

**REGIONAL WORKSHOP**  
**ON**  
**VOCATIONAL EDUCATION:**  
**POLICIES, PROGRAMMES AND INNOVATIONS**  
**(5-8 November, 2012, New Delhi, INDIA)**



**REPORT**



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**Asian Network of Training and  
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# **REGIONAL WORKSHOP ON VOCATIONAL EDUCATION: POLICIES, PROGRAMMES AND INNOVATIONS**

## **BACKGROUND**

A growing economy requires an expanding pool of skilled people. The need for skills and the demand for technical and vocational education is increasing because of positive growth resulting from globalization, technological change, changes in work organization, and an urge to maintain and improve national competitiveness. The supply of skilled technicians is identified as a major constraint on competitiveness. Skill deficit and lack of good quality training facilities have aggravated the situation of skill shortage forcing firms in many countries to relocate their units elsewhere. There is a need to develop comprehensive policies linking development imperatives, employment opportunities, and skill development strategies. There are different ways of organizing skill formation and vocational training. Technical and Vocational Education Training (TVET) takes place through formal modes throughout upper secondary or post-secondary non-tertiary institutions, separate training centers, non-formal training arrangements, and enterprise-based training. Traditionally, the apprenticeship system was the major source of skill development in many countries of South Asia. Now vocational training is increasingly offered by private institutions, reducing the burden of public financing of TVET education. Many countries are developing a common curriculum at the lower secondary level so that all children become oriented with skills relevant for the labor market. Technical and vocational education is not only seen as occupational preparation but also as part of lifelong learning.

Countries in the South Asia and South East Asian Region accorded differential emphasis on vocational education and training. There is a diverse pattern of provision of vocational education and training in many countries. Vocational Education (VE) is imparted largely in two major ways: vocational education and training in formal education systems at lower and senior secondary education level, and training outside formal system of education (pre-employment training and on-the-job-training). In many Asian countries, the formal vocational education and training is imparted either through exclusive vocational education institutions or within

secondary schools as diversified system. The latter kind also includes apprenticeship-training systems, non-formal training centers, enterprise-based training and so on.

## **OBJECTIVES:**

The main objectives of the workshop were:

- To review policies and programmes in the area of Vocational Education and Skill Development;
- To identify critical areas requiring empirical research with respect to Vocational Education and Skill Development;
- To discuss research themes and methodology
- To prepare a draft research proposal for studying Vocational Education and Skill Development in a comparative framework.
- To prepare a broad frame work for a comparative and collaborative research on identified critical areas.

## **METHODOLOGY OF THE WORKSHOP**

The Workshop was especially designed for participants from ANTRIEP member institutions and other invited countries/ institutions of Asia. The nominated participants from all the countries were requested to prepare a country status paper on Vocational Education and Skill Development reflecting policies, programmes and innovative field experiences in the respective country. The participants from their respective countries presented these papers in the first two days of the workshop. On the third day, participants were divided into three groups and discussed about the common issues, problems and challenges related to vocational education across the South, South East and East Asian countries. The groups also identified themes for research and common critical areas for research. The output of these discussions was in the form of presentations made by each individual group. Based on the deliberations during these presentations, the three groups were then divided into two groups on the last day of the workshop and prepared a tentative

research proposal on issues surrounding the technical and vocational education. The detailed workshop schedule is attached in annexure I.

**Programme Organisation:** Professor K. Sujatha, Focal Point for ANTRIEP was the Programme Director and Dr. V. Sucharita was the Programme Coordinator.

### **INAUGURAL SESSION:**

The inaugural session was chaired by Prof. R Govinda, Vice Chancellor of NUEPA. Dr. Shigeru Aoyagi, Director of UNESCO cluster office, New Delhi, and Dr. Suzaane Grant Lewis, Deputy Director, IIEP graced the occasion. The inaugural address was delivered by Prof A. K. Sharma, former Director of National Council of Educational Research and Training (NCERT). The inaugural session ended with a vote of thanks by Prof. K. Sujatha, NUEPA.

In his welcome address, Prof. R. Govinda briefed the participants about the genesis of the ANTRIEP network. He also gave an overview of the programme highlighting the fact that skill development has occupied the centre stage of educational programmes all over the world and experiences of other countries would be of immense value.

Shigeru Aoyagi, the director of UNESCO cluster office, New Delhi addressed the participants and stressed on two major challenges which the world is facing today: Population explosion and youth unemployment. He stated that youth have great potential to involve in the economic development of the country, but at the same time they consist of huge percentage of unskilled people. In this regard, UNESCO is trying to promote holistic structural change in education sector and views TVET as one of the important tool to tie up between education sector and business sector.

In her presentation on “Engaging youth in planning education for social transformation”, Dr Suzaane Grant Lewis highlighted the discussions and recommendations that came up in the IIEP policy forum at Paris during 16-18 October, 2012. The theme was on how to engage youth in conflict transformation and peace building, civic engagement, and developing skills for transition to employment. She stated that education is not a panacea and it is not going to create jobs, but

nonetheless it must respond in ways to ensure that it is relevant in helping to set ways for the youth for the future.

### **SUMMARY OF KEY NOTE ADDRESS:**

The keynote address was delivered by Prof. A. K. Sharma, Former Director of National Council of Educational Research and Training (NCERT). He gave a historical overview of the vocational education sector in India from post-independence till date. To start with, the major concern in the Post independent India was the vocationalization of education. Secondary Education Commission (1952-53) appealed that higher secondary education has to be vocationalised. The Commission recommended introducing vocational streams at the end of class VIII. So vocational areas and sectors were identified and these were instituted in the school system itself. Unfortunately, the country witnessed some kind of educational system which did not respond to the priority areas. Education Commission (1964-66) report recommended that school education has to be 12 years and vocationalization should take place at the end of 10<sup>th</sup> year of schooling. Thus, the concept of vocational education after higher secondary had to be redesigned. He then reiterated the fact that one of the things which affected VE at school stage was it was considered as a terminal kind of an education. Status perception of students joining VE was also considered to be very low. Academic education was considered to be superior and there were not many takers for VE. In the recent NVEQF document, terminality of VE is answered. He highlighted that no programme is terminal in nature and students can change from VE to general education and vice-versa. This change from what happened to earlier VE as a part of formal school system and what is being visualized now as a focus on skill development is probably of some hope that we are moving in some direction which will now achieve the VE programmes to a right kind of finish.

