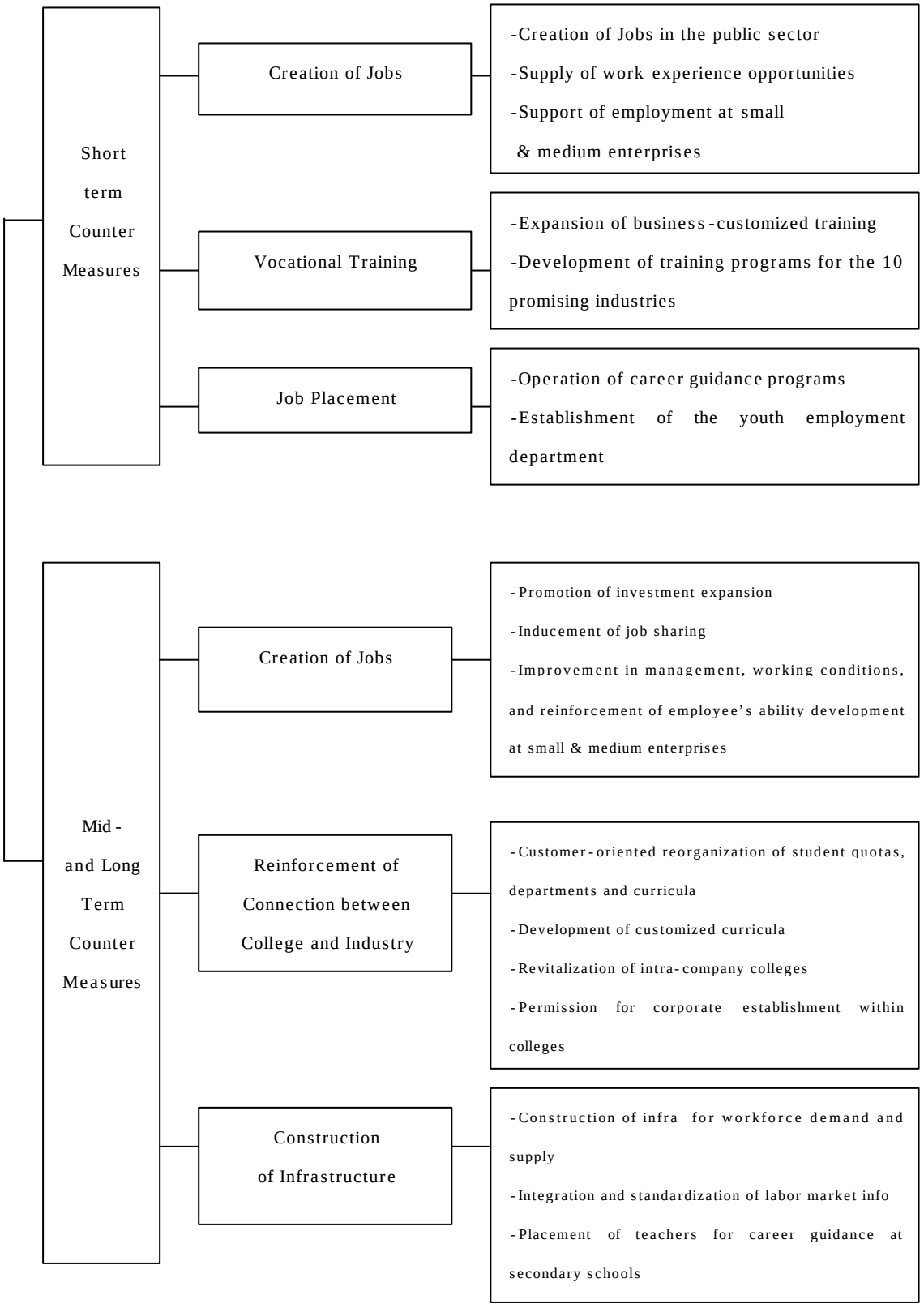
1) Policy contents

Governmental countermeasures against youth unemployment, led by the Ministry of Labor, may be divided into short-term and long-term responses (Cf. Figure 2).

Firstly, short-term countermeasures primarily comprise of the creation of jobs, vocational training, and job arrangement, and etc. The creation of jobs is pursued in three main ways: the creation of jobs in the public sector, the expansion of internship opportunities, and the support for employment at small & medium enterprises. In terms of vocational training, the training customized for each target and business needs to be expanded. On the other hand, one-stop services are to be provided for job arrangement, career guidance, and work experience programs, by establishing a youth employment support department at the Public Employment Service Center, so as to develop efficient job placement programs.

The mid- and long-term countermeasures essentially consist of the creation of jobs through investment expansion, the reinforcement of the connection between college and industry, and the construction of infrastructure, and etc. In order to create new jobs, the expansion of investment needs to be promoted through fostering the 10 promising industries. To strengthen the connection between college and industry, a customer-oriented reorganization of the student quota, departments, and curricula is also required along with the support for developing customized curricula, in which departments and divisions are operated according to the contracts with industries. For constructing an adequate infrastructure, the system is going to be structured to incorporate, standardize, and manage information related to the labor market by 2007. The career guidance programs are to be developed and distributed as well as placing a teacher in charge of career guidance at each school.

<Figure 2> Outline of Comprehensive Measures for Dealing with Youth Employment



2) Problems in the Korean Government's Policy Responses

The problem appears to be that governmental policies are being driven by short-term and transient countermeasures. A further problem is that the budget is divided among a number of different countermeasures, without much effort placed on selecting and concentrating on a certain target. It should also be noted that countermeasures that are customized specifically for the needs of the younger population are missing. Finally, policy cooperation between ministries and offices remains rather restricted. The government places great emphasis on the constructing infrastructure so as to support an efficient connection between demand and supply, but still remains unsure about how these governmental countermeasures will be executed in actuality.

3. Future Policy Tasks

Based on the discussion above, this paragraph summarizes several important implications required for further policy implementation.

First, the focus needs to be placed on the establishing a long-term and fundamental countermeasures. Above all, it is vital to foster conditions which promote the investment of foreign enterprises. Moreover, it is necessary to make efforts to develop a system that enables schools to meet the requirements of enterprises. In this regard, it is the most important to strengthen the signaling function of the market, so that colleges are better able to voluntarily restructure their programs appropriately.

Second, it is desirable that short-term countermeasures are operated only when the youth unemployment rate exceeds a certain level. Policies must be driven with priority to mid- and long-term fundamental countermeasure. Thus, it is recommended that short-term countermeasures should be applied only when youth unemployment problems are considered to have reached a sufficiently serious point.

Third, it is necessary to pursue mid- and long-term countermeasures intensively, and to monitor each countermeasure in its performance and effectiveness. Sorting out ineffective or inappropriate countermeasures for better arrangement of budgets will increase the efficiency of executing youth unemployment countermeasures, through channeling funds from ineffective to effective ones.

Fourth, it is demanded that characteristics of the young jobless should be considered in unemployment countermeasures to benefit them most. This is an indispensable step in increasing the effects of unemployment countermeasures and in minimizing the problem of deadweight loss, wherein support is offered for those who do

not require support.

Fifth, it is necessary to provide intensive support for the vulnerable class among the young unemployed who needs special governmental protection. This support requires packaged countermeasures, ranging from in-depth counseling to customized vocational training and job search assistance.

Sixth, it is also important to establish social partnerships for effective unemployment countermeasures. It is necessary to promote active participation of corporations and training institutions, and to expand the roles of local government, so that unemployment countermeasures may be established in a manner that is appropriate for regional conditions. In addition, it is vital to establish an organic cooperation system among relevant ministries and offices, for example, the Ministry of Labor and the Ministry of Education and Human Resources Development.

Sri Lanka

Policies and objectives of the Ministry of Vocational and Technical Training

The Ministry of Vocational & Technical Training is functioning under there main objectives and nine policies.

Objectives

- To impart knowledge and Skills for gainful employment.
- Poverty Alleviation.
- Create second opportunity for learning.

Policies

1. Establishment of a qualification frame work in par with internationally recognized systems.
   - National Vocational Qualifications frame work with 7 qualifications levels.
   - Development and Implementing National Skill Standards.
   - Conduct Competency Based assessment Quality Management System.

2. Improvement of relevance and quality of courses
   - Implementing Skills Standards.
   - Enforcing Quality Assurance.
   - Conduct Registration of Training Centers.
   - Conduct Course Accreditation.
   - Auditing of Quality management system.
   - Conducting Research.
   - Address Environment Aspects.

3. Establishment of Pathways for upgrading of qualification.
   - Overall Structure of Implementation.
   - Conduct courses in NVQ level from 1 to 4 at Technical Education and Vocational institutes.
   - Conduct courses in NVQ level 5 & 6 at Colleges of Technology.
   - Conduct courses in NVQ level 7 at University of Vocational Technology.

4. Improvement of operational & Management efficiency of TVET Institutions.
   - Introduce Rationalization Mechanisms.
   - Conduct Staff Training.
   - Keep linkages with local & Foreign Institutions.
   - Keep Linkages with Industry.
   - Create better learning environment.

5. Increased enrollment capacity of TVET Institutions.
   - Provision of TVET by Modes of Institutional Based Training (IBT) & Apprenticeship based training (ABT).
   - Conduct Career Guidance & Counseling for Students, Parents & Teachers.
   - Conduct Awareness Programmes.
   - Establish new Vocational Training Centers.

6. Equity of access to TVET for women, disadvantage groups and disabled.
   - Reduce the gap of unemployment rate between females & males.
   - Empower to the quality of employment of females.

- Provide gender sensitive Vocational training and diversified training opportunities for women similar approach must be taken to cater the disabled groups.

7. Promotion of self employment.
    - Facilitation for self employment. Providing Entrepreneurship training.
    - Provisions of Loans for small business and enterprises.
    - Providing Tool kits.
8. Improvement of social image of TVET.
    - Carrier Guidance.
    - Display Exhibitions.
    - Publication of LMIS Bulletin.
    - Conduct Seminars Publications.
9. Encourage Private sector to conduct Vocational Training Programmes.
    - Facilities to Registration.
    - Facilities to Accreditation.
    - Provision of Equipment.
    - Establish Public – private partnership.

Institution of Framework of the Ministry of Vocational and Technical Training

In order to understand the basic issues related to reforms and rationalization, it is necessary to have an idea of the evolution, mandates, and functions of these key agencies which are mainly responsible for policy formulation, planning, and delivery of Technical Education & Vocational Training. These are outlined under the respective headings.

- Tertiary and Vocational Education Commission (TVEC)
- Department of Technical Education and Training (DTET)
- Vocational Training Authority (VTA)
- National Institute of Technical Education of Sri Lanka (NITESL)
- National Apprentice & Industrial Training Authority (NAITA)

- **Tertiary and Vocational Education Commission (TVEC)**

The TVEC, established under Act, No. 20 of 190, is a statutory body responsible for policy formulation, co-ordination, and planning and development of Technical Education & Vocational Training. Its responsibilities include the formulation of skill standards, testing and certification procedures, and registration of training institutions. Quality of training is assured through its programmes of standard setting and accreditation of courses.

- **Department of Technical Education and Training (DTET)**

This Department has a 106 year history. It delivers formal, institutional-type training at 34 Technical Colleges and affiliated institutions located in major provincial and district capitals. In 1998, about 15,000 students were enrolled for full time and part time courses. The DTET has traditionally been with the Ministry of Education. It has now been brought under the new Ministry that is responsible for both Technical Education and Vocational Training. Thus, it has been possible to make these complementary and mutually supportive functions. This step is in line with modern trends in other parts the world.

