

**Greening TVET**

## Advancing Vocational Education & Training In India

**Innovation and Learning Practice****Bridging Innovation and Learning in TVET (BILT) Project****Submitted by Pandit Sunderlal Sharma Central Institute of Vocational Education,  
India**

An initiative in India aims to enhance the status of TVET as a method for preparing the country's youth for the future world of work. With a focus on sustainability, the initiative identifies in-demand green skills as crucial for employability and determines how these skills can be implemented in TVET programmes across the education system.

Start date: May 2017

Type of implementing institution: National body

Target group: Secondary schools with integrated TVET programmes across India

## **PSS Central Institute of Vocational Education, India**

**The Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) is an apex research and development organization in vocational education. It is a constituent unit of the National Council of Educational Research and Training established by the Indian Ministry of Education in 1993 in Bhopal.**

## **Description of activities**

India is on the brink of becoming the world's youngest country: more than 62 per cent of its population is in the working-age group (15-59 years old) and more than 54 per cent of its total population is under 25 years of age. This presents an enormous opportunity and a formidable challenge.

At this historic juncture, India has recognized the potential economic benefits of preparing its youth for the labour market of the green economy. The new initiative from PSSCIVE on advancing vocational education aims to enhance the status of vocational education in India as a first-choice option for preparing the country's secondary school-aged youth for the future. It focuses on offering quality vocational education, and emphasizes the integration of green skills and innovative green technologies in TVET curricula for various emerging occupations/professions. The initiative also contributes to the identification of skills sought by the industrial sector that contribute to sustainability.

## **Relevance**

### **Why is an 'image boost' necessary for TVET in India?**

Traditionally, vocational education and general education have not been on equal footing in India. The reputation of vocational education has been negatively impacted by poor quality and relevance of training, skills mismatch, limited involvement of social partners, limited access to training opportunities and weak coordination in the system. The PSSCIVE initiative sets priorities, develops curricula, prepares digital resources and establishes clear paths to employment in India's emerging green economy in the interest of increasing the role, relevance and attractiveness of TVET.

### **The initiative emphasizes greening in TVET for secondary school students – why this age group in particular?**

Providing young people with learning and employment opportunities for a prospective career is part of a modern, high-quality and prospective TVET system that supports an emerging green economy. TVET programmes emphasizing green competencies that are introduced during secondary school education can foster deeper alignment with future industry needs and a fundamental understanding of sustainability issues. In addition, the availability of several choices in vocational studies enhances social inclusion for the rest of a young person's life with green competencies that are relevant in many contexts.

### **How have national policy priorities shaped the initiative?**

The Indian government has given key priority to TVET by formulating the National Policy for Skills Development & Entrepreneurship (2015) and the National Education Policy 2020 to bring more structure to long-term efforts. The goal is to create an education system that contributes directly to a sustainable transformation of India into an equitable and vibrant knowledge society. This is especially desirable given the multidisciplinary nature of the sustainable development agenda. The formation of high-level sector skills councils, which are charged with coordinating and implementing the skills agenda alongside key ministries, forms a basis for knowledge creation and innovation. This represents excellent progress in India.

## **Added value**

### **What is the biggest change in TVET brought about by the initiative?**

Employability skills for green jobs are being included for the first time as an integrated component of the vocational education and training system in India's Class IX to XII (15-19 years old). In addition to greening, the initiative includes four additional major skills components: communication, information and communication technology, self-management and entrepreneurship. These skills components within vocational courses are currently being offered for 152 job roles in 17 job sectors as per the National Skills Qualification Framework in India. Curricula are based on learning outcomes that draw upon occupational standards, including a public-private implementation partnership in the recruitment and capacity building of vocational teachers, and training, assessment, and certification of students.

### **How has the initiative been set up to provide long-term benefits?**

India has recognized that a well-defined national skills development policy is vital for sustainable and balanced growth. Most significantly, it is providing guidance and

focus to the skill system for the changing world of work and the needs of the green economy. The initiative has brought coherence to the skills ecosystem, facilitating coordinated reforms and strengthening institutional arrangements. The initiative also works towards changing mindsets to reflect the impact of knowledge, skills and attitudes on environmental, economic and social development issues.

### How has scaling the initiative been addressed in a country as large as India?

National policy has demonstrated the need to scale TVET advancement in India at speed while maintaining quality standards and sustainability. With solid policy backing, the initiative has been implemented in more than 13,000 schools benefiting more than 1.3 million students (boys and girls) from 27 states and union territories across India. In the near future, it will expand vocational education to the remaining schools in all 36 states and union territories. The goal is to expose at least 50 per cent of learners to vocational education through school and higher education by 2025.

## Transferability

### Are there takeaways for countries with smaller-scale TVET systems?

The biggest challenge for a smaller country would be replicating the scale of India's school educational reforms that emphasize TVET. However, the key element with the most potential for replication and adaption in different settings is the inclusion of green employability skills and competencies in addition to job-related knowledge of sustainability in qualification standards (PSSCIVE focuses on **two-year** programmes). Using a **standard vocational pedagogy framework** in preparing vocational teachers is equally workable. This also requires close interaction among stakeholders to build a skills ecosystem where skills development goes hand in hand with economic, technological and social change.

### How is the initiative transferable to a country that lacks India's resources?

For the initiative to be effective, PSSCIVE supports the development of learning outcome-based curricula, quality vocational textbooks, digital content, video on demand and capacity building for vocational teachers on vocational pedagogy (including upskilling of teachers in domain knowledge and orientation of key functionaries). All learning-outcome-based curricula, students' textbooks, and digital content including video-on-demand (VOD) are available for free for registered users on the **institute's website**. PSSCIVE's units on green skills are also available online (**Class 9, Class 10, Class 11, Class 12**).

**PSSCIVE's Advancing Vocational Education & Training in India initiative is one of the BILT project's Innovation and Learning Practices that address systemic challenges within the five work streams of the project. Specifically, the PSSCIVE initiative addresses greening TVET:**



### Greening TVET

*Responding to new development paradigms for sustainability and reduced environmental impact*

Additional Innovation and Learning Practices cover the following areas:



**New Qualifications and Competencies**



**Entrepreneurship in TVET**



**Digitalization in TVET**



**Migration and TVET**

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## About the BILT Project

UNESCO-UNEVOC's Bridging Innovation and Learning in TVET (BILT) project is a reference point for innovation and learning in TVET. It utilizes the international UNEVOC Network to create opportunities for collaboration and a platform for bridging innovation and learning between Europe, Africa and the Asia-Pacific region. BILT complements developments at the national level in supporting innovative, market-oriented and attractive modes of learning and cooperation in TVET.

The BILT project explores the process of identifying, integrating and implementing new qualifications and competencies in TVET. This is known as the 'three I's process'. In addition to the broad focus on new qualifications and competencies, BILT addresses four complementary themes: Digitalization and TVET, Greening TVET, Entrepreneurship in TVET, and Migration and TVET.

For more information, please visit  
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## New Qualifications and Competencies in TVET

How can they be put into practice, ensuring future-oriented, attractive TVET career paths?

- **Identification** through suitable approaches and instruments;
- **Integration** into curricula and training regulations; and
- **Implementation** in teaching and training approaches

## Entrepreneurship in TVET

Unlocking the potential of innovative entrepreneurial activities and fostering entrepreneurial culture

## Greening TVET

Responding to new development paradigms for sustainability and reduced environmental impact

## Digitalization in TVET

Providing response to new skills demands, as technology has permeated the world of work and is changing the profile of jobs

## Migration and TVET

Accelerating the integration of migrants into their host communities, and allowing them to become productive members of the workforce

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