He concluded by saying that the challenge is how to attend those 80% population which is not transiting to university education. It's a moral duty of any nation to provide some kind of education by which this huge percentage of youth population can also contribute to the socio-economic development of the nation.

## **PRESENTATIONS SUMMARY**

There were fifteen papers presented during the workshop and all papers broadly reflected on the emerging issues and challenges of vocational education and skill development in the respective country. The summary of each country presentation is discussed below.

In Malaysia, vocational education is industry led, client focused and fully supported by the government. The Malaysian Qualification Framework (MQF) is an instrument that develops and classifies qualifications based on a set of criteria that is agreed nationally and benchmarked with international practices, and which clarifies the academic levels, learning outcomes and credit system based on student academic load. These criteria are accepted and used for all qualifications awarded by higher education providers. Hence, MQF integrates and links all national qualifications offered by both public and private educational institutions such as colleges, universities, vocational institutions and professional organizations.

In Nepal, the major policy thrust of TVET is the expansion of training opportunities, inclusion of and access of training to all citizens who need training, integration of various training modes and training providers into one system, linking training contents and outcomes of the training with market demands, and sustainable funding for TVET.

In Bhutan, the Technical and Vocational Education and Training (TVET) reform process has adopted the Competency Based Training (CBT) model and has been very instrumental in facilitating and promoting gainful employment in the country. The formal VE&T programmes are carried out by the Department of Human Resources which is responsible for certificate level technical education in various occupational skills. DHR is mandated to support private sector Human Resource Development (HRD) and coordination and monitoring of private training institutes. The informal VE&T programmes include the Village Skills Development Programme aimed to sustain development and quality of life in rural Bhutan.

In Australia, the key elements of the VET system are: Australian Qualifications Framework, Australian Quality Training Framework, Industry skills councils, and registered training organisations. Training Packages and accredited courses are the basis on which training is delivered by Registered Training Organisations (RTOs) in the VET sector across Australia. The Australian Qualifications Framework (AQF), established in 1995, is a national policy that covers

qualifications from the tertiary education sector (higher education and vocational education and training) in addition to the senior school-leaving certificate. The AQF is structured by levels and qualification types. The VET Quality Framework through the AQTF includes standards for registration, auditing and quality assurance of the VET sector and standards for accreditation processes. The Australian Core Skills Framework (ACSF), one important innovation in VET describes levels of performance in the literacy, numeracy, and employability skills. The Core skills for Work and the Australian Core Skills Frameworks would be the sensible starting point for measures of students' generic capacity and outcomes. The key issues and challenges in VET provision in Australia are rooted in the funding models and evidence of quality outcomes.

In Maldives, the main responsibilities of TVET include developing and receiving National Competency Standards leading to MNQF certification levels approved by Employment Standards Councils (ECS), developing and updating the curriculum and learning material models based on these Competency Standards; monitoring and evaluating TVET programs and carrying out assessments of such programs. Apart from this, the Employment Based Training (EBT) is apprenticeship option that combines on-the-job training with technical training to become a skilled tradesperson. Recruitment and training is decided, planned, managed, and implemented by the employer.

In the Indian state of Uttar Pradesh, the centrally sponsored scheme of vocational education was started in 1989-90 from Intermediate level (higher secondary level). In the first phase of this scheme, 200 schools were covered while in the eighth phase, 892 schools were covered under the scheme. During the year 2011-12 the total number of students enrolled was 73920 with a result 95.5%. Thus, an important feature of the financial scheme introduced by the Union government is that along with scholastic education enough time is given to vocational education so that practical life skills may be developed in students properly.

In Sri Lanka, the Ministry of Vocational and Technical Training (MVTT) introduced the National Vocational Qualifications (NVQ) framework in 2005, which was an important milestone for the education, economic and social development of Sri Lanka. It is based on competency standards, competency based curricula, competency based training and assessments, and quality assurance.



In Philippines, TVET evolved from being a non-formal to formal education, and the training delivery was virtually divided two: school-based and center-based. The former is composed of technical high schools and post-secondary institutions under the Bureau of Technical and Vocational Education (BTVE), the latter consists of a network of regional and provincial training centers managed and operated by the National Manpower and Youth Council (NMYC). Thus, there were two main government agencies responsible for TVET until Technical Education and Skills Development Authority (TESDA) was created in 1994 to unify the units involved in TVET management. TESDA is responsible for the overall management and direction of the TVET system that encompasses middle-level skills development (semi-skills, craft and technician training) in all sectors. The Philippine National Qualification Framework (PNQF) was developed to establish a unified national system covering all recognized qualifications in the country. It encompasses all levels of education from the completion of the high school diploma, to certificates for initial entry to the workplace, to Doctoral degrees.

In Bangladesh, the National Education Policy NEP (2010) acknowledges the importance of skilled workforce as an essential resource for national development. Apart from NEP, the Non-formal Education (NFE) Policy has also emphasized on the necessity of technical and vocational education as an essential tool for human development. The introduction of a new National Technical and Vocational Qualifications Framework (NTVQF) would expand the number of qualification available in the country to better reflect the growing and changing occupational and skill profiles in both domestic and international labour markets. One major outcome of the TVET reform project is the National Skills Development Policy 2011 funded by the Government of Bangladesh, the European Commission and ILO.

In Pakistan, there are 30,204 TVET institutions in the country with 15,591 teachers and enrolment of 281,086. The technical and vocational education in the country has been reorganized through the establishment of provincial and federal technical and vocational authorities. The Government of Pakistan established the National Vocational and Technical Training Commission, (NAVTTTC) in 2006 with the mandate to facilitate, regulate, and provide policy direction for technical and vocational education and training to meet the national and international demand for skilled manpower. To provide a framework against which to deliver its mandate, NAVTTTC has developed ‘Skilling Pakistan: the National Skills Strategy, 2008-2013’.

The strategy has been prepared according to best practices in stakeholder identification and consultation. The Policy proposes a framework to create a high quality skills development system that ensures inclusion and employability, is responsive to the changing demands of the local and global economy, and helps promote and sustain social and economic development.