- **Vocational Training Authority of Sri Lanka (VTA)**

Nearly forty years ago the Labour Department pioneered Vocational Training for the out-of school, unemployment youth. This is a very sensitive and vulnerable group. Over the years, Vocational Training expanded and assumed considerable importance because of its usefulness in facilitation self-employment and supplying urgently needed skills particularly of the informal sector. However, it was not possible to develop Vocational Training while it remained locked in a Government Department that is essentially meant for drafting and enforcement of labour laws. Therefore, in

August 1995, the Government established the Vocational Training Authority of Sri Lanka (VTA) as a statutory body. The training programmes of the Labour Department were brought under the VTA which continues to serve the rural, unemployed youth through employment-oriented, short courses conducted through a network of nearly two hundred and fifty Rural Vocational Training Centers (RVTCs). These RVTCs are in fact the 'satellites' of the twelve District Centers that provide Technical and other support to this network. In addition, there are three Special Vocational Training Centers that offer diversified courses. The three National Training Institutes in Colombo offer certificated level courses of longer duration.

- **National Institute of Technical Education of Sri Lanka (NITESL)**

NITE is responsible for the training of trainers (i.e. training mangers, technical teachers, vocational training instructors), and the development of curricula, training methodologies and teaching materials. In January 1999, NITE was converted to an independent statutory body separate from its former parent body, the DTET. It now has the necessary autonomy and the flexibility to respond to the diversified and expanding needs of the entire Technical Education & Vocational Training sector which now includes not only the Technical Colleges and other raining organization and institutions of the Government but also a large number of institutions run by NGOs, and voluntary, religious and other organizations. This sector also includes an increasing number of privately funded training institutions and enterprise-based, in plant and other training facilities run by the private sector companies.

- **National Apprentice and Industrial Training Authority (NAITA)**

Formal Apprenticeship is the responsibility of the National Apprentice and Industrial Training Authority (NAITA) set up under the same Act as the TVEC. It was earlier known as the National Apprenticeship Board (NAB). Apprenticeship is essentially a contract between a learner, employer and the Government which is normally the regulatory body. In our case, NAITA represents the Government. The learner agrees to be trained on-the-job under an employer for a fixed period depending on the trade or occupation. The employer is committed to provide training, pay wages according to stipulated norms. In the case of NAITA, it pays a stipend to the apprentices and not the employers. Training conducted in industry is supplemented by theoretical and related instructions given on full time or part time basis at an institution. For this purpose, NAITA operates over eighty training institutions located throughout the country. The Apprenticeship Training Institute, Automobile Training Institute, and Technician Training Institute that award Diploma level qualifications are the national level institutions of NAITA.

Training provided by other institutions of the Government and the Private Sector

In addition to the Government organizations and institutions described above, there are several specialized training institutions operated by different Ministries and Agencies. The programmes of these institutes are aimed at satisfying sartorial skills needs related to telecommunications, transport, construction, textiles and garments, and other specific fields.

The private sector operates several fee levying training institutions on commercial lines. In addition, large companies have established enterprise-based training facilities to satisfy their own training needs.

It is important to note that the major training agencies that supply the more conventional and traditional skill needs of the labour market, namely the DTET, VTA and NAITA account for nearly eighty five percent of the training provided by the state sector.

The above changes contribute to the optimization of physical and human resources and the development of complementary forms of delivery of Technical Education & Vocational Training. It is therefore seen that through these measures the country has embarked on a planned programme of development of the Technical Education & Vocational Training Sector.

The Reforms

The reforms and rationalization process of the Technical Education and vocational training sector (TVET) commenced with the elevation of Vocational Training to a Ministerial function. Major Institutions responsible for formulation and coordination, planning and delivery, training of trainers were brought under one Ministry. This was a very significant move that recognized the need to optimize the existing physical and Human Resources in the Technical Education and Vocational Training Sector.

The general Education and University Education Systems is under one Ministry. These are delivered through well structured, formal institutional systems. The students more progressively upwards through the Schools, Universities and other Institutions. The Technical Education and Vocational Training System are different and more complex. Several government Ministries and Agencies as well as the Private Sector are responsible for different types and levels of training programmes. The programmes vary in content and duration according to the educational attainments, age and experience of the learners. Those who plan and provide Technical Education & Vocational Training have a diversity of interests and overlapping mandates.

The government of Sri Lanka has taken meaningful initiatives to rationalize and streamline the Technical Education & Vocational Training (TECT) Sector. One of the most significant initiatives was to elevate Vocational Training to a Ministerial function. Since 1994 the following major institutions responsible for Technical Education and Vocational Training have been brought under one Ministry.

In the case of the TVET sector, several Government Ministries and organizations as well as the private sector operate a variety of training institutions and programmes target at different groups such as unemployed youth, rural women, and young school leavers, unskilled and semiskilled workers. This is in contrast to the general education and university education systems where students move progressively from schools, to universities and to other relevant institutions and organizations of higher learning. All these institutions come under the purview of the Ministry of Education and Higher Education. The TEVT system utilities different training delivery modes, such as formal, institutional, apprenticeship, implant and on – the job that are designed to cater to the varying educational attainments and learning abilities of different target groups. The duration of training and methodologies used depend on the levels of skill to be attained. The main aim of technical education and vocational training is to prepare students for employment. Therefore, taking it in to account the characteristics and complexities of technical education and vocational training, the government has given the highest priority to reforms the vocational and Technical Training Sector.

The Linkage between General Education, University education, and Technical Education and Vocational Training

The general perception of technical education and vocational training is that this type of education is meant for those who are out – of school and looking for work. It is thought to be an inevitable route that most students take when they fail to move up the general education ladder. This has to change. Training should no longer be perceived as some kind of welfare support for school dropouts or a temporary alternative to a job that keeps the unemployed occupied.

Students who are at the school level should make an informed decision to embark on technical education and vocational training. They should do so because they see clearly an alternate route to acquire knowledge and skills that lead them progressively to certificate, diploma and degree qualification and prepare them for productive employment and enhancement of career prospects. Entry criteria for admission to vocational training centers, technical colleges, apprenticeship schemes have been reviewed and modified so that there will be progressive paths for talented students and late developers to move upwards in the technical education and vocational training system. At the same time, necessary steps have been taken to develop two – way, lateral linkages between General and University Education and TVET. This has minimized the pressure on students to gain entrance to universities.

The Education System and the Labour Market Mismatch

Tertiary Education

There are a number of Ministers that cater to tertiary education. These include the Ministry of Skills Development and Public Enterprise Reforms, the Ministry of Vocational and Technical Training (MVTT) which includes the Tertiary and Vocational Education Commission (TVEC). Additionally, the University Grants Commission is responsible for the 15 Universities.

The tertiary education and vocational training (TVET) sector is an important strategic sector particularly in promoting employability of new entrants to the labour market. It facilities school – to – work transition for school leavers and graduates. The TVET sector in Sri Lanka comprises a mixture of planned and unplanned programs promoted by the government, the private sector, and NGO's. In August 2006, there were 1,304 training institutes registered with Tertiary and Vocational Education Commission (TVEC) comprising 704 institutions in the public sector, 462 in the private sector and 138 in the NGO sector. In additional, there are about 2500 private sector training providers operating in the TEVT sector without registering with the TVEC. Legally they are set up as businesses, rather than educational organizations. The Government has initiated several policy measures to encourage private sector training providers to register with the TEVC.

The average intake of students to TEVT sector is conservatively estimated around 65,000 per annum, mostly targeting school leavers with O/L and A/L qualifications. Existing body of evidence on post – secondary education indicates and increases in the incidence of training for those with A/L and above, but not for O/Ls and below. However, with increasing globalization and knowledge – based economic activity, the entire education system in Sri Lanka needs to be more market oriented and demand- driven especially at secondary and tertiary level.

Students that pass O/L (Grade 11) generally continue on to A/L studies. In 2004, of 299,516 students that sat fort the O/L exams, only 134,906 passed. In the O/L grades, only a small number (15,568) drop out. Low attrition combined with students repeating grades explains the relatively large number (620,426) of students enrolled in Grades 10 and 11. Each year, approximately 350,000 students enter the education systems at Grade 1. This intake is steady insofar as population growth is very low and the number is even expected to decline by 2020.
Students who complete A/L (Grade 13) compete for some 15,000 university seats in the traditional universities. Those refused admission to university have a myriad other tertiary education choices in the TVET sector.

The Government is addressing unemployment and the charging labor market through a combination of short and medium- term strategies. In the short –term the Government is exploring the possibility of expanding local and foreign employment in the skilled and semi – skilled job categories while, over the medium- term, the Government accords high priority to manufacturing based growth with increased foreign investments. This strategy requires the availability of highly trained labor, including technicians and technologists, which are presently in short supply.

The Sri Lankan labor market, however, is facing a supply – demand gap for skilled labor at the technologist and technician level. Locally, the supply of technicians and mid – level professionals is already falling short of demand while, in the foreign labor market. Sri Lanka has been continuously unable to fill a significant portion of job orders for middle- level and skilled (and higher – wage) worker categories, whose proportion among overseas Sri Lanka is increasing.

Despite the large supply- demand gap, unemployment, especially for the educated youth, is a serious concern in Sri Lanka. The large number of school – leavers lack skills necessary to obtain employment in available jobs or engage in self – employment. This situation points to mismatch of supply and demand in the labor market. These unemployed youth could be productively employed in industry if they are trained in relevant technical and vocational skills.

The TEVT sector at higher technical levels is still underdeveloped and does not have the capacity to produce sufficient numbers of qualified skilled workers for domestic industries as well as for the foreign market. The TEVT sector needs to provide expanded access to the relevant training programs throughout the country. While doing so, it needs to address issues relating to the equality and market relevance of its programs.

Key issues identified to be addressed in technical and Vocational education are:

- Lack of focus on knowledge, skills and attitudes to perform a particular occupation in a rapidly changing technical environment.
- Absence of mechanisms to ensure the quality of trainee output against set standards.
- Absence of a trustworthy qualification that reflects the level of competency of the trainee against publicly known standards.
- Internal and external inefficiencies including duplication of courses, outdated curricula and equipment, shortage of good trainers as well as in – optimal utilization of workshops, laboratories and training equipment, leading to a high drop out rate of around 30 per cent.
- Lower social acceptance of technical and vocational education and training and hence the inability to attract students to training courses.
- Gender imbalance in enrolment.
- Need for the diversification of providers and creation of an enabling environment for the private sector investment.
- Inadequate coordination and linkages among public, private and non – governmental stakeholders.
- Lack of sufficient awareness of the available opportunities.
- Need for sustainability through cost recovery and other means, and
- Inadequate linkages between technical and vocational education and general education, on the one hand, and university education, on the other.

Main issues making youth transition a problematic process

Sustained demographic pressure, social disintegration & economic stagnation are among the main factors making youth transition into the world of work a problematic process. For the most vulnerable young people, a failed transition from school to work often leads to social exclusion. Facilitation youth transition from school to work is therefore seen as a major task of education systems. In particular most governments believe that technical & vocational education can improve their employability & lay the foundation for learning throughout the life. It is frequently felt that promoting investment in TVE could be part of the answer for unemployment. Policy makers often consider vocational education & training both are formal & non- formal, as a major vehicle for equipping young people with the skills they need to earn a living. In reality a number of conditions must be met in order to confirm this view. On the demand side insufficient economic growth is often a major problem. While, the need for technical & vocational skills is likely to be high in

dynamic economies with expanding labor markets, maintaining a large TVE system is questionable in stagnant or regressive contexts, where the labor demand is falling. On the supply side choosing the right mode of delivery is also clearly important. Good management policies are another prerequisite to making TVE work.

