

Acknowledgements

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SEAMEO VOCTECH is a regional for vocational and technical education and training under the Southeast Asian Ministers of Education Organisation (SEAMEO) with the mandate to assist the eleven (11) member countries in Southeast Asia in strengthening the TVET systems by enhancing their capabilities through networks and partnerships in the areas of training, research and development, and information services. Further information can be found at www.voctech.org

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Table of Contents

Acknowledgements

Chapter 1. Introduction

The Structure of the Report

Project Overview

Objectives

Meeting Proper

Chapter 2. TVET Teacher Education in the 10 Participating Countries

Brunei Darussalam

Cambodia

Indonesia

Lao

Malaysia

Myanmar

Nepal

Singapore

Thailand

Vietnam

Chapter 3. Comparative Analysis

Chapter 4. Future Research Agenda

Appendices:

1. Summary of comparative analysis of TVET Teacher Education
2. List of experts
3. Press release

Chapter 1

Introduction

The Structure of the Report

This synthesis report brings together the summary of presentations of the experts meeting on TVET Teacher Education in Southeast Asia and Nepal. Ten representatives from 10 countries of Brunei Darussalam, Cambodia, Indonesia, Lao, Malaysia, Myanmar, Singapore, Thailand, Vietnam, and Nepal presented their country papers delivered during the International Conference on “The Excellence in Teacher Education and Research Innovation”.

The papers addressed the current status of TVET teacher education in their countries and shared research agenda of the TVET teacher education. The compilation of country reports on TVET teacher education in Southeast Asia can be found in a supplementary document. The summary of discussion on identifying future research agenda on TVET teacher education can be found in Chapter 4.

The report consists of 4 main chapters: Introduction, Summary of Presentations, Synthesis of Comparative Analysis, and List of Future Research Agenda.

Project Overview

Most countries in Southeast Asia are positioning Technical and Vocational Education and Training (TVET) in the mainstream of education system and putting it as a priority in their education agenda considering that this type of education plays important roles in socio-economic development of the nation. TVET teachers have been crucial issues in the region, both due to lacking of the quantity and quality. The increasing number vocational schools demand for more teachers. Indonesia and Thailand are very progressive in promoting TVET at secondary level. This has received a positive response from the clientele that the number of TVET schools and students are increasing in both countries. Consequently, the demand for TVET teachers is higher. In terms of quality, most of new TVET teachers in the region are fresh graduates from vocational and technical colleges and universities, thus lacking industrial and teaching experiences (SEAVERN 2007). The industrial working culture has not been in teachers’ mindset due to lacking experience working in industries, thus cannot transfer it to their students. These are some issues identified that need updating and further studies.

Considering the crucial roles of teachers and many issues related to TVET teachers in the region, it was worth the effort to share the current status and the same time identifying research agenda of TVET teacher education in the region. This experts meeting was organised for that purpose by inviting experts from the region to prepare a country report on this topic and discuss research agenda in a meeting.

Objectives

This experts meeting had three-pronged objectives:

1. To map out the current development of TVET teacher education in Southeast Asian Countries,
2. To plan research agenda on TVET teacher education in the region, and
3. To offer a research capacity building opportunity for the expert group by participating in International Conference on “The Excellence in Teacher Education and Research Innovation”.

Meeting Proper

This experts meeting on *TVET Teacher Education in Southeast Asia: Current Status and Future Research Agenda* was one of the agenda scheduled at the International Conference on “The Excellence in Teacher Education and Research Innovation” aimed to be an avenue to exchange experience among academics, administrators, teachers, lecturers, students, concerning the development and progress of teacher education and research. Many relevant topics on teacher education and research initiatives were discussed during the conference.

Ten experts from the Southeast Asian countries and Nepal participated in the said experts meeting. They presented country reports on the current status and future research agenda in TVET teacher education in their respective countries. Their participation in this conference was initiated by the SEAMEO-VOCTECH, in collaboration with the UNESCO-UNEVOC and Rajabhat Universities Network, Thailand.

During the experts meeting, the experts also had the opportunity to participate in the International Conference organized by Rajabhat Universities Network. As depicted in Table 1, the day that was fully dedicated for the Experts Meeting on TVET Teacher Education was on the 2nd day, 26 December 2012.



Group photo session with the Experts

During the first day of the conference, the experts participated in the plenary sessions, learning from keynote speakers on Teacher Education and Mixed Research Methods. In addition, together with SEAMEO VOCTECH representatives, the experts had a briefing on the overview of the experts meeting, shared expectations from the meeting, and discussed day-to-day agenda during the meeting. Considering that not all of them knew each other, this briefing was also used as an introduction among members especially between the SEAVERN (the Southeast Asian Vocational Education Research Network) and UNEVOC Network representatives.

On the third day of the conference, the experts were actively participated in the parallel sessions of the conference addressing various topics under the theme of Excellence in Teacher Education and Research Innovation. The detailed agenda of the experts meeting as part of the international conference can be seen in Table 1.

Table 1. *The Agenda of the Experts Meeting as Part of the International Conference*

Date/Time	Agenda	Venue
Day 1, 25 December 2012 Morning 09:00 – 12:30 Afternoon 14:00 – 16:30 18:30 – 22:00	Participation in the International Conference - Opening - Keynote Speeches Briefing on the Experts Meeting - Introduction - Overview of the Experts Meeting - Expectation - Meeting agenda Dinner and reception	Ballroom 1, 2, 3 Syndicate Room 1 Ballroom 1, 2, and 3
Day 2, 26 December 2012 Morning 08:30 – 12:30 Afternoon 14:00 – 17:00 19:00 – 21:30	Experts Meeting Paper Presentations - Brunei Darussalam - Cambodia - Indonesia - Lao PDR - Malaysia Coffee Break - Myanmar - Singapore - Thailand - Vietnam - Nepal Discussions on TVET teacher research agenda Hospitality Gathering and Networking	Ballroom 2 and 3 Ballroom 1 Riverside 2
Day 3, 27 December 2012 Morning 08:30 – 12:30 Afternoon 13:30 - 15:30 16:00 – 18:00	Participation in the International Conference Parallel Sessions Parallel Sessions Closing ceremony	
Day 4, 28 December 2012	Departure of participants	

Chapter 2

Summary of TVET Teacher Education in Ten Participating Countries

On the second day of the conference, 26 December 2012, each TVET teacher expert presented his/her paper in the morning followed by comments from the Chairperson, Dr. Tanom Intarakumnerd and the moderator, Mr. Alias Abu Bakar. The summary of the presentations is presented as follows.