In Korea, two important types of VE programmes exist: formal and informal. VE begins at high school level and mainly performed by special purpose high schools and specialized high schools. VE is mainly performed by special-purpose high schools and specialized high schools. VE at higher-education level is provided by junior colleges, industrial colleges, in-company colleges, cyber colleges, etc. Under the informal type, VE and T institutions certified under the Lifelong Education Act include lifelong education facilities affiliated with workplace, those affiliated with civic groups, those affiliated with schools, those affiliated with mass media organizations, those affiliated with knowledge and manpower development businesses, private technical learning institutions, and lifelong curriculums in colleges.

In Indonesia, vocational education consists of 40 programmes which include technology, IT and communication, Health, Arts-handicrafts-tourism, agribusiness, management and business. Globalization either through binding mechanism (such as World Trade Organization (WTO) and ASEAN Free-Trade Agreement (AFTA)); and non-binding mechanism (APEC) as well as bilateral mechanism have been an inevitable cooperation between nations. The development of VE focuses on the improvement of teacher competence, especially on vocational subject matters, the provision of educational workshop which facilitates students to develop their vocational competencies, and building a linkage between vocational schools and industries.

### **SUMMARY OF THE PANEL DISCUSSIONS:**

The panel discussion on “Vocational Education and Training in India: Policies, Programmes and Innovations” was chaired by Prof. Santosh Mehrotra. He argued that the country is at a very interesting juncture in the development in the VE. In the secondary school, VE is currently imparted from class 11 while in the NVEQF, it is proposed from class 9 which has already been piloted in two states. He argues that one of the major problems in TVET space is that it has been

supply driven. The only way government TVET programmes thrive, can only happen with very strong partnership with private sector. Therefore, a very strong partnership with private sector is required. He further argues that India has large formal sector, but compared to rest of the economies, it is not very large. Most of the people are working in informal economy with informal training. It has to change in a big way only if private sector comes in much bigger way. The current number (265 million) which are receiving training is still very small. And there lies a huge challenge ahead of the country.

Presentation by Ms. Bhavana Chauhan from NSDC emphasized on the requirement of about 347 million skilled manpower over the next 10 years for sustaining the growth of industries. Thus, NSDC was given the target of skilling/upskilling 150 million people by 2022 by fostering private sector initiatives. NSDC achieves this mandate through three pillars: Proactively catalyze creation of large quality vocational training institutions, reducing risk by providing patient capital, and creating a viable ecosystem. Stressing on the challenges, the presenter highlights that the current system lacks parallel pathways for higher education and also lacks career paths for school dropouts.

In the presentation on “Vocationalization of Secondary Education: The Open Schooling Perspective”, Dr, Sitonshu S. Jena from National Institute of Open Schooling (NIOS) highlighted some of the basic facts related to VE. In the age Group of 15-29, only 2% have formal vocational training, 8% have acquired non-formal vocational training and 93% of the workforce in this age group is in unorganised sectors. The 12<sup>th</sup> five year plan lays emphasis on VE and on the introduction of NVEQF. NIOS Open Educational Resources (OER) in vocational education include developing exemplary courseware, both print and non-print forms in selected vocational subject areas. Subject areas selected are Computer and IT, Tourism and Hospitality Management and Rural Technology. Another major initiative of NIOS is on the Recognition of Prior Learning (RPL). NIOS adopts quality control in four areas: Designing Curriculum by the experts drawn from industries and academia, Development of Course Material and other Learning Resources, Hands on Training to the Learners through Partner Institutions/Organisations and Staff Development including Training of Instructors. Some of the challenges, however, remain like linkages between School and University on VET, participation of Industries in Curriculum

Design, Placement support, Teachers' Capacity building, Recognition of Prior Learning (RPL), and so on.

The presentation of UNESCO's TVET Strategy (2010-2015) by Mr. Alisher Umarov focused on the new challenges for TVET which include preparing the youth for the future job market and congruence between the new world of work and new skills. It is estimated that over the next decade, the world's working- age population will increase by an estimated 600 million, which implies that 600 million more jobs at the global level are to be created. It called for deep transformation and expansion of TVET and identified several areas of action to tackle these issues, including:

- expanding access to TVET and improving its quality and equity;
- improving the relevance of TVET which provides young people with skills that are relevant to the labor market;
- enhancing international cooperation and dialogue on the standardization and recognition of TVET qualifications which can promote the mobility of skills;
- building partnerships among all stakeholders such as public, private and civil society organizations.

UNESCO TVET strategy (2010-15) focuses on three core areas of work:

- Provide upstream policy advice and develop capacity at the country level
- Facilitate conceptual clarification and improve the monitoring of TVET
- Act as a clearinghouse and inform the global TVET debate

UNESCO leads the global debate by advocating for the rethinking of TVET to enhance its role in developing more equitable and sustainable societies.

## **SPECIAL LECTURE BY SHRI S. RAMADORAI:**

The special address of the workshop was delivered by Shri. S. Ramadorai, Advisor to Prime Minister on Vocational Education and Skill Development.

He stressed on the fact that for various reasons, the urban India led the growth story so far but unlocking the potential of other India both in terms of demand as well as supply is the need of the day. Almost 60% of India's population are in the working age group. However, only half of the capacity is utilized and only 5% in the age group of 19-24 had formal training. According to UN report, the current working age population will increase globally by about 600 million. He argued that long term growth cannot be sustained unless our villages are equal participants and contributors in the long term prosperity. He suggested that threefold challenge needs to be addressed:

- Skilling of new entrants who enter the workforce
- Up skilling the workforce for higher order skills
- Recognizing informal on the job training of existing workers

Students' perspectives and issues largely revolve around three factors: information gap and asymmetry, access to finance, and negativism associated with VE. Technology can play a very critical role in managing the skills ecosystem especially in a system as complex as Indian ecosystem.

## **OUTCOME OF GROUP WORK:**

During the workshop, the participants were divided into two groups and were asked to identify key research areas in the field of technical and vocational education.

The following research areas were identified by the groups:

- Problems in skill development
- Policy and funding
- Critical analysis of existing policies
- Provision and Participation
- Quality of relevance

### **THE VALEDICTORY ADDRESS:**

The valedictory address of the workshop was delivered by Ms. Radha Chauhan, Joint Secretary, Department of School Education, MHRD, Government of India.