Disadvantages of early school leaving

In a context of mass unemployment early school leavers face increasing difficulty in entering the labor market. In fact, the global trend towards increasing the level of education among the population at large makes finding employments for those groups that have been left out more difficult. A number of factors contribute to the risk of education from wage employment. They include market, institutional & social failures. While there is a strong case on the grounds of equity & social justice to focus on the youth at risk. The long term impact of past training initiatives to address the issue remains controversial. In this framework, when formulating policies the Ministry of Vocational & Technical Training of Sri Lanka has focused its attention on the particular problems faced by early school leavers & young people who lack skills on vocational & technical education.

Youth Training Schemes

Among vocational training & skills development, policy makers particular attention is given to training schemes to alleviate unemployment notably youth unemployment. Training programmes for youth mainly aim at improving participants qualifications & employability. In developed economies most school leavers find work in the informal sector & this pattern is likely to persist in the foreseeable future. It is often thought that training can play a key role in improving the ability of young people to create opportunities for themselves within the informal sector. In spite of sharp differences between informal economies, on the job training, including traditional apprenticeship predominates as the major form of skill development. Recognizing the need to build upon existing practices most training programmes targeted at the informal sector seek to support & complement this process.

Policies and strategies which support young people in the transition from school to working life.

Technical and Vocational Education sub-sector proposes to achieve a theme of “Skills for Life - Jobs for skills” providing nationally and internationally recognized training in keeping with advancing technology meeting the demand of labour markets both domestic and abroad. For this, a new network of Vocational Training Institutes (100) and Community Schools are to be set up which will facilitate an increase from 90,000 to 200,000 by 2016. The following initiatives are on-going.

To make the maximum contribution to lifelong learning for the school leavers who join the technical & vocational training sector the government of Sri Lanka has taken initiatives for the TVE systems to be open, flexible & learner oriented. The institutions which are responsible for providing training do more just than provide the learner with knowledge & skills for specific jobs. They also prepare individuals more generally for life & the world of the work. The TVE system is based on a learning culture shared by individuals , industry different economics sectors & government in which individuals are empowered to take progressively more responsibility for their own knowledge management & independent learning while public & private training providers ensure programmes that facilitate access to & through the pathways of life long learning.

TVE has an important role in reducing levels of anxiety in the midst of the constant uncertainly by providing information & knowledge, skills and competences, entrepreneurial capacity & the development of human personality. The emphasis is given in on articulation, accreditation & recognition of prior learning to enhance their opportunities. Within this spectrum TVE has a responsibility to ensure a sound initial education & training aimed at learning to learn the most precious skill for all citizens both young & adults.

The status & prestige of TVE have been enhanced in the eyes of the community & the media. This includes raising the status of teachers in TVE systems through attention to their own skills & competencies & the provision of resources for their task. It will also require strong marketing of the capabilities of TVE to its many stakeholders accompanied by a simplification of TVE in the minds of many who find its language, its products & its modalities too complete. IN the TVE sector in Sri Lanka , there is a flexibility in programme administration & curriculum design to facilitate a smooth passage through life long learning & provide continuous entry – exist & re - entry points by providing theoretical & on the job.

Training facilities career guidance & counseling

Career guidance & counseling are of the utmost important for all the clients of the education & training systems & need to be significantly strengthened. Career guidance should take into account the need of the industry, the individuals & the family and be sensitive to each learner's requirements & circumstances. Its role should be extended to prepare students & adults for the real possibility of frequent career change which could include periods of unemployment & employment in the formal sector.
Under the Vocational Training Authority of Sri Lanka 650 country-wide awareness workshops were conducted in the year 2006 to make a total of 50,000 school children, school leavers, parents & teachers aware of career opportunities & career selection. 900 career guidance programmes were implemented by the Technical colleges island wide, with the financial & technical assistance of the skill development projects funded by Asian Development Bank. 50 well equipped learning resources utilization centers were established to serve as a local network of the central LRDC in order to disseminate instructional materials, information & new knowledge & technologies relating to vocational training to the trainees & students in the public & private sectors.

Initiatives

(i) Improving the quality and relevance of programmes

To meet the criticism of the quality and the disparity of the standards of programmes,

- National Skills Standards based on competencies identified for specific occupation and a scheme of competency based assessment has been introduced.
- A unified certification system has been developed through the seven levels of the new National Vocational Qualifications, and programmes in the existing state institutions such as Technical Colleges Vocational Training Authority, National Apprenticeship and Industrial Training Authority, National Youth Service Council, have been incorporated in Levels 1-4.
- The registration of all vocational training institutions, accreditation of their courses and quality auditing by the Tertiary and Vocational Education Commission has commenced.
- Labour market linkages through job placement and support for entrepreneurship have been initiated.

The distribution of physical and human resources is still not equitable and lack of qualified staff affects the implementation of policies.

(ii) Increasing enrolment in technical and vocational institutions from secondary schools and the workface

As the total enrolment in state institutions is around 75,000 and 90,000 per year which is around one third of the number of secondary school leavers without access to university and other avenues of tertiary education, efforts are being made to improve the social image of the sub sector and to provide opportunities for the participation of the private and informal sectors, woman and those

with disabilities. There is a high failure rate and drop out rate as a consequence of poverty or the poor quality of programmes while lack of resources prevents rapid expansion.

(iii) Improving the operational and managerial efficiency of technical and vocational education institutions

Recruitment and retention of quality staff, opportunities for staff development, links with local and foreign institutions and the introduction of a quality management system have been proposed to improve efficiency in the operation and management of programmmes.

Strategies

The following strategies have been proposed for the future to achieve policy targets.

(i) Improving Quality and Opportunities for Upward career path

- Extend the scheme of National Skills Standards and competency based assessment to all occupations.
- Establish nine Colleges of Technology, one in each Province, to prepare students for levels 5 and 6 of the National Vocational Qualifications.
- Establish a National Institute of Advanced Applied Technology as a preliminary step towards establishing a University of Vocational Technology. (UNIVOTEC)
- Establishment of a Qualification Framework – seven qualifications levels; National Skills Standards; competency – based assessment; quality management system.

(ii) Ensuring uniformity in national standards

- Complete the registration of all vocational training institution and accreditation of their course.
- Implement a scheme of auditing quality in all institutions.

(iii) Promoting the relevance of courses

- Provide career guidance to students and young adults.
- Establish linkages with industry and employers to increase the employment opportunities of the output of these institutions.
- Extend the scheme of job placement and entrepreneurship training and support for self employment.
- Incorporate environmental education in the curriculum.

(iv) Increasing enrolment in technical and vocational institutions

- Increase the number of centers for institutional and apprenticeship based training, particularly in rural areas.
- Encourage the private sector to conduct technical and vocational training programmes and provide financial support where necessary.
- Recognize the Skills of craftsmen in the informal sector through the NVQ and National Skills Standards.
- Introduce special programmes to enable those with disabilities to enroll in programmes.
- Reduce gender imbalances in enrolment by motivating woman to enroll in technical courses.
- Increase the social acceptance of technical and vocational education through awareness programmes, dissemination of advocacy materials and exhibitions.

- Reduce the failure and high drop-out rate by providing quality staff and adequate facilities to these institutions.

(v) Improving operational an managerial efficiency

- Continue the resource and course rationalization programmes.
- Increase opportunities for staff development locally and overseas by linking with foreign institutions.
- Organize job fairs and support district level entrepreneurship associations.
- Develop mechanisms for ensuring effective management and monitoring.

University of Vocational Technology (UNIVOTEC)

The policy & commitment of the government to establish a university of vocational technology is to give added values to the existing vocational Training institutes & to provide avenues for middle level persons to go up to technology degree level.

The proposed University of Vocational Technology (UNIVOTEC) will have some unique features. Its degree courses are exclusively for those following certificates & diploma courses at relevant NVQ levels. Thus, for the first time in Sri Lanka , those in TVE sector will have opportunities to move up, exist laterally, gain work experience, earn an income, & return to acquire a bachelor of Technology (B.Tech) degree. As a result of negotiations that commenced in 1998, GTZ has agreed to fund the setting-up UNIVOTEC similar to the German Fachhochshule.

UNIVOTEC will focus on new & emerging fields of vocational technologies related to the new initiatives of the government aimed at harnessing local resources. Hence, the fields of study that are planned by UNIVOTEC include technologies related to: wood & wood processing, clay & ceramics, foundry & casting, welding & fabrication, manufacturing & production, & polymers, plastic & rubber.

Thailand

1. Introduction

The demand of manpower in industry and business has increased at the present day, but the problem of insufficient school leavers to meet labour market still remains. In addition the problem that they do not have some skills and knowledge required should be taken into consideration. Therefore, how to prepare the school leavers for the world of work is cruel. This paper will describe 1) the System of Education in Thailand, 2) Direction of Manpower Development, 3) Technical and Vocational Education, 4) Technical and Vocational Education, 5) Current situations of Vocational Education and 6) Conclusion

2. Education System in Thailand

Technical Vocational Education and Training in Thailand mainly organized by the Ministry of Education and the Ministry of Labor. The Education System is organized as in the Figure 1.

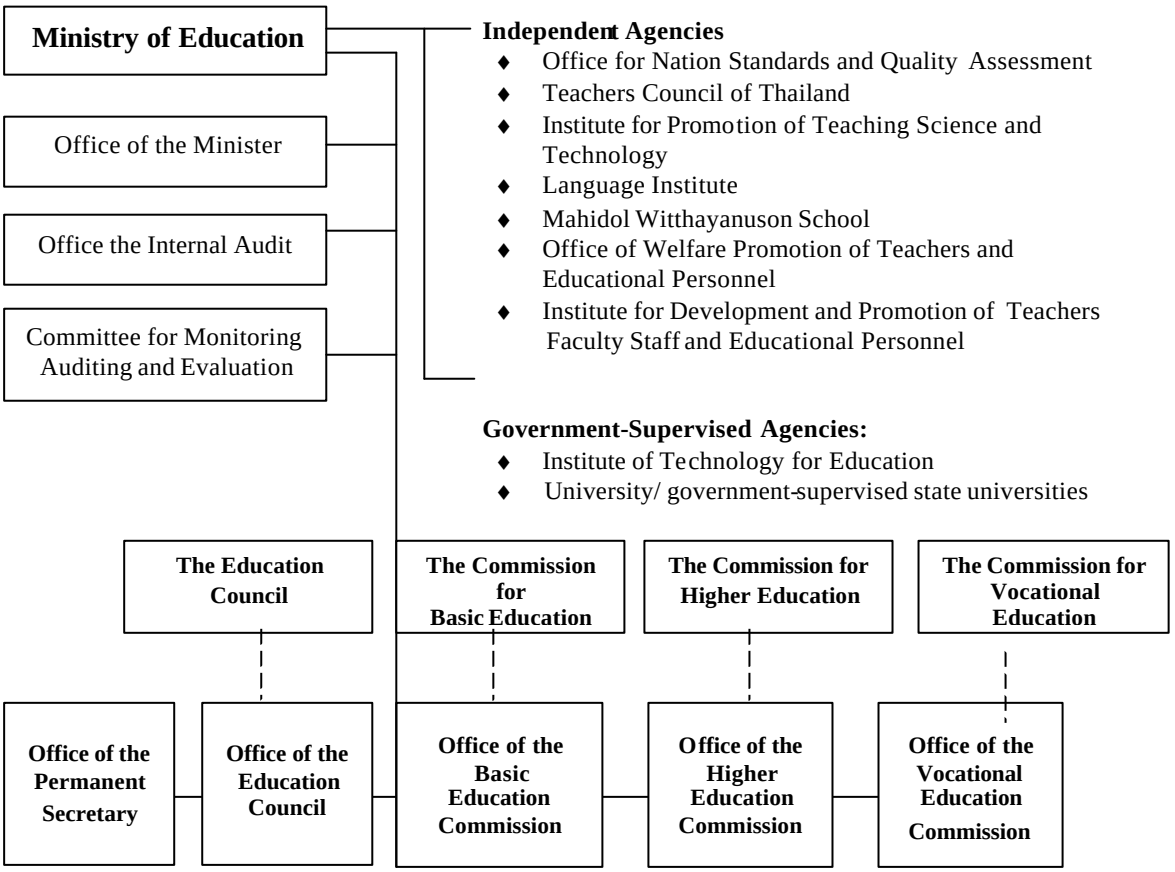


Fig 1 : Education System in Thailand

3. Direction of Manpower Development

3.1 Plan to Develop the potential of manpower under the National Economic and Social Development Plan.

The plan to develop the potential of Thai People under the National Economic and Social Development Plan places the emphasis on people being at the center of development. Every person must be developed to the maximum of his or her potential, physically, mental, knowledge and skill. Each person should become good citizens, healthy and effectively contributes to the economic and social development. At the same time each person should be conscious of, and has a role to play in preserving the natural resources, environment and culture both at the national and local levels. This will help the development of the country in a balanced and sustainable manner base on Thai values.