TVET Teacher Education in Brunei Darussalam: Transformation and Challenges

Presented by: Dr. Wei Keh Chin

The paper presenter, Dr. Chin, discussed the important role that the technical and vocational education and training (TVET) of Brunei Darussalam plays in the social and economic development of the country. He mentioned that the TVET system has also proven to be a rewarding pathway for students in terms of employment and further education. He emphasized that the effectiveness of any TVET system is strongly dependent on the quality of teachers – that qualified, trained and motivated teachers and trainers are essential for effective learning which are at the heart of TVET quality.



Recognizing this, he shared that the Brunei government has taken initiative in recent years to improve the quality of the teaching staff by upgrading the only teacher education institution in the country into a graduate school. This means that all the teachers will be trained at only graduate level such as Master of teaching (MTeach), Master of Education, Doctor of Philosophy and Graduate Diploma in Education. He noted that TVET teachers are not exempted from this policy changes. His paper focused on the changes on TVET teacher education in Brunei Darussalam following this recent policy transformation and share some of the challenges ahead.

Cambodia: TVET Teacher Education in Cambodia

Presented by: Chhar Khemarin,

Teacher education in Cambodia has two difference types Academic and TVET teacher education. Academic teachers education are conducted by National Institute of Education (NIE) which is under the Ministry of Education and Sports (MoEYS), and TVET teacher education is

conducted by Ministry of Labour and Vocational Training (MoLVT) and National Technical Training Institute (NTTI) is the only institution under the umbrella of MoLVT which has the main duty to train TVET Teachers for the whole country.



The TVET teacher training at NTTI is a one year programme consisting of 37 credits, offering Junior and Senior levels programmes, focusing mainly on skills upgrading in terms of andragogy, methodology and soft skills. He shared to those present that, currently, the Royal Government of Cambodia has set a policy for NTTI to recruit and train 300 TVET teachers every year, where so far, more than 2,000 TVET teachers have been trained and sent to work nationwide.

He lamented that although NTTI takes charge of the TVET teacher education in the country, there is still a need to improve the undervalued image of a vocational education as people view TVET as a second-choice for people. This being the case, the system is having difficulty to attract female applicants. Further, for the system to meet the demands of the industries, he highlighted the importance of the need for NTTI to align the curriculum and link with industry to meet the demand for skilled workers and technicians. Strengthening and upgrading of technical teachers based on new technology and current and future needs of labour market will ensure that the TVET teacher education is able to contribute to the socio-economic development of the country.

Indonesia: Teacher Certification Program: An Effort in Realizing a Qualified Vocational Education

Presented by: Dr. Ivan Hanafi

TVET teachers for secondary vocational and technical schools are prepared by the universities that offer vocational and technical teacher education formerly known as Institute of Teacher Training and Education (IKIP). In addition Vocational Education Development Centre, now called P4TK (Pusat Pengembangan dan Pemberdayaan Pendidik dan Tenaga Kependidikan/ Center for Development and Empowerment of Teachers and Education Personnel) is also in charge of providing in-service training for TVET teachers.

One of the important issues under TVET teacher education is teacher certification. Teacher certification is the program conducted based on the law of the Republic of Indonesia Number 14 Year 2005 on Teachers and Lecturers. The program is intended to ensure that the teachers have mastered the required competencies that lead to the improvement of the quality of education in Indonesia. The program conducted to the in-service teachers is expected to

result in better quality of education because the students, including vocational high school (SMK) students, are taught by certified and professional teachers.



The teacher certification process is conducted through (1) the direct provision of the certificate, (2) portfolio assessment, (3) education and training of the teacher profession (PLPG), and (4) teacher professional education (PPG). The teachers are free to select the patterns they like considering their capability and capacity. Starting from the year of 2011, the implementation of the in-service teacher certification is recommended to be education and training (PLPG) without neglecting the willingness for the teachers to take direction provision and portfolio assessment with certain requirements. In addition to that, collaborative teacher professional education (PPG) program is being initiated for pre-service teachers of vocational high schools.

Lao: TVET Teacher Education in Lao PDR

Presented by: Soulikhamkone Sisoulath

The country paper presented by Mr Sisoulath describes the current TVET teachers in public TVET schools who are considered as permanent employees of the central government of Lao. Meanwhile, the VEDC and the National University of Lao PDR (NUOL) have been playing a critical role in pre-service TVET teacher training. The Faculty of Engineering of the NUOL was training the theory TVET teachers at Bachelor level (20 per year), whereas, VEDC was training the practical TVET teachers and trainers at Higher Diploma and Bachelor (*continuous*) level (50-60 per year). This capacity was assessed as not in accordance with the ambitious target of TVET expansion set by the government. This resulted to the MOES expanding in 2008 the TVET teachers training capacity to some selected TVET institutions, 9 in total but only 7 in operation. As planned, a total of 600 new teachers will be trained each year during the next five years and the MOES, with ready and allocated appropriate resources based on a yearly plan and curricula submitted by schools that are approved by them.

He further shared that as for the in-service training, separate training or study programmes have been conducted by TVET directors, officers and teachers in a range of TVET areas, with duration ranging from one day to one year, either in Lao PDR or abroad. Currently, the VEDC and some major TVET schools conduct in-service training for TVET teachers, covering the areas of pedagogy and technical fields. In this programme, around 150 teachers are trained annually, with more than 1,500 teachers from the MOES who have yet to undergo pre-service training. A number of major issues of TVET teachers need be addressed by the system, including lack of coordination among providers, low qualification of teachers, lack relevant pedagogical preparation, limited movement and low salary.



Malaysia: Technical and Vocational Education (TVET) Teachers in Malaysia

Presented by: Dr. Razali Hassan, Wahid Razzaly & Maizam Alias

In the conference, Dr Razali presented the structure and function of the training needs for Technical and Vocational Education and Training (TVET) teachers in Malaysia. He highlighted that the TVET programmes in Malaysia prepare youths for employment in various industrial trades, which are mostly run by government agencies.



There are several private initiatives that complement the government's efforts in producing the skilled workers needed by industry. The main government agencies involved in TVET teachers training are Ministry of Education (MoE), Ministry of Higher Education (MoHE), Ministry of Human Resources (MoHR), Ministry of Youth and Sports (MYS) and Majlis Amanah Rakyat (MARA). The aspects of qualification and quality of the TVE training have become issues in teachers training in the country. It is expected that by the year 2020 all teachers must possess a first degree before they can join the teaching profession to ensure all teachers passing their 'quality criteria' before leaving the training institute.

He explained that there is a need for Malaysia to have the new National TVET-Teacher Qualification Standards and training in conjunction with the transformation of vocational

education system. He also highlighted the need to strengthen the skills accreditation programmes in order for the new models of TVET teachers to fulfill high standards of teacher's quality and market needs.