Emphasizing on the planning phase of any programme, she stressed that objectives which are planned and the actions at the field level should match at some level. She further stated that the current focus is not to provide VE per se, but to ensure the VE content, skills competency imparted at school level is of potential of getting employed when he passes out of the school. The social barriers in VE are an important area to look into because of the social stigma attached to it. Parents may not encourage the child to join VE who otherwise may not be academically oriented. One way of getting rid of such issues is to introduce VE as part of general academic structure at class 9 rather than streaming it. She concluded by saying that the workshop has come timely and ventured on issues that need to be addressed immediately.

**ABSTRACTS OF THE PAPERS**

## **Facing the Challenges of Core Skills in Vocational Education in Australia**

*David Tout  
ACER, Australia*

The 2006 international Adult Literacy and Life skills survey (ALLS) showed a large proportion of the Australian adult population in the lowest two bands of achievement in literacy and numeracy. The release of the ALL survey results has had a much wider impact than did the release of the International Adult Literacy Survey (IALS) data a decade earlier. Australia has also recently taken part in the Programme for the International Assessment of Adult Competencies (PIAAC), and the results of PIAAC will be available later in 2013, or early 2014. Recognition that Australia has a significant “core skills” gap and that core skills are directly related to workforce training and productivity has resulted in a number of key reports and papers and has led to an increase in the number and scope of different programs and strategies to improve the LLN skills of the Australian population and workforce. This presentation will look at how ALLS has impacted on Australian policy and practice, including the considerable interest and commitment from Industry and Government, and how the challenges are being addressed in terms of a range of different programs and training related to the up-skilling of the Australian vocational education and training workforce

### **Vocational Education and Training in Bangladesh:**

#### **Policies, Programmes and Innovations**

*M. Mahbubul Kabir  
BRAC, Bangladesh*

Having over 60% population in the age group 15-64 years, Bangladesh is aspiring to be a middle-income county by 2021. A demographic dividend is to be utilized through better management of human resources - equip them with appropriate knowledge and relevant skills. Therefore, importance of the vocational education system (VET) is highly placed in the government policies and plans including in recent ‘National Skill Development Policy 2011’. Both private and public sectors are active in the VET sector, around 292 government and 3965 non-government institutions are offering different vocational and technical courses, various reforming initiatives are underway; however, increasing enrolment in this



stream at the post-primary level from the current 3% to 20% is still a far reaching goal. Recent studies show that the VET is suffering from many shortcomings in management, delivery, quality, relevance. On one hand, it is unable to comply with shifting market demands, and on the other hand most of the vocational graduates remained unemployed after substantial time of their graduation. Thus VET system in the country remains relatively an unpopular educational option - about half of the seats in the vocational institutions of the country stay vacant. Moreover, gender disparity is prevailing in the sector; only 13% of the students in public technical and vocational training institutes are female. Further research should explore the reasons behind the lack of relevance and quality and, low participation of the female in system.

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### **Linking Life, Learning and Livelihood in Bangladesh**

*Tasneem Athar  
CAMPE, Bangladesh*

This paper is an attempt to present the existing scenario of skills development in Bangladesh as initiated by the government and the non- government sector. It is not an analytical report but a presentation of current status, challenges and possible ways to overcome the constraints.

The National Skills Development Policy 2011 is a major outcome of the TVET reform project funded by the Government of Bangladesh, the European Commission and ILO. The Ministry of Education is the line Ministry responsible for the project. The policy is aimed to guide skills development strategies and facilitate improved coordination of all elements of skills training and the parties involved. The Skills Development Policy will contribute to the implementation of other national economic, employment, and social policies so that Bangladesh can achieve its goal of attaining middle income status in 2021.

It is a major initiative to improve the coordination and delivery of skills in Bangladesh for the betterment of the nation as a whole. This policy also extends and builds on other major government policies such as the Education Policy of 2009, the Non-Formal Education Policy of 2006, the Youth Policy of 2003, the National Training Policy of 2008 and the NSDC Action Plan of 2008.

A major challenge for the skill development system is to address the needs of a huge population by providing skills to enhance employability and secure safe and decent work. Consequently, skills development for those working in the informal economy is a key strategy, one that will also create greater awareness of environmental safety and health concerns. The social partners have a major role in skills development. In particular, employers and workers are key stakeholders who work with government to develop and implement a vision for skills development.

Although the government of Bangladesh has rightly recognized Technical and Vocational Education as the need of the time, and have undertaken some major steps to implement the SDP, there is serious need for coordination among government, private sector and NGOs so that the skilled human resources emerging out of the various interventions may feed into the employment market. There is definite need for studies to look into the requirements of the global market and the quality training offered and ample opportunities for the government, private sector and NGOs to come together and make vocational education a tool for changing lives.

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**Toward China's Modern Technical and Vocational Education and Training (TVET) System: Take Shanghai as Special Experience**

*Zhang Minxuan*

*Guo Suhua*

*S N U, China*

*Ding Xiaojiong*

*SAES, China*

In the context of immense scientific, technological and socio-economic development, either in progress or envisaged, which characterizes the 21st century, particularly globalization and the revolution in information and communication technology, technical and vocational education and training (TVET) has been placed high on government agenda in China. Since the reform and open-up policy adopted over 30 years ago, the reform and development of China's TVET have

experienced historical breakthroughs. At present, China steps into a critical stage in the process of building a harmonious and well-off society in all aspects and transforming its economic development modes. Facing the new opportunities and challenges both home and abroad, China is in need of the rapid development of its TVET more than ever before. In July 2010, China held its first National Education Conference since the beginning of the new century and promulgated the “The Guideline of National Medium and Long-Term Educational Reform and Development (2010 – 2020)”. According to the Guideline, TVET has been placed in a more prominent position as the strategic priority not only for education sector but also for social and economic area; and has become a well-defined national strategy for the next decade. China’s TVET system is at a critical point for its focus in shifting from scale expansion to quality and equity improvement. The most pressing task now is to build a modern TVET system respond to market demand and featured in flexibility, diversity and coherence as a part of a system of a lifelong learning. This paper aims to provide a view on the policies, innovations as well as the key tasks of reform in building China’s modern TVET system. The innovation and research will be conducted in the following aspects:

- To motivate industries and enterprises to involve TVET and institutionalize school-enterprise cooperation mechanism. We will enhance the school-running mechanism characterized by the leadership of government, guidance of industries and participation of enterprises.
- To vigorously develop TVET in rural areas, this is placed on our top agenda. We will make our efforts to cultivate professionals and talents for the development of agriculture and rural areas. Besides, we will adopt more favorable policies and measures to better serve agriculture, rural areas and farmers in specific and practical ways.
- To make our TVET system more attractive by strengthening the policy guarantee, improving education quality and equity, expanding new areas for development and getting favorable environment, our TVET system will improve and attract more people to get involved.