3.2 The Manpower Development Strategy for National Main Industry Competition

Thai government realized to develop manpower in 5 years, and provided 13 clusters of main industries in 2005. The clusters are:

Main Industries	Industrial clusters			
Niche Industry	1. Automobile	2. Fashion	3. Food	4. Software
	5. Tourism	6. Furniture	7. Rubber Products	8. Ceramics
Supporting Industry	1. Electricity and electronics		2. Mold	3. Logistics
Basic Industry	1. Petrochemical	2. Iron		

3.3 The goals of manpower development for main industry competition in 2009

The Quantitative Goal increasing proportion of high school graduates on science and mathematics to be 65 from 55% within 2009,

- increasing proportion of vocational students to be the same amount as high school students,
- increasing the number of manpower on S&T for certificate level and Diploma level,
- having the manpower as quantity and quality as the needs of

industrial goal. The Qualitative Goal

- developing skill of person on analyzed thinking, learning skill, foreign language skill, and communication skill close to industrial stand
  developing 90 % of pupils and students to have computer skill within 5 years,
- TVQ system will be leaded to perform actually.

3.3.1 Manpower demand and production capacity of Industrial Trade with the cooporation between government and private Sectors.

Industrial Target	Demand		Current number		Required number	
	Cert/Dip	Manpower	Cert/Dip (Industrial trade)	Man Power (Up-Grade Qualification)	Cert/Dip	Manpower
1. Motor vehicle and Components	82,180	663,790	1,200	40,000	27,820	201,620
2. Food	41,650	1,835,790	12,400	150,000	17,700	396,620
3.Petro Chemical	31,850	62,030	500	-	4,000	-
4. Software	42,000	1,200	9,000	400	14,820	117,820
5.Fashion, leather, gem and textile	19,000	2,398,440	2,200	8,500	10,310	139,620
6.Tourism	25,720	427,752	15,960	-	24,100	124,620

Fig 2: Manpower demand 1

3.3.2 Manpower demand and production capacity of Industrial Trade under the government policy is showed below.

Industrial Target	Demand		Present No.		Required No.	
	Cert/Dip	Man power	Cert/Dip (Industrial tread)	Man Power Up-Grade Qualitication	Cert/Dip	Manpower
1. Rubber product	10,570	342,140	640	-	3,850	136,620
2. Wooden furniture	5,770	831,130	860	-	4,820	108,620
3.Cermic	2,650	474,150	400	8,000	4,820	131,620
4. Electronic	57,930	1,805,610	10,000	35,000	20,800	161,620
5.Cust-iron mould	15,410	283,370	8,000	15,000	16,820	146,620
6. Logistics	19,370	392,000	-	-	14,820	146,620
7. Environment	18,000	-	500	-	5,300	-
8. Substitute Energy	24,980	265,800	375	10,000	4,300	144,620

Fig 3: Manpower demand 2

4. Technical and Vocational Education

4.1 The Goals of Vocational Education Reform

The Vocational Education and Technology Management is provided for preparing manpower (basic level and middle level) on various technical fields directly to the needs of enterprises and labor markets. This should process creating technology in full system, both industry and service sectors. According to the conclusions of the 13th UNESCO conference, 2001 and the ILO conference, 2000, had been bringing to create Thai Vocational Education and providing its goals in order to:

- develop human to be full of potential by environment talawareness,
- create manpower for sustainable development,
- provide life long learning,
- have vocational qualification
- provide opened and flexible learning management,

- have accredit and transfer experience,
- be an important issue of the nation,
- have standards and indicators for quality management,
- link among branches of education with further education
- work by competency-base in learning both core skill and life skill,
- be qualified man power,
- develop continuing for graduates and workers in vocational field to be equality as others.

4.2 Framework of vocational education reform

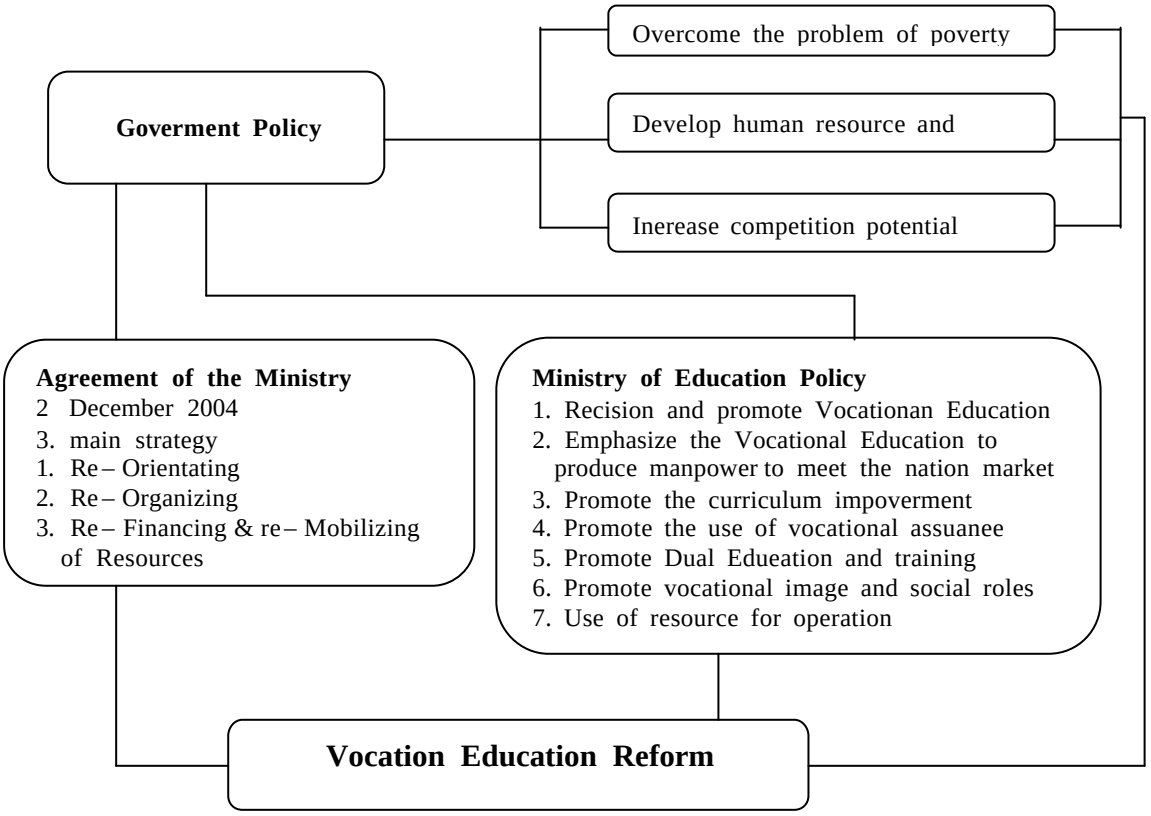


Fig 4: Framework of Vocational Education Reform

4.3 Strategy of Vocational Education Reform

Ministry of Education has established strategies of Vocational Education Reform on 2 December, 2003 which is composed of 3 sub strategies, 9 actions:

1 SI strategy : Re-orientating :

1. making the policy and plan to develop manpower of the nation
2. promoting Vocational Education Qualification (VQ) and learning reform
3. promoting the strength on research and developing innovation and technology

2 nd strategy: Re-organizing :

1. reforming administration and management system
2. developing co-operative system
3. developing quality and standard system

3 rd strategy: Re-financing and re-mobilizing of resources :

1. reforming financial and resource system
2. reforming vocational education person system
3. reforming media and technology system

4.4 The Office of VocationalEducation Commission (OVEC)

4.4.1 Roles and Responsibilities of OVEC

OVEC has an important role in proving and promoting Vocational Education and Training based on the quality and excellence of vocational skills. The roles and responsibilities of the Office of the Vocational Education Commission are to:

1. prepare a proposal of policy, development plan, vocational education curriculum and standards in every level
2. operate and coordinate vocational education standards.
3. identify the criteria, budget allocation and management of the resources of vocational education
4. develop vocational education personnel

5. promote and coordinate the management of vocational education and training both in the private sector and government, and to identify the criteria and cooperative models with other organizations and workplaces
6. monitor, evaluate and make a report on vocational education management both in government units and the private sector
7. set up the system to promote and coordinate the information and technology network and applying information and communication technology in vocational education and training management
8. carry out administrative work of the Vocational Education Commission and any other work assigned by the Vocational Education Commission
9. carry out other work sanctioned by law as being within the roles and responsibilities of the Office of the Vocational Education Commission or work assigned by the Minister or the Cabinet

4.4.2. OVEC's Programs:

Certificate in Vocational Education (Cert. Voc)

Admission through competitive entrance examination are made to the students who have completed lower secondary education (grade 9). This program is offered in 4 types :

1. This is three-year program (grade 10-12),
2. DVT is a three-year program for students who have completed lower secondary education (grade 9). The learning and training takes place at a college and company.
3. Credit Accumulating System (Cert. Voc-CAS) : By taking short course students will be awarded a Certificate in Vocational Education within 3-8 years,
4. Evening Class (Cert. Voc-EC) This program is in particular, designed for those workers in labor market who wish to further their students in the evening after work

.

Diploma in Vocational Education (Dip. Voc)

Admission are accepted through competitive entrance examination for those who have completes Cert. Voc. or upper secondary education. This program is offered in 4 types like Cert. Voc. level.

Higher Diploma in Technical Education (High. Dip. Tech)

This is a two-year program for those who have completed Dip. Voc. and intended to be a vocational teacher. Admission are through the systematic selection process.

Vocational Training:

1. Short Training Course Program (225 Hours)

This short training courses. The only prerequisite for admission is the completion of primary education. No entrance examination is required. The students must complete 225 hours, and upon completion, a certificate will be awarded. Starting salary for the graduates of this certificate level depends on their skills and ability.

2. Short Training Course (6-225 Hours)

In addition of 225 hour-program, a variety of short courses training in different areas. The duration of the courses ranges from 6 to less than 225 hours. Course duration and its contents will depend upon the interest and need of local people and community

3. Cooperative Study Training (CST)

Training for students from general secondary schools who select vocational subjects as their major, minor or elective.

4. Agriculture Short Course Training

Each College of Agricultural and Technology provides short course training for local farmers. The course contents vary according to the need of the trainees.