Myanmar: TVET Teacher Education in Myanmar

Presented by: Win Maw Tun

In his country report presentation, he informed those present that the Republic of the Union of Myanmar is making all efforts to enable the nation to keep abreast with the global nation. The current development of the Technical and Vocational Training System in Myanmar reflects the development of Myanmar Society and Economic Growth, and that TVET has a major role in the implementation of human resource development programs for science and technology. At present, there are thirty-two Technological Universities, three Government Technological Colleges, eleven Government Technical Institutes and thirty-six Government Technical High School in Myanmar, to cater for the students to study and continue to the higher education in many skilled-based programs, which are highly relevant for national development.

He highlighted that the key to excellence in TVET is by having qualified teachers. The country has two TVET teacher training centres which have been established to train and produce competent technical teachers to become knowledgeable and skilful in their respective technical and engineering fields.

His paper, in particular, discussed how TVET teacher training programs are conducted in Myanmar. On one hand, teachers for Technological Universities are trained for under graduate and post graduate degree in engineering from first year to final year, while on the other, practical skill based short-term training courses are conducted every year for teachers in the Government Technological University, Government Technical Institute and Government Technical High School. The main theme of TVET teacher training programs is to upgrade the quality for teaching and technical skills for TVET education.



In his presentation, he also shared some of the experiences that the TVET teacher education system is currently going through, including having insufficient budget, which directly affects the need to replace out-of-date teaching aids and equipment (most of the workshop equipment and facilities in use have been there for two decades), lack of qualified educationist for updated pedagogy, the need to recruit more pre-service training teachers, the need to resolve the unbalanced teacher-student ratio per class.

He concluded his presentation by highlighting the willingness of his department, the Department of Technical and Vocational Education, to receive any assistance, suggestions, technical assistance, any training of trainers, to provide any technical education for teachers in the country on the current TVET teacher education process.

Nepal: TVET Teacher Education and Training in Nepal

Presented by: Ram Babu Adhikary

The country paper presenter started by sharing that the system of training for secondary teachers and the training system for the school teachers in Nepal started in 1957. It was also during this time that the government of USA supported the establishment of the College of Education with functional and technical assistance. Under Tribhuvan University, this college offered a two-year education program for the 10-year high school graduates to train lower secondary teachers; while at the same time offering a one-year B.Ed. course for those who hold Bachelor's degree in other subjects other than education. Likewise, the Ministry of Education started in-service teachers training program after few years under Science Education Project.

After the establishment of the Council for Technical Education and Vocational Training (CTEVT) in 1989, the government realized a separate technical teachers training program working in different CTEVT schools. In 1991, Training Institute for Technical Instruction (TITI) was established as a TVET teacher training institute.



In his presentation, he shared the current status of his country's TVET teacher education and training program, which is not satisfactory until now. Among those he shared are the following: that there is no mandatory for pre-service training or in-service training in TVET instructors, that anybody who passed technical school education could become a TVET teacher; that the condition for recruitment of professional teachers in vocational schools is usually Diploma level, bachelor degree or master degree in some special fields, that there is a need for competencies standard of TVET teaching and training staff in Nepal, and that TVET teachers licensing system is not implemented.

He also added that CTEVT should have a long term Human Resource Development (HRD) policy, and that there should be regional and international development cooperation in the field of TVET teacher education and training in Nepal.

Singapore: TVET Teacher Education in Singapore Institute of Technical Education

Presented by: Samuel Ng

The Singapore Institute of Technical Education, as a principal provider of career and technical institution at the technician and associate professional level and key developer of national occupational skills certification and standards in the country adopts the practice-based, hands-on experiential learning, which is different from that of mainstream schools and other tertiary institutions in Singapore, to suit its students who learn well by doing. ITE uses the “teachers have to know and be able to do” philosophy in training the teachers for the institutes needs.

To cater to this unique pedagogic need of its teaching staff, ITE has since 1981 provided its own TVET teacher education which emphasizes competence-based, practice-oriented teaching complemented by on-the-job mentoring and supervision by experienced teachers, an approach adapted from Germany.



He highlighted in his paper presentation ITE’s desired goal of developing quality TVET teachers and shares the approach and strategies it uses, particularly in its initial teacher training programme, to professionally prepare and advance teachers towards that goal.

He also shared key issues and challenges relating to its implementation and outcomes, including the use CBC model of learning – applicable in authentic learning environment, the introduction of 3-level vocational pedagogy framework (TPCK) capability systematically and progressively develop its TVET teachers towards teaching excellence via professional pedagogic development and communities of practice. At the end of his presentation, he recommended that teachers themselves must first be prepared and developed to be future ready with the right competencies so that they can prepare students to acquire 21st Century competencies and be future ready.

Vocational Teacher Education in Thailand: Current Status and Future Initiatives

Presented by: Dr. Rochana Jantrakool Sriboonma

Dr. Rochana discussed the current vocational and technical education and training (TVET) system in Thailand. She highlighted that the labor mobility and employment for strengthening skill competencies in this region have greatly influenced the way of TVET system in Thailand. According to her, the Office of the Vocational Education Commission (OVEC) sets the TVET policies which are divided into 4 major dimensions as in: Dimension 1: giving an opportunity of vocational education to all; Dimension 2: developing the quality of the vocational students;

Dimension 3: establishing the effectiveness of TVET management; and Dimension 4: cooperating the TVET management. It is also OVEC that is responsible for the vocational and professional lifelong learning in the country. The provision of technical and vocational education and training is offered through the formal school system, in both the basic and vocational education streams, as well as through non-formal education opportunity. The formal vocational and technical education is conducted at three levels: upper secondary (leading to the Lower Certificate of Vocational Education), post secondary (leading to a Diploma or Vocational Associate Degree) and university level (leading to a Degree) – at Vocational Institutions.

Currently, there are 415 colleges working under the OVEC. The major programs offered at the vocational stream includes industry, arts & crafts, home economics, business & commerce, tourism, agriculture, fishery, textile industry, and technology information & communication. Total number of vocational students in formal school system seemed to have decreased from 693,038 in 2010 to 684,055 in 2011. The total number of vocational students in non-formal stream accounted for 900,501 was higher than in formal stream, totaling to 684,055 in 2011. The majority of vocational students enrolled in industry and business & commerce programs.