- To make TVET system serving to all-round development of individuals. TVET should reflect the lifelong learning concept, and timely adjust its content and form based upon the changes of the labor market. Education quality should be elevated through innovation, so as to meet the demand of skill upgrade, job changes and career development. We need to expand the scope and coverage of TVET, and enrich formal and informal learning models.

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### **System and Current Status of Vocational Education and Training in Korea**

*Young-Ran Hong  
KEDI, South Korea*

VE in Korea begins at the high school level. VE is mainly performed by special-purpose high schools and specialized high schools. General high schools also run job-related curriculums but its importance is very limited compared to regular curriculums.

Specialized high schools are divided into job-oriented ones whose purpose is to cultivate talents in specific fields from student pools with similar talent, aptitude and abilities, and alternative ones providing experience-oriented curriculums.

Vocational high schools in Korea are the main source of specialized technicians and, as of 2010, there are 504 of them. Curriculums of vocational high schools span 6 semesters in 3 years as in general high schools, and are divided into general curriculums and job-specific curriculums. At least 50% of the job-specific curriculums have to be assigned to practical training, and all vocational high schools are running field practice programmes in cooperation with private companies.

VE at higher-education level is provided by junior colleges, industrial colleges, in-company colleges, cyber colleges, etc. The source of lifelong education and VE and T are different as the Ministry of Education, Science and Technology is in charge of the former while the Ministry of Employment and Labor is in charge of the latter. However, recently with advent of the concept of lifelong VE and T, boundary between the two is beginning to disappear. As a result, providers and programmes of VE and T are becoming highly diverse and it can be said that various VE and T institutions and programmes provided in those two fields all belong to informal types of VE and T.

Since the launch of local autonomy system in Korea, each local government has been providing

various VE and T by linking with central government projects. Evaluation, certification and management of performance of lifelong VE and T are prescribed in various laws but currently qualifications; academic credit bank system and self-education degree system are actually being administered. Qualifications, academic credit bank system and self-education degree system are related to lifelong VE and T as major evaluation and certification systems.

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## **Vocational Education and Training System in India:**

### **Policies, Facilities and Participation**

*K. Sujatha*

**NUEPA, New Delhi**

Vocational education and training are the major source of skill development in India. India has very small segmented and complex vocational education and training system with a capacity of training about 3.1 million persons per year as against 12.8 million people enter in to the workforce annually (GOI, 2009). India has very low proportion of trained people in the world (World Bank, 2006).

In India, vocational Education and training is organized through two streams – a small formal one and large informal sector. Vocational education and training system in India is versatile and fragmented, with 17 different ministries and several organizations contributing to development, planning and overall management. A number of agencies involved in providing vocational training at various levels. Among all, at national level the Ministry of Human Resource Development and Ministry of Labour play important role in extending vocational education and training facilities at school education level. The Ministries of Health and Family Welfare, Agriculture and Rural Development play significant role in vocational training though most training comes under informal sector. Unorganized private sector also has a significant share of vocational training.

The formal structure that provides vocational education and training cover (i) pre-vocational education at secondary level, (ii) vocationalisation of higher secondary education in general schools (iii) technical training in specialized institutions such as Industrial Training Institute (ITI) and Industrial Training Centers (ITC) for those completed grade 8-12.

While vocational education at higher secondary stage is a centrally sponsored scheme under the sponsorship of Ministry of Human Resource Development (MHRD), the Industrial Training Institutions and Industrial Training Centers are operated under Craftsman Training Scheme by Director General Employment Training (DGE&T) of Union Ministry of Labour.

The present paper limits its scope to deal with formal vocational education at secondary level. The first part of the paper examines vocational education policies in the context of school education. The second section presents size of vocational education in higher secondary schools and extent of coverage. The third part examines facilities for vocational training (ITIs/ITCs) in formal sector including their growth and coverage. The analysis covers all India, inter-state and rural urban scenario.

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### **Vocational Education in Uttar Pradesh:**

#### **Relevance and Scope**

*Amit Khanna*

*SIEMAT, India*

It is an admitted fact that vocational education occupies an important place in the system of school education. In pursuance of National Policy on Education, 1986, the Union Govt. started a comprehensive programme of vocational education in the country through a major financial scheme. Keeping the demand of present time in view students are joining the stream of vocational education. The demand for introducing vocational education in states went on increasing. An important feature of this scheme is that along with scholastic education enough time is given to vocational education so that practical life skills may be developed in students properly. In Uttar Pradesh the centrally sponsored scheme of vocational education was started in 1989-90 from +2 (Intermediate) level. In the first phase of this scheme, 200 schools and in the eighth phase 892 schools were covered under the scheme. Since the financial year 2003-04 the cent percent amount of expenditure on honorarium is being borne by the State Government. According to the decision of Government in the seventh phase 6 out of 16 trades which were not of much use, were deleted and only 10 useful trades have been chosen for imparting vocational education. Each selected school is imparting education of 2 trades out of these trades. During the year 2011-12 the total number of students enrolled was 73920 with a result 95.5%. The present paper critically examines the

relevance and scope of vocational education in Uttar Pradesh in the light of the priorities and focuses during the XIIth five year plan.

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**Improving Educational Relevance through the  
Development of Vocational Education in Indonesia**

*Bambang Indriyanto*

*Ministry of Education, Indonesia*

The objective of my presentation consists of two parts. The first part presents the policy context of vocational education in Indonesia. This part will discuss further of education policy themes which currently serve as basis on which vocational education programs are developed over the period of 2010 – 2014. The second part presents the programs which are being developed by the government of Indonesia. Including on this part is the discussion of research agendas providing empirical bases for the development vocational education.