4.5 Number of Students Classified by Types of Courses

Types of Courses	Cert.Voc	Dip.Voc	Higher Dip.	Total
			Tech	
Trade & Industry	224.208	97,397	362	321,967
Arts & Crafts	9,066	1,549	16	10,631
Home Economics	16,287	3,822	0	20,109
Business Administration	145.628	67,640	0	213,268
Tourism Industry	8,609	3,794	0	12,403
Agriculture	18,7 45	9,541	87	28,373
Fishery	1,136	1,577	0	2,713
Textile Industrial	390	290	0	680
Information Technology and Communication	559	2,169	0	2,728
Total	**424,6281**	**187,779**	**465**	**612.872**

Fig 5 : Number of students classified by types of courses: Academic Year 2005

5. Current Situation of Vocation Education in Thailand

Figure 6 shows current number of personnel and school leavers in 2005

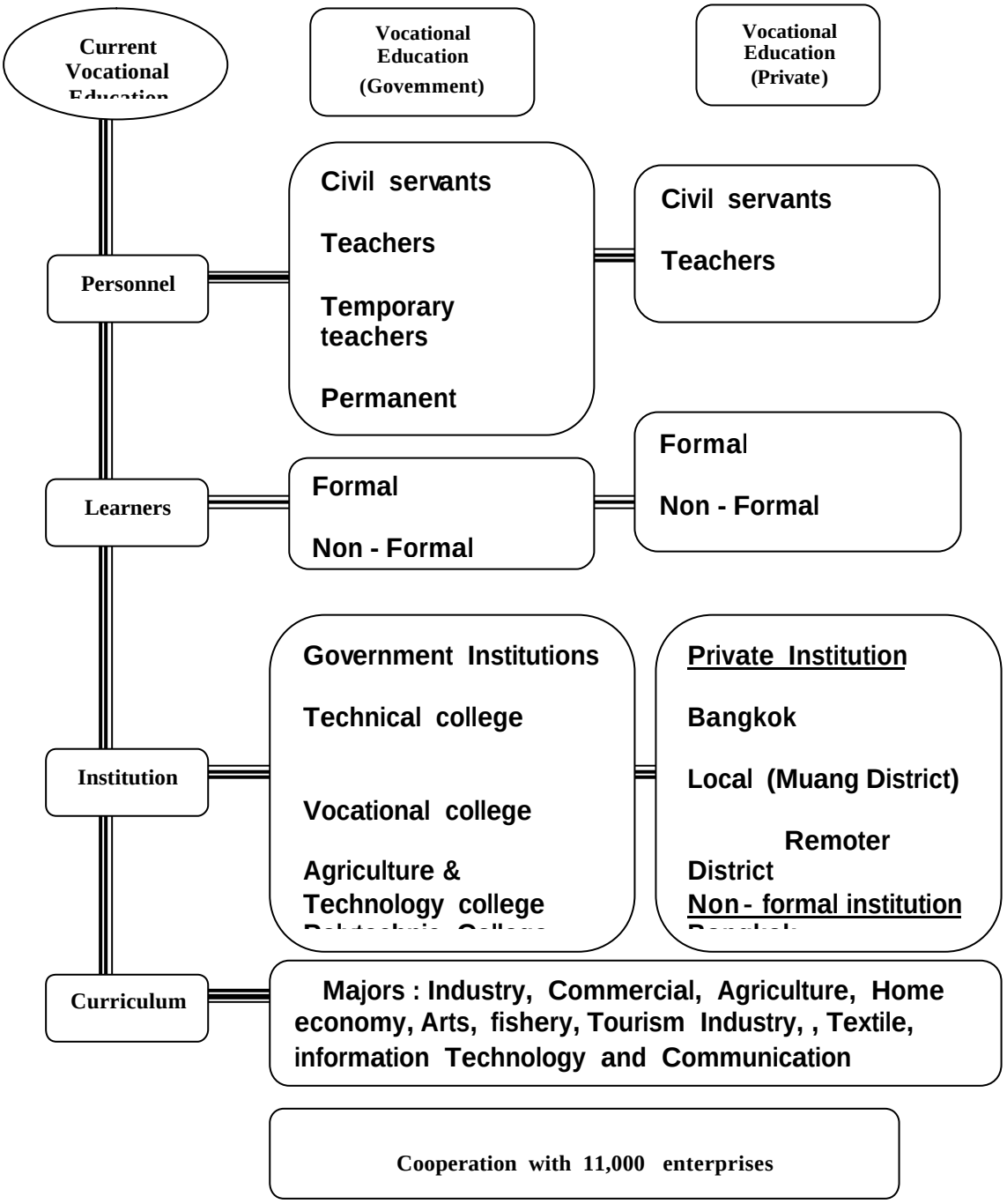


Fig 6 : Number of personnel and school leavers in 2005

5.1 Problem of Vocational Education

5.1.1 Quantity situation

Number of students in vocational fields has decreased continuously because of the following reasons:

1. They were influenced by the old value of studying in a university level.

2 Most Certificate graduates wanted to continue their study in a higher level.

3. Tendency of Diploma graduates was to continue the study in a university level resulting in a decrease of man power in operating line.

5.1.2 Quality situation

1. Produce manpower not meet the industrial needs and service target

2. Lack of attitude of working in industrial sectors. Students did not have sufficient core competency in science, mathematics, communication, ICT, research, business skills, team work and entrepreneurs. And they also lacked technical competency in technical skills and knowledge.

3. Lack of setting professional and vocational standards leading to the setting of international standards, which will help to promote man power capacity, upgrade The financial payments to middle and upper levels of employees and motivate personal development

4. There is no balance in dept of basic and specific knowledge.

5. Insufficient teaching and learning materials; the materials are not relevant to the changing technology; invaluable use of equipments and machines in some institutes.

6. A lack of personnel having specialized qualification in private vocational institutes because the limited number of personnel.

5.1.3 Administrative situation

1. A lack of planning, transferring and linking information to every sectors or it is in a limited area.

2. Cooperative networking and working link are in a limited area, especially workplaces which have not effective administrative and management systems.

3. Unable to estimate the tendency of the number of student admission correctly.

5. 2 Target Goals and Strategy of Vocational Education

5.2.1 Quality

1. Flexible criteria of admission: students can select any field they like; they can choose to learn at any institutes and at any ages.
2. Earn income during study.
3. For the ones who are in an employment, they are able to continue their post graduate study.
4. Promote and create positive attitudes towards Vocational Education and employment.
5. Adjust and add the curriculum to meet an economic structure.
6. Have a cooperation with Basic Education Commission, Non-formal Education Commission, Vocational Education Commission.

5.2.2 Quality

1. Create the positive image of Vocational Education.
2. Improve teaching, learning and assessment methods; that is, students will be assessed from real situations.
3. Develop occupational standard, professional qualification management, Vocational Education standard and provide a collaborating curriculum between institutions and enterprises.
4. Create a network and collaboration among enterprises, local community both local and international areas.
5. Promote the Knowledge Management system.
6. Conduct Quality Control assurance of finished products and services.
7. Expand Vocational Education and Dual-Vocational Training.

5.2.3 Provision of Services

1. Develop Vocational occupation according to the Royal project, “Sufficient Economy”, e.g. Fix It Center and Occupation Street. projects
2. Improve qualification of farmers.

3. Promote OTOP Project which will help villagers run their local business.
4. Provide services to help villagers check, repair, build and maintain machines, equipments and housing.

5.2.4 Production/Results

School leavers from vocational institutions will have:

1. technical knowledge and skills.
2..basic knowledge, communication skills, ICT, research and business plan.
3.good moral, ethic and personality.

5.2. 5 Entrepreneur promotion

1. Create and develop new entrepreneur network.
2. Create an opportunity leading to the investment capital and business knowledge.
3. Prepare each college to create its own business or it is called "One College One Company."

6. Conclusion

In order to improve the quality of school leavers the Commission of Vocational Education have been being reformed both curriculum, policy and target goals to meet the needs of the world market. Target of Manpower Production

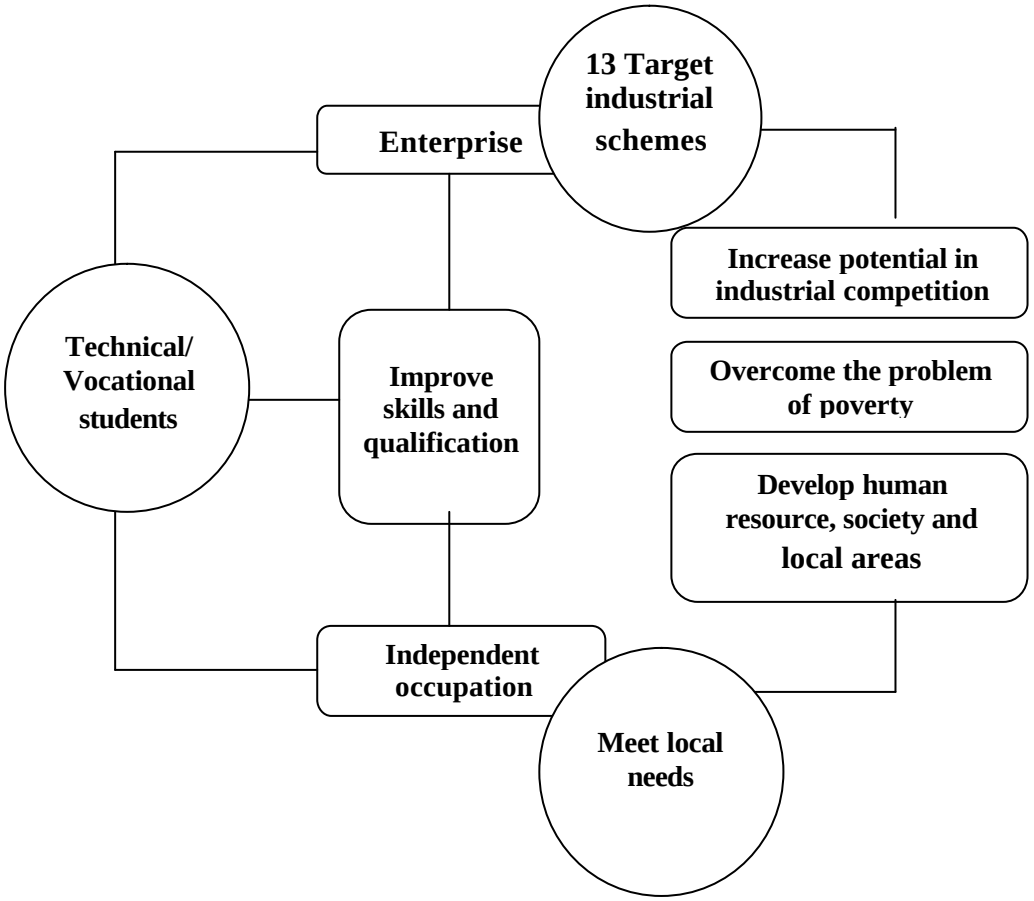


Fig. 7: Target of Manpower Production

Appendix 1: Profile of Udonthani Technical College

Mr. Charoen Chaisomkoon
Director

At Udonthani Technical College we develop people and improve their life opportunities. We are here to help students reach further and achieve more. We provide various qualifications at three levels of study: Certificate of Vocational Education, Diploma in Vocational Education and Higher Diploma in Technology and other special programs which are offered to students aged between 16 and 21 years. Entry to the college is open to students from Mathayom 3 (Grade 9 or equivalent), Mathayom 6 (Grade 12) and from Vocational Education Certificate graduates or equivalent.

We have developed robust technical training and have the knowledge to produce skilled and semi-skilled workers, technicians and technical teachers.

We have the ability and resources to provide students with the type and quality of learning experience that is required in technical areas and in industrial markets.

Our teaching staff are all professionals with experience in both teaching and industry. Our college has numerous special vocational facilities for students' projects as well as for training. We have excellent learning resource centres, including a computer centre and Self –Access Language Leaning Centre, available for private study.

These facilities, along with the experience of our staff, bring the world of work into learning to create a rich and relevant learning experience. We are educating for tomorrow's world - the world in which our students will live and work. Our students can progress from college to higher education, university and employment. You will meet them in almost every sector of industry and at all career levels.