On the aspect of TVET quality developments, she emphasized that this must be carried out by the vocational teachers. Also included in her presentation are the good practices of OVEC programmes launched for improving the vocational teachers' potential, such as: conducting the native foreign experts; improving learning management using project or problem based learning (PsBL); increasing the potential of occupational skills; working on research for developing instructional media "The Innovative Logistics Professional's Training for Border Trade with the Greater MEKONG Sub-region"; and strengthening the TVET networking with other organizations in both public and private sectors; and d) expanding the overseas partnership.

She highlighted in her paper the need for the system to push forward the development of vocational education to meet the market demand and the upcoming free labor transfer within the ASEAN region in the future. She also added that the National Vocational Education Plan has pointed out the following: for the vocational education policies to set up a goal to improve the quality of the vocational graduate students based on demand and supply of the labour market and to considering a professional regulatory body under the MRAs to enlarge for the vocational teachers transfer or exchange programs in the SEA region.

The Technical and Vocational Teacher Development in Vietnam: Issues and Solutions

Presented by: Nguyen Hong Hai

In his presentation, Mr. Hai shared to those present the five main levels of education in Vietnam, namely: infant education, primary education, secondary education, *technical and vocational education* (TVE) and higher education in the education system.

There are 540 TVE institutions, of which 282 are intermediate TVE colleges, 258 are higher TVE colleges that provide TVE training programs. In Vietnam, each district has an average of one TVE institution, and that in the TVE field, the private institutions account for 27 % and are increasing as the government encourages and calls for potential investors.

There are about a total of 1 million teachers in the five levels of education in the country, out of which 18,000 are VTE teachers with 700,000 students. It was mentioned that 60% of the labour have not yet been trained where TVE's role is considered very crucial in providing them the skills required for employment.

He also presented in this paper the current challenges and issues that the Vietnamese vocational education teachers are facing which include the following: that education should be made a national and leading policy; that the quality of TVE teacher education is low compared to those in the region and that the TVE teachers' salary is considered average locally but rather low compared to those in the region; there is no professional development plan for those taking up the pre- and in-service training schemes; the teaching equipment or aids are insufficient and out of date; there are too many industries to cater for while there are no specific training programmes for TVE teachers.



To overcome these challenges mentioned, he recommended for the following to be considered in the future: the development of indicators and evidences for TVE standards, as well assessment tools that would help VTE teachers to do self-assessment against professional standards and the development of quality assurance framework; and to conduct research training needs and development of training materials.

Chapter 3

Synthesis of Comparative Analysis

Table 2 on attached appendix 1 shows the different aspects in TVET that exist across those countries that took part in the recently held conference. In addition, the table compares TVET teacher education in each of these countries.

Summary

From the various papers presented here, it clearly shows that TVET plays a very important role in the socio-economic development of each of these countries, particularly in the training provision in producing skilled workforce, who will to take up employment in the different industries, upon completion of TVET programmes.

Having highlighted that most of the TVET teachers are graduates from different levels but still lacking in industrial practice and exposure, a united call was made for the TVET teachers to undergo industrial training or exposure or they be given particular industry training prior to them taking up VTE teaching posts as the combination of hands-on practice and good pedagogical knowledge, technical know-how and content would ensure that the kind of training they would deliver and provide to the students are authentic, relevant and current to the needs of the industries in their respective countries.

As TVET programmes are industry-based and industry-competencies-orientated, it is necessary therefore, for TVET teachers to have the right set of competencies and right work environment when delivering technical and vocationally- oriented programmes in order that the students are provided with the right set of skills and knowledge required by the industries. Likewise, it is crucial that these sets of vocational and technical skills and knowledge that the TVE teachers are being given to be relevant not just to the needs of a particular country, but if possible, applicable across the region. The setting up of a regional standard TVET qualifications framework will help address the issue of TVET teachers' mobility across the region and perhaps, beyond.

Further, the importance of cooperation between training institutions and industry cannot be over-emphasized, therefore, dialogues between them on activities such as curriculum development, revision and programme delivery, should be held regularly to ensure programme relevance and currency to the industry needs.

Recommendations

The participating countries have recommended that the following actions should be taken in order to improve the technical and vocational education and training programmes for teachers in the Southeast Asian region:

To ensure that TVET teacher education programmes are relevant to the needs of the industries, there is a need to provide the TVET teachers with industrial experience according to the specific country requirements, and to develop linkages with the industries during initial teacher preparation programme, with specific emphasis on the unique nature of TVET and the realities of the world of work; continuous professional development for TVET teachers, not emphasizing on the attaining higher academic degrees, but to more relevant and applicable knowledge and skills in terms of changing technology and working practices.

To keep abreast with the fast changing technology, there is also a need to modify and develop competency-based curriculum for teacher training to be more responsive to the current trends of TVET and various industry requirements.

In addition to practical and hands-on industrial exposure of TVET teachers, there also requires constant and regular staff-capacity building, provision of training programmes in the development and upgrading of teaching aids and materials, taking into consideration the provision of adequate and up-to-date TVET equipment and facilities according to the training needs of workshops and laboratories.

To cater for the needs of the 21st century skills required by the industries, and to keep abreast with technology means that the TVET teaching environment is equipped with new technology and improved internet connectivity, as this will make them connected with the new trends of teachings and technology across the region and beyond.

To answer the issue on the demand and supply of quality TVET teachers to provide for the expanding and modernizing TVET training centres, there is a need for the TVET across Southeast Asia to come up with a policy that focuses to access to quality TVET as this would help address the issue of how to improve access to quality TVET teacher education and where to get quality TVET teachers, for example, the creation of database of pool of TVET experts of each member of the SEAMEO and Southeast Asian member-countries.

In addition to this, the call to develop an internationally accepted TVET teacher education standard framework for the region, such as the introduction of Qualification Framework, will ease the issue of TVET teachers' mobility across the region as all TVET teachers would have undergone standard and quality TVET accepted training programmes, where the curriculum in place, is consistent and responsive to the nature of multi-cultural societies.

Other areas highlighted that need taken consideration into are the need for a platform for the TVET teachers to voice areas of concerns, e.g. SEAVERN, RCP, the introduction of the concept of greening TVET using e-learning and radio-learning teaching programs, as well as the introduction of community of practice as a sort of model to the others for capacity building, where the mentors will be the drivers of similar areas of disciplines (senior teachers), as another form to help teachers by team, according to areas of discipline.

With concerted effort, support and collaboration from the various governing bodies of the Southeast Asian member-countries and the various industries, as well as the continued financial support from the non-government organizations, such as UNESCO-UNEVOC, the above recommendations, once given consideration and acted upon accordingly, it is envisaged that the TVET teacher education in Southeast Asia will catapult to a much higher level, benefitting various stakeholders of the TVET system across the region and beyond.