During the period of 2010-2014, the theme of education policy includes availability, accessibility, quality, equality, and assurance. These policies are intended to provide good quality of education services to all school aged children non-discriminatively. Within this policy framework, the vocational education programs are developed. The development of which focus on three areas consisting of the improvement of teacher competence especially on vocational subjects matters, the provision of educational workshop which facilitates students to develop their vocational competencies, and building a linkage between vocational schools and industries.

Given these areas of development, researches on vocational education should focuses on these three areas accordingly. Research on teachers identifies what competences that teachers should have in order to keep up with the development of industries. The adequacy of equipment and facilities to support teaching-

learning in vocational schools, and the linkage between school and industries intended to identify the link and match between the vocational education programs and the needs of industries.

Globalization either through binding mechanism (such as World Trade Organization (WTO) and ASEAN Free-Trade Agreement (AFTA)); and non-binding mechanism (APEC) as well as bilateral mechanism have been an inevitable cooperation between nations. As a result all services including education, more specifically vocational education, has to respond to challenges as consequences of that. Mutual recognition of vocational schools is among most often discussed among member countries (economies) of WTO, AFTA as well as APEC. This matter should also receive proportional attentions among participant of this workshop.

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### **Vocational Education and Training: Policies, Programmers and Innovations Form Malaysian School Perspective**

*Mohd Zanal Bin Dirin  
IAB, Malaysia*

Countries in the Asian region have placed varying emphases on general and vocational education, depending upon various historical, social, economic and political considerations. While general secondary education is somewhat a common option, there is a diverse pattern of provision of vocational and technical education and training (abbreviated hereafter simply as VE and T) in many countries. In Malaysia, the government is making an effort to make vocational and technical education and training more appealing to students and employers, thus making it a more viable education option. Various government initiatives have been carried out in the quest to attract more students to pursue technical education or vocational training which in turn will benefit both current and future VE and T students. However, the VE and T curriculum provided at the school level does not always prepare the students and provide appropriate skills to meet the needs of the current job market.

In Malaysia, the perception towards VE and T is decreased and hampered by the perception that it mainly caters to the less academically-qualified and does not represent careers of choice. As a result, many



parents are reluctant to encourage their children to embark into VE and T. Transformation of VE and T in line with Malaysian Education Transformation should be able to bring back the glory during late 70's and early 80's and the government has strong policies promoting VE and T to grow further. Hence, VE and T should not only focus on knowledge and hard skills but should also emphasize on the development of communication and soft skills in order them to build more self esteem and entrepreneurship skills to increase the employability of our students. The low level of communication skills and low motivation can affect the graduates ability thus difficulties to get jobs. Although, many educationist and interested parties agree that VE and T systems often kill learners' creativity than nurture it at the same time, they argue that normal schooling is obsessed with the teaching and assessment of only certain ways of thinking, communicating, doing and behaving.

It is often argued that the Malaysian school curriculum tend to neglect imagination, intuition, emotions and the quality of mind vital for and creativity and innovation necessary for the nation's economic and social survival. In the draft of Malaysia Education Blueprint 2013 – 2025, the government believes that education can be the major contributor to the development of social and economic capital. It inspires creativity and fosters innovation which provides Malaysian youth with the necessary skills to be able to compete in the modern labour market and is a key driver of economic growth.

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### **Vocational Education: in Maldives:**

#### **Policies, Programmes and Innovations**

*Aminath Asra*

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Education is essential for economic and social development of a country. Having a well-trained, motivated and adaptable workforce is the key to the national development. Hence, an effective employment and skills development strategies are vital.

Maldives is geographically a unique country with a total of about 300,000 people dispersed over 196 scattered islands where the travelling is relatively expensive and job opportunities are limited within the

island. In such settings implementation of an effective training programme linked with employment is a real challenge.

The education process is usually seen as a continuing school based experience starting with children of 5 or 6 years of age and completing at 21 to 25, with University degrees at various levels. The objective of each level is to meet the entry requirements of the next level up. Standards of the education are set by the system itself. Such a system does not necessarily meet the needs of either employer for a skilled workforce or the majority of young people for decent jobs. It is estimated that there are about 10,000 school leavers from Grades / Year 10 and 12 combined by 2012. Already we have 20,000 unemployed youth. Vocational Education and Training introduced during the 1970s, had no major reform until restructure took place in 2004.

The Government of Maldives, concerned with rising youth unemployment, particularly in regions outside Malè, led to the initiation of Employment Skills Training Project (ESTP) delivered in collaboration with Asian Development Bank (ADB) to increase the number of Maldivian, men and women, actively participating in the labour force and employment. With the referred project, skills training area was reformed and restructured that led to the establishment of current TVET system in the Maldives.

One major concern of the Government is to ensure a TVET system that is relevant and accessible while addressing issues of quality. As a result the system got enhanced with the establishment of TVET Authority in 2011 to support and promote TVET system in the Maldives. The project is designed specifically for youth, aged 16 to 34, and adults previously unable to continue their education and training. The project aims to train about 5,000 youth within a year, at least 40% of whom will be female. The goal of the project is to increase the number of Maldivian men and women with entry-level occupational qualifications and skills for employment or for self-sustaining livelihood initiatives.

Using the revised Maldives National Qualification Framework (MNQF), curriculum is developed with competencies and National Standards are developed; and the skills required to qualify MNQF Levels are embedded into the training / courses. Thus, graduates of this programme are not only receiving sector accepted training, but also qualify as a skilled worker who possesses a National Certificate.

The current skills training program has made youth and other stakeholders more aware of the system and demand for TVET programs are increasing. However, there are limited TVET institutions in the existing educational framework of the Maldives, hence; we have no systematic way to train these unemployed

youth for employability skills and the meet the national demand. Therefore, a consistent and effective TVET management system is required to achieve this goal.

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## **Technical and Vocational Education and Training in Nepal**

*Hari Prasad Upadhyaya*

*CERID, Nepal*

In Nepal, the systematic effort for the development of education started only after the advent of democracy in the country in 1951. Since then, several committees and commissions were formed for suggesting the reforms in education.