I hope that this prospectus gives you a flavour of life at the College and what the College can do for you. No booklet will tell you all you need to know, so please take the opportunity to visit us and find out more. I am confident that you will be impressed.

The College

Udonthani Technical College is situated at 3 Markkhaeng District, Udonthani City, Udonthani Province, Thailand.

The college currently has 7 main buildings, 8 workshops, two resource centres: a Main Library and Self-Access Language Learning Centre and one IT facility room.

Study Programs

The College offers 6 main programs:

1. **Certificate of Vocational Education** (Skilled level: a three-year course program)
The courses offered are as follows:

?Auto Mechanics
? Machine Mechanics
?Welding
?Electricity and Electronics
?Building Construction
?Architecture Techniques

2. **Diploma in Vocational Education** (a two-year course program)
The courses offered are as follows:

?Auto Mechanics Technology
?Production Technology
?Metal Fabrication Technology

?Electronics Technology

?Electrical Power Technology

?Building Technology

?Architecture Techniques

?Industrial Technology

- Logistics

3. Higher Diploma in Technology (a two-year course program)

A quota of places for this degree is imposed for the students who are Diploma Graduates from Technical Colleges throughout Thailand. Three courses are open:

?Mechanical machines

?Electrical Power

?Electronics

4. Certificate in Dual Vocational Training (DVT- a three-year program)

The courses offered are:

?Auto Mechanics

?Electrical Power

?Electronics

?Building Construction

5. **Diploma in Dual Vocational Training** (DVT- a two-year program)

The entry students are from Grade 12. They are required to study theory courses at the college for 3 days and take practical courses at companies for 2-3 days a week. The courses offered are :

?Auto Mechanics Technology

?Electrical Power Technology

?Electronics Technology

?Building Construction Technology

6. External Study Programs

These courses are designed for mature students who may have graduated at any time in the past or who have substantial professional or other relevant experience and who wish to update or improve their qualifications. Learning resources, assistance and assessment are provided by the college but study is undertaken by the students at home in their own time.

Facilities

Whichever course you decide to take, you will find a wide range of impressive facilities to support you.

? *Workshops*

Throughout the College, there are various workshops for students to practice their skills.

? *Library Services*

We have the central library with thousands of books, magazines, periodicals and newspapers.

? *Self-Access Language Learning Centre*

The centre provides many ways to practice English Language Skills. This service is to promote English learning and self-study. It also provides an IT facility for searching information from the Internet.

? *Scholarships*

16-19 year old full-time students can apply to the college for education awards and government loan project.

Support for All

We welcome not only graduates from the main stream curriculum; that is, from secondary schools or Vocational Education Certificates, but also former students who wish to promote their knowledge and degrees.

? *College Shop*

The college Shop is open from 8.00 am – 6.00 pm, Monday to Friday. It sells a variety of different items – stationery, cards, stamps, snacks, soft drinks, mobile phone 'top up' cards and related course materials.

? *College Canteen*

The College Canteen is open early from 7.00 am – 7.00 pm to serve both teachers and students three main meals of the day at cheaper prices.

Special Projects

In 1988, the college was entrusted by Department of Vocational Education to carry out the Small

Entrepreneurship Development Training Project supported by the Government of Federal Republic of Germany. This scheme has encouraged graduates to set up their private (own) business.

In 1994, our college received aid from the government of Belgium for a project in Vocational and Technical Education in the Northeast of Thailand. The aims of this project are to promote the study of CNC, CAD/CAM and Welding. The outcome of the project has lead to high-quality students who meet the needs of the industrial market.

In 2000, our college was made responsible by the Department of Vocational Education to arrange curriculum assistance to Technical Colleges in the Lao People's Democratic Republic.

In 2005 Udonthani Technical College was selected to be one of the UNEVOC Centres, Thailand. The UNEVOC project is UNESCO's mission in the field of Technical and Vocational Education. The main objectives are Promotion of Linkage between Technical/Vocational Education among participants.

Contact

Udonthani Technical College

3 Wattananuwong Road

Markkhaeng District, Udonthani City

Udonthani, Thailand 41000

Tel: +66 42 221538

Fax: +66 42 246038

Email: potsompong@yahoo.com

unevoc@ udontech.ac.th

Internet: http://unevoc.udontech.ac.th

Vietnam

1. Introduction

Vietnam is a long country extending along the eastern coast of the Indochina Peninsula from 80 34” to 230 22” N. The country has an eastern coastline of 3450 km. It also shares 3818 kilometers of land border with China (North 1281 km), Laos (West 1555 km) and Cambodia (South 982 km). The area of Vietnam is about 331,700 square kilometers.

Vietnam’s population in 2003 is approximately 81 million, with average annual growth rate of less than 1.2 percent, the population was expected to be 85 million in 2006.

Vietnam is grouped among the least developed countries. At present, about 20 percent of the people live under the poverty line. However, its human development index (HDI) of 0.691 (ranked 112 in 174 countries) in 2002 is well above that of other countries in the group and compares well with those of middle-income countries.

In an effort to improve its deteriorating economy, Vietnam launched a social and economic reform program called "*Doi Moi*". The policy was adopted in 1986 and given stronger endorsement in 1991. Viet Nam had a gross domestic product (GDP) growth rate of 7.5 percent in three years 2002, 2003 and 2004 according to the General Department for Statistics (GDS). Viet Nam's growth level will continue to exceed the region's average in the coming years. Further, the country's economy will gain ground on several fronts this year with industry and construction being projected to grow annually by more than 10 percent (in 2004 this rate is 16.5 percent). Consumer spending will expand by 5 percent while the services sector will post a growth of 7-8 percent. The country's trade outlook looks bright due to a bilateral agreement with the United States and diversification toward manufactured exports. Exports gained to US$ 16.5, 19.8 and 25 billion in 2002, 2003 and 2004 respectively.

In terms of the labor market in Vietnam, the workforce for the whole country is over 43 million workers, which are male (51 percent) and female (49 percent). During the period of 2000 – 2004, the cohort of workforce has increased by about 1 million (approximately 2.5 percent per year). Vietnam has a workforce with relatively young people compared with some other countries. The group of young labors (15-34 ages) makes up a higher proportion in the workforce. However, there has been a trend of decrease in the rate of this group during last several years. For example, the proportion was 55.82, 53.03 and 46.8 percent in the years of 1996, 2000 and 2004 respectively. It is obvious that the workforce is distributed unequally amongst regions in the country. In the year 2004, the workforce in the rural areas is 32,701,000 account for 75.6 percent while in the urban areas this number is 10,554,300 account for 24.4 percent. Moreover, the workforce is concentrated mainly in the Delta of the Red River. Cuu Long accounts for 44.0 percent while that of Tay Nguyen is just 8.8 percent and 4 other regions account for 47.2 percent. The quality of workforce has improved significantly. For example, in the year 1996, the illiterate workers accounted for 26.7 percent in the total of the workforce, but in the year of 2005, this rate was reduced to 15.6 percent. The rate of high school graduates in the workforce was 13.5 percent in the year 1996 but in 2005, this rate was 29.05 percent.

The workforce training is improving each year, but there is considerable variation in the number of qualifications gained by the workforce in different regions. For example, in 1996 the rate of employees who participated in initial vocational training was 7.5 percent. This rate in

2005 was 15.12 percent. Workers who hold at least a post-secondary diploma and who gained a bachelor degree increased to 5.5 percent in 2005.

Table 1. Education and Qualification attainment of the workforce in ages from 18 to 60 (year 2005)

Education levels attainment of the workforce		Qualification levels of the workforce	
Illiteracy (%)	3.63	untrained	74.60
Incomplete primary school	11.95	Lower skills	15.12
Primary school	29.05	Intermediate skill	4.73
Lower secondary school	30.30	Higher education	5.5
High school	22.6		
Total	100.00	Total	100.00

(*Source from the Report of Labor and Employment in 2005, MOLISA*).

The common depiction of the workforce in Vietnam is a high rate of the untrained workers, low quality training and a poor working style. Further, the structure of trades offered in TVET schools is inappropriate while the structure of the workforce has an imbalance amongst the qualification levels vocational - secondary technical education and higher education. Consequently, Vietnam now lacks highly - skilled workers, technicians in many areas of production and services. In some areas, enterprises hire foreign workers. Growth of the industrial and service sectors has spurred the need for workers with well-developed vocational and technical knowledge, skills and attitudes. Especially, Vietnam have just admitted as an official WTO member, so it needs to face both known and unknown challenges once that happens. Unfortunately, the TVET system is not yet ready to prepare the quantity and quality of workers needed in a world of change.

2. National provision of education

2.1. Outline of the national education system

The educational system can be classified into three levels: primary, secondary and tertiary. Figure 1. Illustrates structure of National education system. It includes:

General education:
Duration of compulsory education:
Age of entry: 6
Age of exit: 15
Structure of school system:

Primary
Type of school providing this education: Primary School
Length of program in years: 5
Age level from: 6 to: 11
Certificate/diploma awarded: Certificate of Primary Education

Lower Secondary
Type of school providing this education: Lower Secondary School

Length of program in years: 4
Age level from: 11 to: 15
Certificate/diploma awarded: Certificate of Lower Secondary

Upper Secondary
Type of school providing this education: Upper Secondary School (high school)
Length of program in years: 3
Age level from: 15 to: 18
Certificate/diploma awarded: High School Certificate

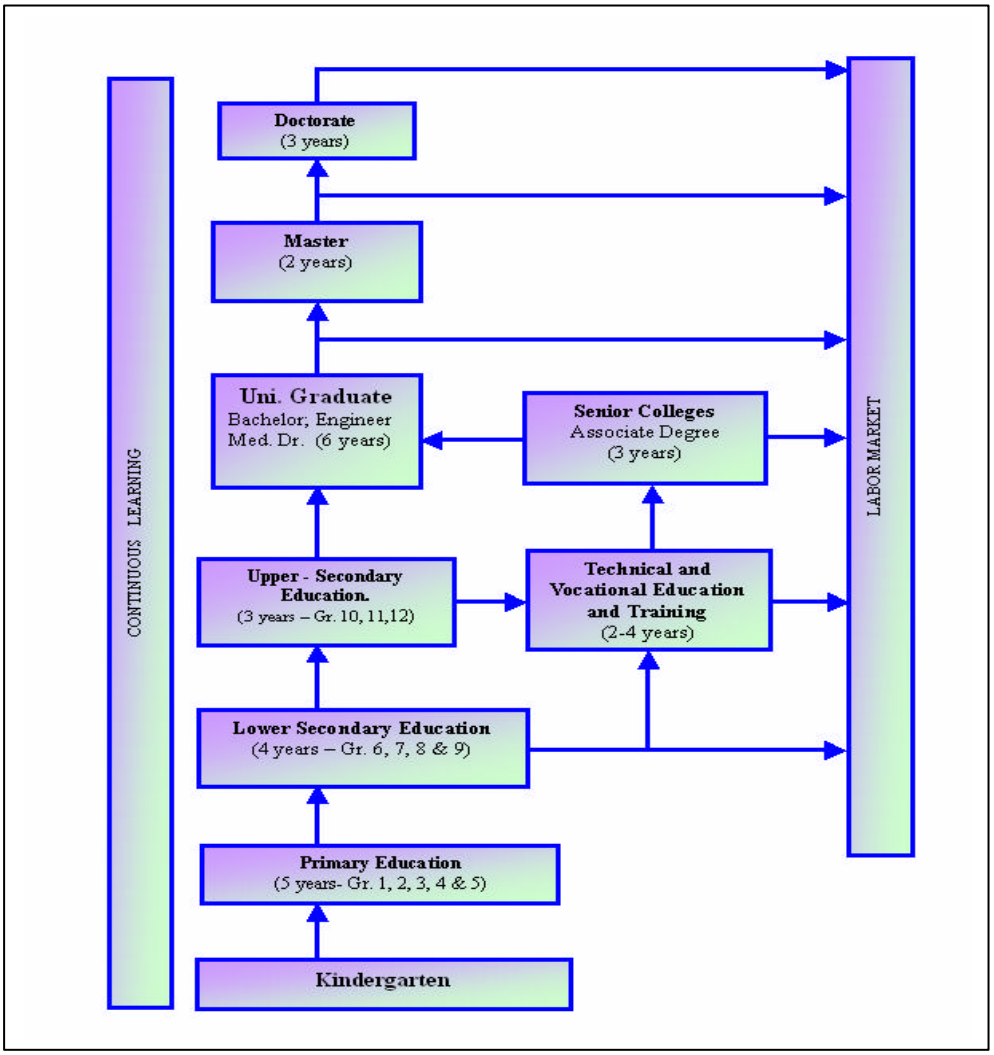


Figure 1. The education system structure

2.1. Issues on high school education

Secondary school education is divided into lower secondary school (four years) and upper secondary school (three years). After finishing high school, a graduate can select their pathway either going to university for bachelor degree, three-year college for an associate degree (advanced diploma) or going to TVET schools. If they want to study in university and college they must take an entrance examination which is organized nationwide.