Chapter 4

Future Research Agenda

Following on the experts' presentations, in the afternoon the meeting was continued by discussing research agenda on TVET teacher education.



Lead by Mr Alias Abu Bakar and Dr Paryono and participated by all the experts, each was given an opportunity to share their country's issues on TVET teacher education that require follow up study. Based on the brainstorming, they came up with the list of prioritized research themes as presented below.

List of identified research themes on TVET teacher education:

- Mapping the industrial experience of TVET teachers: Current status and future initiatives
- Mapping the curriculum for pre-service TVET teacher education: similarities, differences, weaknesses, and strategies
- Attrition of TVET teachers: current status and possible factors in various countries in the region
- Demand and supply of TVET teachers
- Industry involvement in TVET teacher education and training in ASEAN countries and beyond
- The needs for regional standards for TVET teachers
- Regional and international recognition for TVET teachers
- Strategies for minimizing the cost for TVET teacher education
- Integration of greening initiatives in TVET teacher education
- Characteristics of good TVET teachers and mentors
- The roles of community of practice for TVET teacher continuous professional development
- TVET teacher education in anticipation of ASEAN Integration
- Information sharing/ Online database as an alternative for TVET teacher capacity building
- Assessing TVET teacher's competency

Appendices

1. Summary of comparative analysis of TVET Teacher Education
2. List of experts
3. Press release

Summary of Comparative Analysis on TVET Teacher Education

Country	Current Policies and Practices	Challenges and Issues	Strategies	Recommendations
Brunei Darussalam	<p>Educational reform led to new curriculum intended to equip Bruneian to meet the challenges of the 21st century</p> <p>Changing the way teachers are prepared for the classroom especially in the area of initial teacher preparation</p> <p>Upgrade of SHBIE (Institute for teacher education) into a graduate school</p> <p>Aims at ensuring high quality teachers in the school system and at the same time uplifting teachers' professional standard and image as "first choice profession" (Abdul Rahman Taib, 2009)</p> <p>Current ITP for TVET teachers:</p> <p>SHBIE, Universiti Brunei Darussalam :</p> <p>1) MTeach (TVET) programme</p> <p>2) GradDipEd (TVET) programme</p> <p>Continuing Education Centre (CEC), Universiti Brunei Darussalam:</p> <p>3) Diploma in Technical Education (DTE) programme</p>	<p>TVET teachers lack of industrial exposure and working experience to the industries</p> <p>Professional development of existing teacher in line with the changes in initial teacher preparation programmes</p> <p>Academic degree should not be seen as the only route for continuing professional development</p>	<p>Provide teachers with some sort of guidance and exposure during their initial teacher preparation phase.</p> <p>TVET teacher education should offer a clear pedagogic distinction compared with other areas of teacher preparation, and should better incorporate current practices, standards and technologies used within industry.</p> <p>Initial teacher education should greater accommodate the specific teaching style of TVET, customized to meet the requirement of industries.</p> <p>Pedagogic programs should meet the nature of TVET congruent with the unique world of work.</p>	<p>Learning how to develop linkages with the industries during initial teacher preparation programme.</p> <p>TVET teacher preparation should be developed more distinctly from other areas of teacher preparation, with specific emphasis on the unique nature of TVET and the realities of the world of work.</p> <p>Continuing professional development for TVET teachers is also another area that should not be misunderstood.</p> <p>There should not be an over emphasis on attaining higher academic degrees, as compared to relevant and applicable knowledge and skills in terms of changing technology and working practices.</p>
Cambodia	<p>The Royal Government of Cambodia has set the policy to train 300 of TVET teachers every year and so far more than 2,000 of TVET teachers have been trained and sent to work nationwide.</p> <p>Teacher Training is a one year program consisting of 37 credits.</p> <p>Senior Level: All candidates must hold Bachelor</p>	<p>Creating an Environment that Nurtures the occupations being taught</p> <p>Attracting females to TVET</p> <p>Linking NTTI (National Technical Training Institute) with Industry to meet the demand for skilled</p>	<p>Promoting quality teaching/training both hard and soft skills to meet labour market needs.</p> <p>Installation of adequate equipment and facilities according to the training needs of workshop and laboratories.</p> <p>Strengthening and upgrading of technical teachers based on new technology and current</p>	<p>NTTI (National Technical Training Institute) needs to develop and modify curriculum of teacher training to be more responsive to current trends of TVET.</p> <p>Staff-capacity building and teaching aids must be upgraded and developed.</p> <p>NTTI needs more TVET experts in the field</p>

	<p>Degree or higher</p> <p>Junior Level: All candidates must hold Associate Degree</p> <p>With support from ADB TVET specialists, we have conducted 6 workshops in 2012 in which 390 TVET teachers have been participated. The workshop focus mainly on skill upgrading in terms of andragogy, methodology, and soft skills</p>	<p>workers and Technicians</p> <p>Improving the undervalued Image of a Vocational Education (TVET as a second-choice for people)</p> <p>Collecting Labor Market Information in a timely manner</p> <p>Curriculum developer does not align curriculum to industrial standard</p> <p>Capacity development has narrow view.</p> <p>Staff motivation remains low.</p>	<p>and future needs of labour market (through national and international workshops)</p> <p>Developing competency- based curriculum to respond to the trends in technology and the labour market information.</p> <p>Increasing and promoting the use of new resources through action research, i.e, increasing internet connectivity for both teachers and students.</p> <p>Close collaboration with relevant employers and training providers.</p> <p>Motivating both teachers and students through professional development through in-service trainings.</p>	<p>of training to assist in the teacher training program and more training documentation</p>
Indonesia	<p>Teacher certification program</p> <p>Certification for In-Service Teachers, includes vocational High Schools</p> <p>Establishment of Teacher Certification Consortium</p> <p>National Standard of Education</p> <p>Qualification and Teacher Competence Standards are legal instruments being used as the basis for the implementation teacher certification.</p> <p>An educator certificate is formal evidence as the approval given to a teacher as a professional educator for in-service teachers and pre-service teachers.</p> <p>A teacher will be required to have academic qualification of Magister or Doctor taken from the accredited higher institutions in education or relevant subject and to fulfill the requirement of sufficient teaching experience.</p>	<p>Vocational high schools is an education at the secondary education level that prepares students into the job world</p> <p>Teacher's competence and experience needed to be able to educate, train and assist to produce students with skills required by the real work experience</p> <p>Certification of SMK in-service teachers</p>	<p>An independent education system associating education and training sector aiming to develop a nationally qualified person and certified person through formal education, non-formal, job training, practical learning schemes or work experience</p>	<p>The implementation of teacher certification, either through PF, PLPG, or PPG</p> <p>By a collaboration between LPTK as a teacher provider and partner education institutions and polytechnics as the institutions having the relevant vocational subjects</p>