TVET was started in Nepal after the establishment of an Ayurvedic school to train Ayurvedic physicians in 1929. Since then, the government has been involved in conducting several kinds of technical and vocational education programs. As a result of the government intervention Different institutions have been established and technical knowledge and skills have been provided. In past efforts were made to attach vocation education to general education from grade 6 to 10 with the purpose to impart vocational knowledge and transfer technical skills to the students of grade 6 to 10. The New Education System Plan (NESP) was introduced in 1971 that provisioned vocational education in every secondary school throughout the country. This plan could not produce skilled human resources at desired level. Hence the concept of trade school for imparting employable skills with promoting rural development was introduced and the first technical school, Karnali Technical School, was established. Since then, TVET has been delivering through trade schools. CTEVT has been entrusted responsibility for the management, implementation and coordination of TVET in the country.

At present, the major policy thrust of TVET is the expansion of training opportunities, inclusion of and access of training to all citizens who need training, integration of various training modes and training providers into one system, linking training contents and outcomes of the training with market demands, and sustainable funding for TVET. TVET policy is part of education reform endeavour of the country, and the policy intends to alleviate poverty.

TVET policy stresses the needs of the vocational pathways, but approved and widely accepted National Technical and Vocational Qualifications don't exist in Nepal. If students wish to progress from a TVET course to a general academic course, they have to take an entrance examination. Involvement of private sectors in the areas like curriculum design, internship offered to students, assessment and certification, apprenticeship training, developing labour market information system, etc. is limited. Insufficient attention is given to developing a reliable labour market information system, a standard training needs assessment system, linkages with business and industries, and employment services.

Based on the experiences of TVET implementation in the country, this paper suggests that a national TEVT policy framework that ensures TEVT quality assurance, enhanced linkages among skill development, education and the world of vocational pathways through the qualification ladder, career guidance and post-training support services, and increased access and equity needs to be developed. Moreover, enterprise based training needs to be enhanced and along with quality improvement attempts. A participatory financing system of TEVT needs to be institutionalized by mobilizing the resources of public, private and other sectors. And mobilization of CLCs is essential for addressing the objectives of life skill learning.

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## **Reforms in Secondary Education and Its Implication to Technical, Vocational Education and Training in Philippines**

*Sharon Joy Berlin Chao*  
*SEAMEO- INNOTECH, Philippines*

The Philippines is the only country in Southeast Asia and one of the only three countries in the world with a ten-year basic education program prior to entry to the university.

Last June 2012, the Philippine Government through its Department of Education (DepEd) embarked on a key education reform by adding two more years to the existing four-year high school program. This radical shift effectively extends basic education from ten years to 12 years in the country.

The main intention of the K to 12 basic education curriculum particularly at the high school level is to prepare students with life skills that they can learn while in school. The revised curriculum will enable students to acquire Certificates of Competency (COCs) and National Certification (NCs) issued by the Technical Education and Skills Development Authority (TESDA). These NCs signify that K to 12 graduates have acquired middle level skills and will have better opportunities for gainful employment. The additional years also ensures that K to 12 graduates is better prepared for college.

As envisioned K to 12 Education Program offers career pathways or optional courses that students select from a number of choices. It offers opportunities for specialization in academic, technical-vocational, and entrepreneurship. At Grades 7 and 8, students will study exploratory subjects by taking four technology and Livelihood education courses for each grade. At Grade 9 and 10, TLE specializations are offered, then at Grades 11 and 12 career pathways or specializations are offered. Career pathways lead to eligibility for Certificate of competency (COC), which TESDA issues to individuals who satisfactorily demonstrate competence on a particular or cluster of units of competency. The COC leads to certification beginning with NC 1 which indicates the performance of a routine and predictable tasks, requiring little judgment and supervision, and NC 2, the performance of a prescribed range of functions.

Early on, there's a need to look into the implications of the K to 12 Reform and the existing Philippine Technical Vocational Education and Training (TVET) system. Off-hand the following issues are potential areas for action research and policy inquiry:

1. Question regarding articulation between the Junior and senior high school with TVET system.
2. What existing local models on high school TVET articulation are successful and can serve as learning framework for education managers?
3. What does a competency-based, labor market driven and assessment based qualification look like for learners who have completed Junior and Senior High Schools?
4. What is the implication of the K to 12 reforms to the national system for the development, recognition and award of qualifications based on standards of knowledge, skills and values acquired?
5. Not only is the basic education changing, TVET system itself is changing in many ways (decentralized, lifelong learning strategies, nationwide curricula development, students needs prioritized) to meet the needs of changing economies (free-market, global competition, etc).

These changes require greater flexibility and rapid organizational response on the part of the DepEd and TESDA. Are they organizationally ready for this?

6. What technical and financial investments are necessary to build the capacity of technical vocational high school teachers and administrators? The same goes with developing the TVE equipment and workshops of schools.
7. What alternative learning response can be generated given resource limitation?

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### **Vocational Education and Training System in Sri Lanka**

*Nihal Tissa Kumara Lokuliyana*

*NIE, Sri Lanka*

As evident in the surviving monastic and royal monuments as well as the extended irrigation network, ancient Sri Lanka claimed a skill base of a very high level, which was supposedly sustained through family based apprenticeship system.

The beginning of an institutional form of skills training may be traced back to the mid 18th century, when industrial schools were set up by the missionary societies in order to provide craft and agricultural training for children from poor families. However, industrial schools soon became unsustainable and withered away for want of funds and government and societal support. Institutional forms of skills training re-emerged in the form of technical schools under government sponsorship, with the establishment of the first technical school in November 1893, in Maradana, Colombo. The two decades after independence saw the first phase of expansion of institutionalized training in the hands of the government, seen as a response to the skills requirements of various government agencies created for industrial, agricultural and social infrastructure developmental purposes.

Vocational education and training in Sri Lanka is managed by the Tertiary and Vocational Education Commission of the Ministry of Vocational and Technical Training. Training includes course based curriculum at vocational technical training centres and apprenticeship at private or public organizations. Higher education in vocational fields could be archived through several universities. The National

Vocational Qualifications Systems in Sri Lanka (NVQSL) provides a structured seven levels of qualifications from Level 1 to Level 7. Vocational education and training is carried out for degree level at the Open University, Sri Lanka and the University of Vocational Technology, as well as at diploma level at 37 technical colleges, Sri Lanka Institute of Advanced Technical Education and the Sri Lanka School of Agriculture.

