

Greening Technical Vocational Education and Training and Skills Development for the World of Work

Technical and vocational education and training (TVET) is the strategic entry point for ensuring a world of work that contributes to social cohesion and promotes environmentally sound sustainable development.

TVET and skills development initiatives play a significant role not only in developing human and social capital, but also in promoting necessary skills, knowledge and expertise needed for more sustainable societies and greener economies.



The transition to green economies and sustainable societies requires policy makers, employers and workers, economic, social and environmental actors, educational and training institutions and individual citizens to make the right choices. The shift to low-carbon economies requires not only new regulation, investment and institutional frameworks, but also TVET to engage more systemically in response to the changing job opportunities and skills needs that a green development agenda brings about.

The green transition will bring new employment opportunities but will also alter existing jobs. In order to avoid high social costs and, at the same time, to tap the employment potential of green jobs, TVET needs to anticipate and respond to skill changes needed for successful careers in low-carbon economies. TVET systems need to prepare their learners for being responsible and well informed producers and consumers, and for being able to act competently, creatively and as agents for sustainability in their workplaces and in society at large.

Investment in TVET and skills development initiatives needed for the green transition enhances environmental awareness, competency, innovation and entrepreneurship, and thus opens new market opportunities for environmental goods and services, promotes green innovation and green growth, and puts our world on a more sustainable development path.

Interagency Cooperation for Greening TVET and Skills Development

The Interagency Working Group brings together expertise from a wide range of international organizations working in the field of TVET, skills development and the green transformation of the society and economy.

The Working Group is convinced that a collaborative effort is required for meeting the challenges involved in greening TVET and skills development.

The Working Group advocates international partnership and cooperation for promoting the necessary capacities in TVET and skills development for allowing a rapid and equitable shift to greener economies and more sustainable societies.

The Working Group supports initiatives for greening TVET and skills development by raising awareness, providing advocacy, sharing and disseminating good practices, knowledge and expertise, and works under the umbrella of the Interagency Group on TVET.



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Greening Technical Vocational Education and Training (TVET) and Skills Development

Challenges and Opportunities



Interagency Working Group's Initiatives



The European Training Foundation (ETF): Skills for Green Jobs and Sustainable Development in Partner Countries

The ETF is a European Union agency and assists its 31 partner countries in developing their vocational education and training systems. The ETF helps partner countries to highlight the important role of vocational education and training for sustainable development and to support activities towards the systemic integration of sustainable development issues in education policies and practices. For meeting the demands of sustainable development, responding to the challenges of climate change and for using the opportunities contained in the transformation to low-carbon economies the ETF provides support in the following areas:

- » Promotion of competences for sustainable development:
- » Provision of methods of identification, forecasting and provision of skills for green jobs:
- » Supporting vocational schools in becoming agents for local sustainable development:
- » Capacity building and policy learning in greening VET through indicators.

For more information: www.etf.europa.eu

The European Centre for the Development of Vocational Training (Cedefop): Contribution to a more Resource-efficient and Sustainable Europe

Cedefop is helping the European Commission, the EU Member States and the social partners to identify present and future skill needs and skill mismatches so that they can develop the right VET policies for Europe. This includes investigating the skills needed for the transition to a more resource-efficient and sustainable economy. Cedefop does this by analysing the expected impact of environmental and climate change policies on the future demand for skills in and across sectors, in this way providing insights that will contribute to effective training and education policies. Key projects in this area are:



- » Skills for Green Jobs: European Report (2010-11);
- » Green Skills and Environmental Awareness in VET (2012);
- » Skills for a Low Carbon Europe (2012-13).

For more information: www.cedefop.europa.eu

Asian Development Bank (ADB): Education and Skills for Inclusive Growth and Green Jobs

ADB is committed to support its Developing Member Countries achieve higher, sustainable and inclusive growth. The ADB's 'Education by 2020 – a Sector Operations Plan', seeks to promote new and innovative approaches to improving the quality and relevance of education, particularly in the context of employability and jobs..

ADB will implement a research and development technical assistance project from 2012-14 to strengthen the readiness of education and training institutions to respond effectively to green growth strategies and implementation of climate change commitments. The project will cover India, Indonesia, Sri Lanka and Viet Nam and will lead to improved knowledge and enhanced capacity in developing countries to create an adequate skills base to serve green jobs. It will help to assess the demand for skills and training for green occupations in selected industries and lead to recommendations for policy and strategy options for governments to strengthen skills training systems.