Lao	<p>TVET is provided through 22 TVET institutions and 8 IVET schools</p> <p>MOES universities also provide formal accredited TVET programmes – in forestry agriculture and engineering</p> <p>With 86 national TVET private schools offering TVET diploma-level courses</p> <p>Non-formal TVET is implemented under the MOES in IVET schools</p> <p>Currently, with 2 types of institutions in the formal system – TVET institutions and Integrated Vocational Education and Training (IVET) Schools</p> <p>TVET Institutions cover technical, vocational or technical/vocational schools or colleges – offering up to three-year programmes for lower secondary school graduates and a variety of programmes at post-secondary level for upper-secondary school graduates</p> <p>IVET schools deliver formal TVET and non-formal basic vocational training to different target groups including adults.</p> <p>Pre-service training for teachers consisting of two levels Higher Diploma and Bachelor’s degree</p>	<p>Low qualification (academic and professionals)</p> <p>Low salary</p> <p>Limited movement</p> <p>Limited Co-operation</p> <p>Not unified teacher training system</p>	<p>Development of TVET Master Plan which covers:</p> <p>Expanding equitable access,</p> <p>improving quality and relevance, and</p> <p>strengthening planning and management capacities are the major areas of action</p> <p>Development of the 7th 5-year Education Sector Development Plan (2011-2015) which once again emphasized the following issues:</p> <p><i>-Introduction of vocational stream in upper secondary schools</i></p> <p><i>- Establish at least 3 vocational training centers at district levels</i></p> <p><i>-targeting of 300 new TVET graduate instructors and teachers per annum from 2012</i></p> <p>Pre-service Training</p> <p>-higher national diploma (hands-on)</p> <p>-Bachelor’s Degree (theory and/hands-on)</p> <p>In-service training</p> <p>-implement teaching competency standard</p> <p>-continuation of multiple training scheme</p> <p>-skills upgrading through contract training scheme</p> <p>-obtain teaching license</p>	<p>establish TVET teacher training institute for Laos in order to produce qualified teacher for TVET sub-sector.</p> <p>The Higher Diploma should be the (9+3) + 3 or certificate 4 plus 3 years and follow the model 1 provided in the report.</p>
Malaysia	<p>With various TVET teacher providers often operate at different perspectives</p> <p>There is diverse TVET management structures</p>	<p>Various TVET providers – operate as planned from different perspectives, result in overlapping courses and</p>	<p>The standard of TVE teacher training should be coordinated by authorized body to ensure the quality of training and outcomes fulfill the needs of global industries. Malaysian Quality Agency is</p>	<p>introduction of new models in the implementation of education TVET as new programs for high impact market value. These include introducing the New</p>

<p>and sharing of responsibilities by various government bodies</p> <p>TVE teacher Education programmes offered by public universities have been accredited by the Malaysian Qualification Agency</p> <p>MOE identified teachers' competencies as one of the most important enablers in the process of vocational education and training transformation.</p> <p>Current and future TVE teacher trained and educated with knowledge and skills related with industries need.</p> <p>The MOE has its policy by having 'open' policy of recruiting only the best and skillful vocational teachers, who are trained at the training institutes, universities and other training providers</p> <p>The Teacher Training Colleges under the Ministry of Education now undertakes the traditional training of teachers</p> <p>Four policy guidelines forwarded to mainstream and elevate access to quality TVET in Malaysia:</p> <p>(a) Improving the perception of TVET and attracting more trainees, through more intensive national media campaign;</p> <p>(b) Upgrading and harmonising TVET curriculum quality in line with industry requirements, by initiatives which include standardising TVET curriculum, recognising the national skills qualification, and establishing a new Malaysian Board of technologists;</p> <p>(c) Developing highly effective instructors, including to establish a new Centre for Instructor and Advanced Skills Training; and</p> <p>(d) Streamlining the delivery of TVET, including to review the current funding approach of TVET</p>	<p>creating confusion for teachers and employers</p> <p>This has implications for the standardization of training and qualification, cost-effectiveness, quality assurance, recognition of prior learning and further education of TVET graduates</p> <p>Lack of effective coordination, sharing of resources and articulation within the overall system</p> <p>No single oversight body to provide overview of TVET landscape</p> <p>Absence of a common platform for developing coherent policies and joint initiatives</p> <p>New challenge in Teaching and Learning</p> <p>Qualification standard</p> <p>Mismatch within Education System</p> <p>Demand-Supply Mismatch</p>	<p>one of the accreditation bodies responsible to recognize academic programmes. This is to ensure standard training and education to all TVE teachers provider.</p> <p>Strengthen working relationship with other TVET providers and private educational institutions in Malaysia and internationally;</p> <p>Efforts are being made to introduce a method of student recruitment through the Accreditation Prior Experience Learning (APEL) in TVET in line with My3L program (MoHE) where experienced and professional people join the teaching profession. This recruitment method could indirectly enhance the teaching profession in TVET.</p> <p>Cross collaborate with other ministries and department. E.g. Collaboration with Ministry of Higher Education and Ministry of Human Resource which allow both ministries to change training content and cross articulation.</p>	<p>Bachelor of Vocational Education</p> <p>Encouraging TVET provider to join professional Education bodies to ensure international recognition can be embedded in certification.</p> <p>TVET providers were advised to join international TVET members e.g. Regional Co-operation Platform (RCP), UNESCO-UNEVOC and Colombo Plan Staff College (CPSC).</p> <p>Establish joint programmes between other ministries or countries. Introduce and strengthen 'double degree' or 'joint degree' and 'double major' is a popular program that has been established by developed countries in the world. "Higher Education with Vocational Training" as part of strategy to enhance the promotion of "double degrees".</p> <p>Propose accreditation body to provide professional teaching licensing as given to Engineering graduate who complete their professional body requirement (e.g. BEM).</p> <p>TVE teachers training focuses on extremely academic or skills bias, for those who do not do well 'academically' will do skills training and yet pointed to be TVET instructor. This view persists due to two different streamline. UNESCO-UNEVOC contemplates on changing the name TVET to something nearer to 'Skill & Knowledge Development for Employability'. Apply National Dual Training System (NDTS), as part of TVE teachers training. Approximately 70-80% of the training is done in the industry, while the remaining 20-30% is carried out in training institutions, utilizing curriculum developed by the National Occupational Core Curriculum (NOCC).</p>
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	<p>and to undertake performance ratings of TVET institutions</p> <p>Policy on Human Resource Development Fund (HRDF) – a training levy-reimbursement scheme that provides accelerated industrial training and offer enormous opportunities and avenues for companies, industry associations and public/private industrial training institutions that contribute to more responsive and relevant for skills development.</p>			
Myanmar	<p>Education for Work policy</p> <p>Provision of the following since 20120:</p> <p>short-term skilled training courses are provided for the teaching staff regionally</p> <p>Two months Special training Courses for technical teaches conducted every year in Yangon Technological University and Mandalay Technological University.</p> <p>Provision of Internet connection for every TUs, GTCs, GTIs, GTHSs</p> <p>E-learning System is established to make accessible to use in teacher’s education and training.</p> <p>Further trainings are implemented with International organizations for Technical Teachers Training, e.g. with Government of Indonesia, GIZ German organization, and Ministry of Science and Technology sent Myanmar Teachers to Indonesia for training, as a trilateral cooperation.</p> <p>Comprehensive Education Sector Review (CESR)is implemented, funded by AUS AID, United Nations Organizations and other International Non-government Organization.</p> <p>Establishment of Curriculum for technical education in line with National Skill Standard (NSSA) National Skill Standard Authority</p>	<p>Mainly in insufficient budget.</p> <p>Unbalanced teacher-student ratio</p> <p>teachers need to have capacity building.</p> <p>teaching aids currently in use are out-of-date equipment.</p> <p>left behind in Technology for nearly two decades,</p> <p>need more pre- service training for new recruited teachers.</p> <p>lack of qualified educationist for updated pedagogy.</p>	<p>Finding means and ways to get more Budget permission from our Parliament,</p> <p>Collaborating with International organizations</p> <p>Planning for recruitments for new teachers by regionally.</p> <p>Planning to upgrade Teachers Training Centers to be Technical Teachers Training Institutes.</p> <p>Inviting Experts from Industry and private workshops to the Universities skill training for technical teachers in six Industrial training centers, collaboration with Ministry of Industry</p> <p>Reviewing curriculums for teacher’s education</p> <p>Changing curriculums for TVET teachers training.</p> <p>Drafting and proposing for TVET legal framework</p> <p>Developing quality assurance framework</p>	<p>The Department of Technical and Vocational Education willingness to receive any assistance and suggestions, comments, technical assistance, any training for trainers to provide any technical education for teachers in the country on the current teacher’s education processes.</p>