Apart from these, the Ministry of Education has launched a non-formal vocational education program which allows school drop-outs and adults who did not complete their school education, to earn a living, through self-employment. Most of these courses are held at community centres and they cover a wide range of fields such as dressmaking, beauty culture, hairdressing, stitching, carpentry, plumbing, painting and so on.

Industry based training is apprenticeship. Apprenticeship is recognized in Sri Lanka Labour Market or Industry, and Employee Provident Fund Act of 1958 has outlined the provident fund right of the apprentices. However, when an apprentice acquires skill though working in the industry without a curriculum, it is called informal apprenticeship. The Government has taken action to formalize the informal apprenticeship by establishing the National Apprenticeship Board in 1971 which was later restructured as the National Apprenticeship and Industrial Training Authority (NAITA). Total annual training of public Institutional training system is about 60,000 and large majority still acquire the skill through working in the industry.

In 2005, the Ministry of Vocational and Technical Training (MVTT) introduced the National Vocational Qualifications (NVQ) framework which was an important milestone for the education, economic and social development of Sri Lanka.

## **ANNEXURE I: PROGRAMME SCHEDULE**



**Monday, 5 November, 2012**

0915-1000 hrs	<b>Registration of participants</b>	
<b>Workshop Opening</b>		
1000-1130 hrs	<p><b>Inaugural Session</b></p> <ul style="list-style-type: none"> <li>• Welcoming speech by Prof. R. Govinda, Vice Chancellor, NUEPA and ANTRIEP President</li> <li>• Address by Mr. Shigeru Aoyagi, Director, UNESCO Cluster Office, New Delhi</li> <li>• Statement by Ms. Suzanne Grant Lewis Deputy Director, IIEP, Paris</li> <li>• Keynote speech by Prof A K Sharma, Former Director, National Council of Educational Research and Training (NCERT), New Delhi 110016</li> <li>• Vote of thanks by Prof. K. Sujatha</li> </ul>	<b>Plenary session</b>
1130-1200 hrs	<b>Tea Break</b>	
1200-1230 hrs	Introduction to the workshop theme and program <i>K. Sujatha</i>	
1230-1315 hrs	<p>Vocational Education and Training: Policies, Programmes and Innovations from Malaysian School Perspective</p> <p style="text-align: center;"><i>Mohd Zanal Bin Dirib</i></p> <p>Technical, and Vocational Education and Training in Nepal</p> <p style="text-align: center;"><i>Hari Prasad Upadhyaya</i></p>	<b>Plenary session</b>
1315-1400 hrs	<b>Lunch Break</b>	
1400-1530 hrs	<p>Vocational Education and Training in Bhutan: Policies, Programmes and Innovations</p> <p style="text-align: center;"><i>Bahadur Tamang</i></p>	<b>Plenary session</b>

	<p>Facing the Challenges of Core Skills in Vocational Education in Australia</p> <p style="text-align: right;"><i>David Tout</i></p> <p>Vocational Education and training in Maldives</p> <p style="text-align: right;"><i>Aminath Asra</i></p> <p>Vocational Education in Uttar Pradesh: Relevance and Scope</p> <p style="text-align: right;"><i>Amit Khanna</i></p>	
1530-1600 hrs	<b>Tea Break</b>	
1600-1730 hrs	<p>Some Implications of the Secondary Education Reform To Philippine TVET</p> <p style="text-align: right;"><i>Sharon Joy Berlin Chao</i></p> <p>Vocational Education and Training in Sri Lanka: Policies, Programmes and Innovations</p> <p style="text-align: right;"><i>N. T. K. Lokuliyana</i></p> <p>Linking Life, Learning And Livelihood In Bangladesh</p> <p style="text-align: right;"><i>Tasneem Athar</i> <i>M Mahbubul Kabir</i></p> <p>Vocational Education in Pakistan</p> <p style="text-align: right;"><i>Tahir Taj</i></p>	<b>Plenary session</b>

**Tuesday, 6 November, 2012**

0900- 0945 hrs	System and Current Status of VE and T in Korea <i>Young Ran Hong</i> Development of Vocational Education in Indonesia <i>Bambang Indriyanto</i>	<b>Plenary session</b>
0945-1100 hrs	IIEP Policy Forum on Engaging Youth in Planning <i>Suzanne Grant Lewis</i> UNESCO TVT Strategy (2010-2015) research, policy experience, international dialogue and partnership <i>Alisher Umarov</i> Statistics on Vocational Education <i>Shalendra Sigdel</i>	<b>Plenary session</b>
1100-1130 hrs	Tea Break	
1130-1300 hrs	Panel Discussion on Vocational Education and Training in India: Policies, Programmes and Innovations  Panelists: <i>Prof. Santosh Mehrotra</i> <i>Sitonshu.S. Jena</i> <i>Bhavana Chuhan</i> Chairperson: <i>Prof. Santosh Mehrotra</i>	<b>Plenary session</b>
1300hrs	<b>Lunch Break</b>	
1400-1700 hrs	<b>Cultural Visit</b>	
1900 hrs	<i>Dinner hosted by Vice-Chancellor, NUEPA</i> <i>Venue: India Habitat Centre</i>	

**Wednesday, 7 November, 2012**

0900 -1000 hrs	Discussion on Priority Areas for Research on Vocational Education	<b>Plenary session</b>
1000-1100 hrs	Group work to identify research themes	<b>Group work</b>
1100 - 1130 hrs	Tea Break	
1130-1300 hrs.	Special Address <b>Mr. S. Ramadorai</b> Advisor to Prime Minister on Vocational Education and Skill Development Chair: <b>Prof. R. Govinda</b>	<b>Plenary session</b>
1300-1400 hrs.	Lunch Break	
1400-1630 hrs.	Group work Cont.	<b>Group work</b>
1630-1730 hrs.	Presentation and Discussion on Group work	

**Thursday, 8 November, 2012**

0900 -1100 hrs	Discussion on research methodology and modalities to launch the project	<b>Group work</b>
1100 – 1130 hrs	Tea Break	
1130-1230 hrs	Presentation and discussion of framework for research proposals	<b>Plenary session</b>
1230-1330 hrs	<b>Valediction</b>  <i>Ms. Radha Chauhan</i> Joint Secretary Department of School Education MHRD, Government of India	

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