For 2004 - 2005 school year, the number of students was over 2,802,000 enrolled at 2,224 high schools. According to the Education Law (2005) and the other strategic documents both lower and upper secondary schools are expected to:

- Help students consolidate and develop the outcomes of primary education and to acquire general and basic knowledge and an initial understanding about the techniques and vocational orientation to continue to upper secondary, professional secondary education or vocational training, or enter the work force;
- establish the relevance of education to individual and community needs as student's move from compulsory education to non-compulsory education, and to ensure that all citizens have the skills and knowledge necessary to operate effectively within society and contribute to, and benefit from, economic growth;
- Reduce the gap between different economic and social groups by providing high quality social and academic experiences allowing all to benefit from the increased wealth associated with the improved provision of secondary education;
- Assist with the development of a healthier society as it is a time when students develop an understanding of the issues associated with personal and community health;
- Develop and increase appreciation of environmental issues as it is time when students are able to develop a sophisticated understanding of the complex interrelationships between personal and industrial actions and the environment;
- Contribute to social capital by bringing together people from different backgrounds and developing shared values and customs.
- Allow students to understand the broader social, political and economic worlds in which they live;
- Complete general education and assist students to acquire common understandings about techniques and vocational orientation, as well as developing their personal abilities in order to choose a career development direction, to enter universities, colleges, professional secondary education schools, vocational training schools or the work force.
- Provide academic programs matched to international standards for selected students.
- Offer an opportunity for students to develop independent learning skills.
- Allow students to take responsibility for their own learning and develop an increasing sense on self-reliance.
- Introduce new subject disciplines standardized and linked to further study and work.
- Prepare students to operate effectively in a knowledge society by providing high level knowledge and skills.

In general, the quality of high school education is not met with purposes set. Although the average rate of students completing high schools each year is quite high at over 90 percent during many years, the public is still in doubt of real quality matching the standard due to cheating in high school graduate examinations rather popular. Quality of education is also a wide social concern, but is a particular concern in remote and mountainous regions. Some survey results have pointed out reasons including a lack of infrastructure, inaccessibility, language and cultural barriers, lack or limited quality of teachers, curricula that are not suitable to localities and the perception that returns from education are low. There is also a lack of supportive interactions between parents and teachers and schools.(sources: TA No.4603-VIE).

The average dropping out rate from school is still high and was 7.68% in 1999 and 7.19% in 2003 (source: MoET, 2004).

Expansion of enrollment at high schools during recent years has made the ratio of students to

each classroom so high. Survey results under TA No.4603-VIE show that while no discernible pattern emerges, most provinces have a pupil/ classroom ratio of between 30 and 60 students, with 16 provinces having over 60 students. Six provinces in the north of Viet Nam have more than 70 students per classroom; three provinces close to Ho Chi Minh City (CHIC) have more than 70 students per classroom; six provinces have less than 40 students per classroom – including CHIC and Ba Raving Tao.

The new curriculum in high school issued this year by MOET showed a little impact on process of school to work and the purposes of high school education as mentioned above are difficult to achieve.

MOET has determined that there should be two types of curriculum offered in high schools. Basic science curriculum (the standard curriculum), and the advanced curriculum that has two streams: natural sciences and social sciences. Students taking the basic science curriculum can also apply for enrolment in optional subject groups. (Literature – History – Geography; Mathematics – Physics – Chemistry; Mathematics – Chemistry – Biology or Mathematics – Literature – Foreign Language). Through these processes MOET is providing choice for students and better linking school experience with employment and training.

Experts in TA No.4603-VIE suggested that "For these initiatives to be successful there is also a need to better educate students and their families about post school options and to create learning pathways for students that improve the transition from school to work and further study". This will require continued effort in linking the current school curriculum with post school options and to provide advices to students and their families on those options.

TA No.4603-VIE indicates an example of a student is interested in electronics he/she may undertake a range of relevant subjects that will prepare them for a career in electronics at various levels including direct employment including elements of further training, or continuing to higher education. The creation of individual pathways shows students options other than university study as desirable outcomes following the completion of Grade 12 and provides them with various pathways matched to their interests and skills.

Technical and Vocational Education and Training (TVET)

Type of school providing this education: Secondary Technical and Professional schools and Vocational schools.

Length of Technical and Professional program from 2 to 4 years depending on entry qualification level. If graduates from lower secondary they take from 3 to 4 years (16 to 19 years old) and two years for graduates from high schools (18-20 year olds).

Length of Vocational program from 1 to 3 years depending on students who graduates high schools, upper or lower secondary schools.

Higher education

Higher education in Vietnam includes graduate and postgraduate include: Senior colleges, colleges and universities.

There is a weak linkage in school education, TVET and higher education in terms of curriculum, structure of the education system as well as policies applied to the whole system. It is difficult for graduates from a vocational school or secondary technical school to participate in higher

education due to having no a mechanism for recognition of prior learning or experience recently. Now, the Government is launching a big program of comprehensive reform of higher education.

2.2. Provision of TVET

Before 1987, the TVET system in Vietnam had developed with over 200 technical vocational colleges and 125 vocational schools being established. For many years, the TVET system has trained and supplied hundreds of thousands of workers and technicians for the economy, which was controlled and planned from the central Government. At that time, there was not the mismatch between supply and demand of the workforce. Consequently, since the country has moved into the market-oriented economy, the TVET system has exposed deficiencies of skilled worker training in a wide range of industries. The "products" of TVET could not meet the demands of industry. Skills and knowledge of graduates who were trained in TVET institutions have not been relevant to needs of the labor market. Besides that, most of young people have been reluctant to enter TVET, partly because of cultural reasons and partly because of the poor quality of training programs available.

Adding to those problems, the shortage of resources has made TVET system more difficult to operate. There had been a dramatic decrease in the number of TVET students during the period before 1990, while university enrollments have increased. This has led to imbalance in the structure of the workforce; a disparity between training of skilled workers and resultant redundancy of workers. This period was one of crisis for TVET. Thanks to the"Doi moi" policy, the economy has gained the relatively high growth of about 6.5 and 7 percent annually and TVET has taken its vitality and developed.

The TVET system includes over 500 colleges and schools where technicians and workers are trained to service such sectors as agriculture, industry, health care, tourism, construction and transportation. There are also about 40 of higher education institutions offering courses leading to a diploma and a certificate.

There was another big change to the sector of occupational education when the education law was approved in June of 2005. In the Education law (revised 2005), according to article 32, occupational education composes:

Secondary professional and technical education which takes from three to four years for graduates from lower-secondary schools, and from 1 to two years for those graduated from upper-secondary schools;

Vocational training offers courses from 1, 2 to 3 years leading to qualifications of pre-vocation, middle and higher vocation respectively.

Although the law was passed in June of 2005, it makes the system of TVET more troubles due to people could not clarify what qualifications are middle and higher vocation; how different between qualifications of secondary professional education and middle and higher vocation are. Besides, the law states three qualification levels of vocational training without considering skills demands from the labor market. This may create another difficulty for employers, business in recruitment and rewarding wages. There is no any clear definition of nature of three qualification levels. It will be quite hard to build up skills standards, conduct skills assessment, and recognition for any particular occupations in the nationwide.

Critical issues in education system structure is confuse of qualifications due to curriculum irrelevant to those qualifications, unconnected amongst TVET schools and colleges, double use of resources, and competition for sources etc... are added up with a new Act of vocational

training under the framework of the Education Law. Unfortunately, the Vocation Training Act is difficult to come into effect in reality. To some extent, it has created side-effects on the development of the workforce for the nation.

Table 2. A new qualification frame under the Vocational Training Act (2006).

Levels / Characters	Pre-vocational skills certificate	Middle skills diploma (MSD)	Higher skills diploma
Goals of Training	To prepare practical competence for simple jobs in an occupation.	To prepare practical competence for jobs in an occupation and ability to independent work and apply technique and technology for jobs.	To prepare practical competence for jobs in an occupation and ability to independently work and to work in team; to solve complex situations in reality; to be able to apply technique and technology for jobs
Duration of training	Less than one year	- From 1 to 2 years for HSGs - From 1 to 1.5 years for HSG and holders of Vocational Certificate in the same occupation trained. - 3 years for Junior HSGs - From 2 to 2.5 for Junior HSGs and holders Vocational Certificate in the same occupation trained.	- From 2 to 3 years for HSG; - From 1 to 2 years for MSD or secondary professional diploma in the same occupation trained.
Curriculum	Shall express goals of training for pre-vocational skills, knowledge & skill norms, peripheral, content, method and forma, student, assessment method for each module or subject; to make sure requirements for articulation to middle skills programs. Minister of MOLISA endorse framework	Shall express goals of training for middle skills, knowledge & skill norms, peripheral, content, method and forma, student, assessment method for each module or subject; to make sure requirements for articulation to higher skills programs. Minister of MOLISA endorse framework curriculum. Head of vocational training institutions develop curriculum for their own.	Shall express goals of training for higher skills, knowledge & skill norms, peripheral, content, method and forma, student assessment method for each module or subject; to meet requirements for articulation to higher education programs. Minister of MOLISA endorse framework curriculum. Head of vocational training institutions develop curriculum for their own.

	curriculum. Head of vocational training institutions develop curriculum for their own.		

3. The key national policies on TVET development

Over the last decade, the Vietnamese Government has persisted in the policy of renovation of the economy. The Government is deeply aware of the importance of human resources development (HRD) and makes big efforts to foster education and training. The reform of technical and vocational education and training (TVET) is one aspect of those efforts. Improvements made to the TVET sector can be seen in curriculum development, teacher retraining, strengthening partnerships between business and training institutions, establishing a qualification framework, accreditation, funding, management systems, and cooperation with international TVET institutions. Although the TVET system in Vietnam gained preliminary successes in a couple of years ago, there have been many difficulties which require effort of the Government, especially policies making.

In order to gain the goal of the development to increase in a rate of the trained workforce up to 30 per cent by the year 2010 and 40 per cent in 2015 (now over 75 per cent of the workforce are untrained), the following policies are concerned:

Diversification of TVET providers

Under the policies of diversification of TVET providers, and in order to make more opportunities to the young, unemployed and disadvantaged people, there are several kinds of TVET institutions.