	(g) As a member of ASEAN Qualification Framework (AQF) and National Qualification Framework (NQF), the quality of teacher has to be redefined to meet requirements of NQF and AQF.			
Nepal	<p>Anybody who passed technical school education could become a TVET teacher</p> <p>The condition for recruitment of professional teachers in vocational schools is usually Diploma level, bachelor degree or master degree in some special field.</p> <p>Not mandatory for pre-service training or in-service training</p> <p>Only a very small part of vocational school teachers have received pre-service professional education for TVET</p> <p>competence standard of TVET teaching and training staff in Nepal</p> <p>No TVET teacher licensing system</p> <p>Teaching is the least preferred occupation</p> <p>Nepal has some 10 thousand TVET teachers - CTEVT constituent School- 700 -Annex School- 300 -CTEVT Affiliated private school- 8000 -Other -1000</p>	<p>National/International Coordination</p> <p>National Resource allocation in TEVT teacher education</p> <p>Quality Standard</p> <p>Institutionalization of peer review and continuous monitoring of teachers</p> <p>Lack of autonomy: qualifications, course content, lecturers perceptions</p> <p>Lack of teacher networking Scholarship for teachers, especially those in deprived areas Access/Affordability/Inclusion/equity Teachers have a low self-esteem and are frustrated</p> <p>Human Resource Development within CTEVT and its institutes</p> <p>TVET teachers have better non-teaching job opportunities in industry Industry institute linkage</p>		<p>Networking among teachers to facilitate information sharing and collegial support</p> <p>Teacher involvement in policy making bodies</p> <p>Long term HRD policy in CTEVT</p> <p>TVET Teacher licensing system</p> <p>Pre-service, In-service training strategy</p> <p>Regional and international cooperation for teacher education</p> <p>Resource allocation for TVET teacher education program</p> <p>New innovation in education system: e-learning, School-based training, apprenticeship , course base on occupation classification and industry section</p> <p>Accelerated promotion based on education and training qualification</p> <p>Special quota for study leave with pay University-school co-operation</p>
Singapore	<p>Uses the “Teachers have to know and be able to do” philosophy</p> <p>Entry point = have done 10 years of education</p> <p>TVET program is 2 years</p>	<p>Relevance of the pedagogic competencies for TVET</p> <p>Flexibility and adaptability of programme structure</p>	<p>Basic TCPK</p> <p>Enhanced and Innovative TCPK</p> <p>Authentic and innovative learning at ITE</p>	<p>teachers themselves must first be prepared and developed to be future ready with the right competencies so that they can prepare students to acquire 21st Century competencies and be future ready</p>

	<p>Does not have degree level of education</p> <p>Trains teachers for the institutes own need</p> <p>Produces 12 thousand graduates per year</p> <p>Focuses on certificate level</p> <p>Uses CBC model of learning – applicable in authentic learning environment</p> <p>Theory class has 40 students</p> <p>Vocational pedagogy (TPCK) capability - where working knowledge is included in addition to the three areas of content, pedagogy and technology, (technological pedagogical content knowledge -TPCK)</p> <p>TPCK development framework - setting out of a 3-level TPCK Development Framework as to systematically and progressively develop its TVET teachers towards teaching excellence via professional pedagogic development and communities of practice</p> <p>Initial TVET teacher education for Level 1 Basic TPCK acquisition – where ITE adopted practice-based, hands-on experiential learning, to suit its students who learn well by doing. To cater to this unique pedagogic need of its teaching staff,</p>	<p>Quality of Mentors</p> <p>Rare and lacking competencies in identifying and defining relevant and up-to-date vocational pedagogic competencies for 21st Century TVET</p>	<p>Quality Teacher Development Framework</p>	
<p>Thailand</p>	<p>OVEC is responsible for vocational and professional lifelong learning.</p> <p>The provision of technical and vocational education and training is offered through the formal school system, in both the basic and vocational education streams, as well as through non-formal education opportunity.</p> <p>Graduates are awarded a certificate</p> <p>Formal vocational and technical education is conducted at three levels:</p>		<p>push forward the development of vocational education to meet the market demand and the upcoming free labor transfer within the ASEAN region in the future.</p> <p>The National Vocational Education Plan has been pointed out as the following:</p> <p>The vocational education policies setting goal to improve the quality of the vocational graduate students based on demand and supply</p> <p>The current Secretary-General of OVEC</p>	<p>Setting the vocational teacher development institution of Thailand— Autonomous organization</p> <p>Considering the professional regulatory under the MRAs to enlarge for the vocational teachers transfer or exchange programs in the SEA region</p> <p>Diversity Team</p>