For more information: www.adb.org



International Labour Organization (ILO): Anticipation and development of skills for green jobs

The ILO is a specialized UN agency which promotes decent work for all women and men. It supports skills anticipation and development to facilitate the transition to a green economy and to seize the employment potential that the transition entails. The ILO has built a large body of research to inform tripartite decision-making and provides policy advice, methodological guidance and technical assistance in skills identification and provision to effectively deal with the coming structural change and transformation of existing jobs. The ILO has produced the following outputs:

- » Skills for Green Jobs: A Global View;
- » Skills and Occupational Needs in Renewable Energy;
- » Skills and Occupational Needs in Green Building;
- » Comparative Analysis of Methods of Identification of Skills Needs on the Labour Market in Transition to the Low Carbon Economy;
- » Policy brief "Greening the Global Economy: The Skills Challenge" and several research briefs.

For more information: www.ilo.org/skills and www.ilo.org/greenjobs



Organisation for Economic Co-operation and Development (OECD): Green Growth Strategy

The OECD provides a forum in which governments can work together to share experiences and seek solutions to common problems. The OECD Green Growth Strategy provides recommendations to help governments to identify the policies that can help achieve the most efficient shift to greener growth. Work on greening jobs and skills aims to help strengthen initial education and vocational training, support a smooth reallocation of workers from declining to growing sectors and minimise skill bottlenecks. Key work:

- » Measuring the local potential of Green Growth;
- » OECD-CEDEFOP Forum on Green Skills;
- » Improving the effectiveness of green local development initiatives;
- » Greening Jobs and Skills: Labour Market Implications of Addressing Climate Change.

For more information: www.oecd.org/greengrowth/jobsandskills



UNESCO-UNEVOC: Promoting learning for the world of work

The UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training (TVET) assists UNESCO Member States strengthen and upgrade their TVET systems. It is UNESCO's specialized Centre for TVET and the hub of a worldwide Network of TVET institutions, the UNEVOC Network. In the light of the United Nations Decade of Education for Sustainable Development, UNESCO-UNEVOC places an emphasis on integrating education for sustainable development into TVET through its programme activities and publications. UNESCO-UNEVOC supports national, regional and international initiatives in implementing the greening TVET agenda and advocates for and mobilizes multilateral and bilateral support to greening TVET. Through the Network of over 280 UNEVOC Centres worldwide, UNESCO-UNEVOC:

- » promotes and supports better accessibility to and quality of TVET for the achievement of Education for All,
- » supports the transformation of TVET towards sustainable development, and
- » strengthens the capacity of the global UNEVOC Network to integrate and implement education for sustainable development.

For more information: www.unevoc.unesco.org

United Nations Economic Commission for Europe (UNECE): Strategy for Education for Sustainable Development

In 2005 Ministers of Environment and Education adopted the UNECE Strategy for ESD. The Strategy is a practical tool that supports the UNECE Member States to incorporate key themes of sustainable development in all forms of education. The Strategy constitutes the regional implementation pillar of the UN Decade on ESD and is implemented in close cooperation with UNESCO. At its 7th meeting, the Steering Committee of the UNECE Strategy for ESD underscored that Reorienting TVET to be in support of sustainable development and transitioning to green economies is a priority action area for implementation phase III (2011 – 2015). The Strategy promotes the reorientation of TVET by:

- » supporting capacity building activities, in particular as regards educator competences in ESD;
- » ensuring that adequate tools and materials for ESD are accessible;
- » strengthening cooperation on ESD at all levels within the UNECE region.

For more information: www.unece.org



United Nations Institute for Training and Research (UNITAR): Investing in People and Learning

UNITAR conducts research on knowledge systems and delivers innovative training to increase the capacity of its beneficiaries to respond to constantly evolving global challenges. UNITAR contributions in the area of green learning and skills development include hosting the Secretariat of UN CC: Learn, and delivering e-learning courses on the Green Economy, together with the United Nations Environment Programme (UNEP). UN CC: Learn is a One UN Initiative of 32 multi-lateral partners which supports Member States in designing and implementing results-based and sustainable learning to address climate change, including TVET. UN CC: Learn has three Programme Areas:

- » Knowledge-Sharing and Management;
- » Development of a One UN Training Package on Climate Change;
- » Country Pilot Projects to Strengthen Human Resources and Skills to Advance Green, Low Emission and Climate Resilient Development.

For more information: www.unitar.org and www.uncclearn.org