Involving of employers and other stakeholders in TVET system

At present, linkages between TVET institutions and industry are quite poor. There are no mechanisms for the Government to make cooperation between schools and enterprises work;

Employers in private and public sectors can cooperate with TVET institution in a number of aspects such as: curriculum development, college councils and advisory boards, part-time teaching staff, advice on research topics, loans and use of equipment, visits to industrial enterprises, acceptance by industry of students for industrial training, undergraduate and postgraduate project work, industry-based projects, unsupported sponsored projects, supported sponsored projects etc...This can help improving STW smoothly.

Unification of Agency in Charge of State supervision on TVET system in order to make TVET more effective. It is very necessary to reform TVET successful.

In terms of development of TVET policies, both MOET and MOLISA take responsibility for the development. In some areas such as in-service teacher training, TVET teachers' qualifications, and articulation both ministries have to cooperate together when making policy, while other policies such as accreditation, curriculum development, occupational standards, financing, TVET development, certificate awarding and recognition are made separately.

Regulation on TVET credentials and qualification standards

According to the Education Law issued in 2005, graduates from secondary technical and vocational schools are awarded diplomas and can work as a technician, while those from

vocational schools are awarded a vocational certificate or diplomas dependent on the length of course being less than or more than one year. Graduates who hold vocational diploma and high school certificate can enter any secondary technical and vocational schools with recognition of the knowledge learnt at vocational schools, and normally they study at least one year for a diploma.

There is no National qualification framework in Vietnam as in some other countries. Standardization may be a new concept and approach to TVET system. People usually think that any written instructions, curricula etc., promulgated by national TVET authorities are standards, without involving industry. According to the Education Law, vocational schools can offer short and long term courses leading to a certificate and vocational diploma, while a technical and vocational schools can offer qualifications ranging from certificate, vocational diploma, and diploma. Vocational certificates and diplomas are issued by MOLISA and awarded by the principal of a vocational school, while diplomas for graduates of secondary technical and vocational schools are issued by MOET and awarded by the director of the institution.

Program development and accreditation in TVET system

To modify the educational and training system with the establishment of pathways of technological education which can be articulated from the qualifications of worker or technician to those of technologist, bachelor and to post-graduate level.

There has been a trend evident to balance the tasks and responsibilities among stakeholders such as the national TVET and local authorities, TVET institutions, and business world as whole. This suggests that some parts of curriculum development and management should be recentralized to keep curriculum standardized. This would fit in well with the integration of the regional and international training market. Other parts should be decentralized to make TVET programs more relevant and flexible to meet particular needs of the local industry, as well as make them suitable for quality assurance programs in each institution. Besides, occupational standards need to be developed by the central TVET authorities with the participation of other stakeholders, especially representatives from industry. The view of the Department of Technical and Vocational Education is that a set of criteria of quality accreditation for each sector (school education, TVET and higher education) should be developed. While Vietnam has scarce resources and an incomplete understanding of accreditation, then program accreditation should be given a priority to institutional accreditation, and this should be mandated and not voluntary at least in the first years of implementation of the policy.

Professional development in TVET system

There are about 20,000 TVET teachers who work in TVET settings in Vietnam. Most of them have graduated from higher education institutions (either university or three-year college). Vietnam has four universities (two new universities just established form two colleges) and one college for technical teacher education. However, there are over three hundred of trades to be offered in the TVET institutions, but there are three colleges and two universities to train TVET teachers in about 10 trades. Vietnam has no policy on teacher accreditation which requires a license to teach in any TVET institution.

One of the greatest weaknesses of TVET teachers in Vietnam is that they are lacking in experience in working with industrial enterprises. This places limits on the ability of TVET teachers to work with the industry to improve their professional knowledge and skills. They avoid learning from industry and other colleagues. Besides, the linkage between school and the

industry is not close and has no mechanism to make it work. Both MOET and MOLISA suggest TVET institutions seek to improve relations between schools and industry.

The Government also attaches importance to professional development for managerial persons in TVET. All directors and people in charge of TVET administration need to be upskilling in order to improve quality and efficiency of TVET sub sector. Last year, the Government launched a big program for professional development of teachers, managers and administrators in TVET.

Making pathways for school leavers

Recently, Vietnam had not have such a policy on school to work even this policy has introduced to a number of countries. It is quite a new concept in the public as well as in school community. The system of education and training of Vietnam is running without so much of cooperative efforts amongst sectors of primary and secondary, vocational-technical education, and higher education. This system does not help all the young and shift school-based learning experiences to work-based learning and then to the workplace.

Technical and vocational education in high school

Subjects related to TVET have been offered in many years but it seems to be less effective. Last year, MOET launched a pilot project for four Technical Upper Secondary (TUS) schools that provide the traditional high school program with about 25% contents of some specialist vocational subjects is an indication of recent development that look to increase high school links with industry and service sector needs. However, such a program is difficult to prepare students for the world of work because it focuses more on theoretical subjects and less on vocational ones. Besides, courses offered related to vocation-oriented education is arranged unconnectedly each other. For example, in grade 10, students have to learn a mixed subject on agricultural and entrepreneurship education. In grade 11 students have to take course on industrial education including such subjects as technical drawing, Mechanical technology, and Internal combustion engine with total period of 52 class-hours. Students of grade 12 continue to learn subjects such as electronic and electrical techniques.

Along with regular program, high school students can learn optionally vocational subjects such as Horticulture, Fishery, Electrical engineering, Electronic engineering, Motorcycle repaired, Garment, Cooking, Tailoring, IT. Each vocation takes 105 class-hours). All these programs can not articulate to programs of post-secondary institutions.

Under the regulation of MOET on curriculum, high schools have to introduce vocational-oriented activities to students. The objectives of these activities are to formulate motivation, interests and occupational abilities of students for vocations that society needs. Joining into this program, students can visit some industrial sites and training institutions or interview workers. This activity is also to make an impression on students of a particular vocation.

It is quite difficult to set up effectively vocational and vocational-oriented programs at the high school level because of a number of reasons as below:

- Teaching technical and vocational subjects costs much higher than doing academic subjects in high school. School education in Vietnam faces conflict of dual objectives: quality and equity;
- Management experiences of the principals in high schools which offers technical or vocation courses is irrelevant to requirements;
- Almost of students studying in high schools want to further their study in higher education institutions after finishing high school. They do not want to take courses

oriented to a career or profession later. They receive little career advice while undertaking studies not associated with their career aspirations.

- Factors from the labor market which is not so demand also influence attitude and awareness of students of planning their pathways.

Career counseling

In the old economy (centrally planned economy), the student was quite passive and undergone low risk because that all of the things (where to learn, in which field of study, and where to work) done by the government. In the new economy, the student should learn not only to find jobs for her /him but also to create jobs for the other. She/ he need to made big efforts to be able to change careers during their life in the labor market. The concept of "job for life" in a changeable world is not applicable.

Recently, there have existed many centers for job counseling. Almost these centers are located in big cities and they provide just information of jobs and work as matchmakers between jobseekers and employers. School leavers are not interested very much in these centers.

In the school system of Vietnam, there are about 200 councilors. It is a cohort of people who are not trained professionally. Most of them graduated from teacher education colleges. This show Vietnam should soon train professionals to work in this area.

MOET is being aware of the importance of career counseling and guidance for students of both lower and upper secondary schools. It is one of the ways to help students understand the options that are available to them, developing a personal plan for future study and work, and for students to see the connections between school, further study and work. It also helps students plan their pathway through education, training and beyond.

The development in schools of pathways for students, where students are informed about post school options and able to match their interests with career opportunities and plan a pathway that will better enable them to achieve their personal and professional goals should be explored.

In the coming years, Vietnam shall reform policy on job guidance and counseling for the young. This policy should integrate with other policies and focus mainly on the follows:

- Establishing a network of job guidance and counseling in the nationwide. It assists not only students who study in school, TVET, higher education institutions but also it helps for many other laborers including workers in companies and disadvanted groups.
- Development of a cohort of professionals of job guidance and counseling.
- Teaching staff needs to be trained in courses on job guidance and counseling so that she/he is able to give advices to their students.
- Preparing the occupational list and classification of education programs in TVET and higher education sub sectors. These documents may give helpful information to students and the adult in order to make pathways for themselves.
- Building up the labor market information system and using ACT for this work.

- Improving the legal framework so that the policy can be implemented successfully.

3. Remarks

Vietnam is now a new member of WTO getting along with opportunities there exist many uncertainty risks for the young if they are not prepared for the world of work as soon as possible after finishing lower secondary school and high school. Reference to STW process, the following points may be considered for policymakers of education in Vietnam:

1. Improvement of the network of agencies for job guidance and counseling with allocating more funds for human resources development in this area, training experts (councilors), providing facilities and preparing necessary guideline documents.

2. Need to review high school curriculum for vocational subjects of aspects such as: objectives, contents, teaching and learning method, facilities and feasibility of courses.

3. Building up a mechanism to allow students to transfer to courses in post-secondary institutions without doubling of their learning in those institutions.

4. The Government should create a cooperation mechanism between schools and the industry by issuing regulations. At the same time, it needs to encourage schools to go to enterprises to make such cooperation workable. Mobilizing resources from private sector is considered as a strategic solution to add budgets to schools.

5. Creating jobs available in the market is a very important condition for STW transition. Since now up to 2010, the Government has planned to create 8 million new jobs. This may be a good opportunity for the Vietnamese young.

6. STW policy will not success if it is not getting along with other policies of education reform: renovation of curriculum, teaching and learning method, finance of school, school infrastructure, staffing and introduction of the new model for school management.

7. STW is quite new concept in Vietnam it is necessary to disseminate foreign good experiences from the international community and MOET needs to conduct more research relevant to process of STW transition.

Acronyms:

GDP	Gross Domestic Product
GDS	General Department for Statistics
GDVT	General Department of Vocational Training
HDI	Human Development Index

HRD	Human Resources Development
MOET	Ministry of Education and Training
MOLISA	Ministry of Labor, Invalid Social Affairs
NEC	National Education Council
STVS	Secondary Technical & Vocational School
STW	School to Work
TVET	Technical and Vocational Education and Training

References:

1. Capacity – Building for TVET in Vietnam. Technical Assistance Project TA-3063. June 1999. MOLISA.
2. Hoang Ngoc Vinh. 2002. Curriculum development in higher education. *Journal of Education*, MOET, Hanoi
3. Hoang Ngoc Vinh. 2003. Improving Access, Equity and Relevance of TVET Vietnam. A case study with the assistance of UNESCO Asia & Pacific Bureau for Education.
4. Hoang Ngoc Vinh. 2003. Some issues around of recognition of qualification in the region. SEAMEO VOCTECH Brunei.
5. Implementing UNESCO / ILO Recommendations for TVET. National Institute for Educational Policy Research (NIER). 2002. Japan.
6. J. Hallak. 2002. *Higher Education in Vietnam – Transition and Challenges for Development*. In Vietnamese. The French Embassy in Hanoi.
7. Pham Minh Hac. 2003. Enhancing Innovation of Vocational Education and Human Resources Development. *Journal of Education*. MOET. Hanoi.
8. Phan Chinh Thuc. 2003. The Policy on Vocational Training to Develop Human Resources. *Journal of Education*. MOET, Hanoi.
9. Strengthening National Vocational Training Policy in the Caribbean. An ILO/OECS Technical Workshop for Policy Makers Responsible for TVET Issues. Report. 2002.
10. TA No.4603-VIE, MOET, Vietnam
11. *Technical and Vocational Education and Training for the Twenty-first Century.* 2002. UNESCO and ILO Recommendations.
12. *The Education Law of the Socialist Republic of Vietnam*. Hanoi, 1998, 2005.
13. *The Strategy for Educational Development 2001-2010.* Education Publisher, MOET. Hanoi 2002.
14. *Year Book of the General Department for Statistic*. Hanoi 2005.