	<p>upper secondary (leading to the Lower Certificate of Vocational Education),</p> <p>post secondary (leading to a Diploma or Vocational Associate Degree) and</p> <p>university level (leading to a Degree) – Vocational Institution</p> <p>There are 415 colleges working under the OVEC.</p> <p>The major programs has been offering to the vocational stream including industry, arts & crafts, home economics, business & commerce, tourism, agriculture, fishery, textile industry, and technology information & communication.</p> <p>Total number of vocational students in formal school system tended to decrease from 693,038 in 2010 to 684,055 in 2011.</p> <p>the total number of vocational students in non-formal stream accounted for 900,501 was higher than in formal stream accounted for 684,055 in 2011.</p> <p>The majority of vocational students enrolled in industry and business & commerce programs.</p> <p>Conducting the Native Foreign Experts In 2011, OVEC allocated the budget 144 million baht to improve the occupational and language skills by asking the native foreign experts and occupational wisdom people to teach or work in schools directly.</p> <p>The languages provided in class such as English, Chinese, Japanese, ASEAN languages and so on.</p> <p>The knowledge was summarized on CD, hard copies, and uploaded on the website of OVEC.</p> <p>Improving Learning Management Using PBL – Biodiversity As the global situation always change, the problem of agricultural situation should be</p>		<p>(Dr.Chaiyapruerk Serirak) gave the TVET policies divided into 4 major dimensions as follows:</p> <p>Dimension 1: Giving an opportunity of vocational education to all</p> <p>Dimension 2: Developing the quality of the vocational student</p> <p>Dimension 3: Establishing the effectiveness of TVET management</p> <p>Dimension 4: Cooperating the TVET management</p>	
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	<p>concerned in Thailand. It may involve balancing between energy and food of the world. This will effect happening of any disasters and environmental changes.</p> <p>OVEC provides the agricultural education using Future Farmers of Thailand Model.</p> <p>Project based learning or problem based learning (PBL) is one of the good teaching methods for agricultural teachers. –TVET Teacher must understand how to integrate SD into Ag Ed. Curriculum. ---</p> <p>Hence, OVEC has launched the program of improving learning management using PBL</p> <p>Increasing the Potential of Occupational Skills</p> <p>The bureau of personnel competency development has done in many fields to increase the potential of vocational teachers' occupational skills in major of hospitality, arts and crafts, business and commerce, foods, jewelry design, logistics, construction, electronics, mathematics in GPS and so on.</p> <p>Developing the instructional Media</p> <p>Strengthening the TVET Networking with other organizations in both public and private sectors</p> <p>OVEC has cooperated with other organizations including public and private sectors such as</p> <ul style="list-style-type: none"> -National Science and Technology Development Agency : NSTDA, -Thailand National Electronics and Computer Technology Center: NECTEC, <p>Thai Federation on Logistics, Kasetsart University: KU, King Mongkut's University of Technology Thonburi: KMUTT</p> <p>The Federation of Thai Industry (FTI) and so on.</p>			
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	Expanding overseas partnership			
Vietnam	<p>TVE teachers' salary</p> <ul style="list-style-type: none"> -High compared with the average -Low compared with that in the region <p>The professional development: Pre and in – service training</p> <p>Education is the national and leading policy Innovating: primarily and fully</p> <ul style="list-style-type: none"> -Management -Contents, Curricula -Teaching and Assessing Methods <p>Development of teaching staff is the decisive solution</p>	<p>The quality of TVE – low (compared with that in the regional areas)</p> <p>Teaching equipments or aids: insufficient and out of date</p> <p>Too many industries</p> <p>No specific training programs for TV-teachers</p>	<p>Develop the quality assurance frameworks</p> <p>Develop standards for TVE-teachers</p> <p>Develop the database for TVE teachers</p>	<p>Develop indicators and evidences for TVE standards.</p> <p>Develop assessment tools that help TVE teachers to do self-assessment against the professional standards;</p> <p>Research of the training needs and development of training materials</p>

**A non-SEAMEO-member country*

Participants for Experts Meeting
Organised by SEAMEO VOCTECH and UNESCO-UNEVOC
In Conjunction with International Conference on
The Excellence in Teacher Education and Research Innovation
by Rajabhat Universities Network
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Page 10 Homepage Borneo Bulletin, Thursday 27 December 2012

SEAMEO VOCTECH & UNESCO-UNEVOC organise TVET Experts Meeting

THE International Conference on the Excellence in Teacher Education and Research Innovation is currently being held at The Royal Orchid Sheraton Hotel, Thailand. The conference, which began on Tuesday and ends tomorrow, is held in conjunction with "The 120th Thai Education Anniversary Celebration" which honours His Majesty the King Bhumibol Adulyadej of Thailand as "Teacher of the Land".

One section of the conference, the Technical and Vocational Education and Training (TVET) Experts Meeting involves discussions on the topic "TVET Teacher Education in Southeast Asia: Current Status and Future Research Agenda". It is organised by SEAMEO VOCTECH (Brunei Darussalam) and UNESCO-UNEVOC (Germany) and supported by the Rajabhat University, Thailand.

The Director of SEAMEO VOCTECH, Awg Alias Hj Abu Bakar who is the designated Session Chair at the International Conference, is leading the Centre's team to oversee the meeting proceedings, outputs, and synthesis. The SEAMEO VOCTECH members include Dr Paryono, Deputy Director (Professional); Mr Hj Nordin Hj Ahmad, Finance Manager; Mrs Cynthia Abdullah, VTE Specialist; and Ms Noorashikin Hj Nawe, Research Officer.

The Ministry of Education (MoE) is represented by Dr Hjh Romaizah binti Hj Mohd Salleh, Director of Department of Planning, Research and Development, and Hjh Siti Aisyah binti Mohd Ali, Acting Director of Human Resource Development. Meanwhile, Dr Chin Wei Keh is the TVET teacher expert representing the Sultanate.

The TVET Experts Meeting serves as an avenue for sharing by invited experts from the Southeast Asian (SEA) countries and Nepal.

The meeting hopes to obtain results with its three-pronged objectives: to map out the current development of TVET teacher education in SEA countries; to plan a research agenda on TVET teacher education in the region; and to offer a research capacity building opportunity for the expert group by participating in the International Conference on the Excellence in Teacher Education and Research Innovation. **(CD Sampang)**



TVET Experts Meeting and MoE representatives in a group photo