



Greening TVET in the context of climate change policy developments

Virtual Conference on the UNEVOC e-forum
2 to 13 November 2015

Nick Sofroniou

Principal Research Fellow at Institute for Employment Research of the University of Warwick

Introduction

Global climate presents many challenges on the road to sustainable development. Responses to climate change require a transition to greener economies. This will impact on certain sectors of the economy by changing the nature of occupations and increasing the demand for new skills (Cedefop [2010](#), [2013](#); European Commission [2011](#), Strietska-Illina *et al* [2011](#)). A shortage of skills entailing bottlenecks act as obstacles to this transition as the cost of climate change mitigation and adaptation increases. This transition from high-to-low carbon intensive production will involve a redistribution of labour. Industries may need government support to efficiently adapt to these changes, while policy-makers and educationalists will need to ensure that skills and training are aligned with these coming changes in the employment landscape. The recent [Kuala Lumpur Declaration](#) on Quality Education and Skills Development for Sustainable Future, August 2015, aimed at Asia-Pacific Member States, includes recommendations for the integration of greening skills for sustainable development into TVET programmes. UNESCO-UNEVOC is currently prototyping approaches to the topping up of skills in TVET curricula and drafting a document *Greening TVET: a practical guide for institutions* building on earlier work such as Majumdar ([2011](#)).

Key challenges for green employment have been identified by the Inter-Agency Working Group on Greening Technical and Vocational Education and Training and Skills Development ([January, 2013](#)) which presented a set of policy recommendations, responding to the request from the G20 Development Working Group on the Human Resources Development Pillar. The recommendations refer to measures to be undertaken in education, training, employment and policy-making. There is a need for effective policy coordination and social dialogue, which will engage individuals, companies and institutions to take initiative. Greening TVET is a key point to be included in education and sustainable development agendas. Further, training should be accessible to all and has to become a priority for vulnerable and disabled people.

The second OECD-LEED Cedefop *Green Skills Forum 2014* (Cedefop, OECD [2015](#)) presented new research developments, tools, strategies and the areas of skills development and training for a greener economy. The forum provided an open space for discussion between researchers, policy makers, experts in innovation, employability and skill development with the aim of informing about future work on the transition of labour markets to greener employment growth. Examples of the integration of low carbon and inclusive employment were presented and the role of

training in greening the economy and the potential of the public and private sectors were also discussed.

The UNESCO (2014) Roadmap for implementing the Global Action Programme on Education for Sustainable Development places special emphasis on groups that are particularly vulnerable to the impacts of climate change and development which is unsustainable. These groups include both individuals such as girls and women facing persistent exclusion and inequality, as well as countries that will be hardest hit by climate change such as the Small Island Developing States and the continent of Africa experiencing rising sea levels and climate extremes such as droughts and desertification that impact on the livelihoods and well being of their citizens. While discussions concerning the greening of occupations often focus on high-skilled, well paid jobs such as in the industries of renewables, energy efficiency and mass transit, in practice many green jobs include farmers and lower skilled workers as well as eco-tourism and waste management. These include small and micro-businesses benefiting from entrepreneurial skills. Policies targeting disadvantage groups can address policy reduction objectives as well as sustainable development goals.

The UN climate Conference of Parties (COP21) currently includes Pledges from 154 countries' National Climate Change Plans yielding expected global temperature at 2.5 to 3 °C above pre-industrial levels by the year 2100. These Pledges are to be reviewed after 5 years. This may be considered good news because of the commitments being made to limiting emissions to 4Gtonnes CO₂ (by 2030). It marks a move away from the "business as usual" scenario sending a strong signal potentially yielding a virtuous circle in which technology change, capital shift and policy advance together. However, the expected global temperature corresponding to these Pledges is above 2 °C ceiling thought necessary to avoid the most serious consequences of global warming so further economic and societal adaptation will be required to reach this level (see also Eurostat, 2015 which considers EU targets and indicators in their wider global context).

The United Nations Summit in September 2015 adopted the post-2015 development agenda on Sustainable Development Goals (SDG) for the next 15 years with SDG4 focussing on the education 2030 agenda. This includes TVET skills for employment, decent jobs and entrepreneurship for youth and adults as an important sub-target. This will entail a transformation of the TVET sector both in reaching SDG4 and the wider goals of sustainable economies and society.

The Virtual Conference will consider global frameworks and agreements of the UN Summit 2015 in New York and to be made at COP21 in Paris as they challenge TVET to expand quality skills provision and to ensure skills relevance not only for the world of work, but also to support lifelong learning, inclusion and low-carbon transitions of economies and societies.

Main questions for discussion

- What is the Role of TVET in the transition to low-carbon economies and in a changing climate?
- How can the Greening of TVET institutions maximize their contribution to sustainable societies?
- In what way can TVET best meet the needs of vulnerable groups/Member States in the context of climate change?

Structure of the discussion

In the introductory phase, the aim is for participants to share their knowledge, insights, expectations and concerns to highlight the relevance of TVET in the context of policy to address climate change in the post-2015 development agenda.

During the second phase, sub-discussions will consider the remaining questions, including the Greening of TVET institutions and ensuring TVET addresses the needs of vulnerable groups and Member States as they remain at increased risk from climate change. Here, the participants will be encouraged to discuss practices, research, case-studies and innovations they introduce or are aware of.

In the final phase we will move to summarising the key ideas and suggestions in relation to international developments in a final discussion with the aim of informing TVET stakeholders, considering the community response and identifying critical challenges and ways forward.

About the Moderator

The virtual conference will be moderated by Dr Nick Sofroniou, Principal Research Fellow at Institute for Employment Research of the University of Warwick and an expert in green skills development. Nick has significant experience in policy-relevant research and analysis on education, training and skills and has worked as an expert in socio-economic research and analysis at Cedefop, the European Union agency for the development of vocational education and training (VET). During that time, he also represented the EU on the Interagency Working Group on Greening TVET.



References

- Cedefop ([2010](#)): *Skills for green jobs: European Synthesis Report*, Luxembourg: Publications Office of the European Union.
- Cedefop ([2013](#)): *Skills for a Low-Carbon Europe: The Role of VET in a Sustainable Energy Scenario*, Research Paper No. 34, Thessaloniki: Cedefop
- Cedefop; OECD ([2015](#)). *Green skills and innovation for inclusive growth*. Luxembourg: Publications Office of the European Union. Cedefop reference series.
- European Commission ([2011](#)): *A Roadmap for moving to a competitive low carbon economy in 2050*, COM/2011/112.
- Eurostat ([2015](#)) *Sustainable development in the European Union: 2015 monitoring report of the EU Sustainable Development Strategy*. Luxembourg: Publications Office of the European Union.

Inter-Agency Working Group on Greening Technical and Vocational Education and Training and Skills Development ([January 2013](#)): *Set of policy recommendations to meet skills needs for green jobs, prepared on the request of G20 Development Working Group (DWG) Human Resource Development Pillar*

Majumdar, S. ([2011](#)) *Developing a Greening TVET Framework*. Bonn: UNESCO-UNEVOC.

Strietska-Ilina, O., Hofmann, C., Haro, M. D., and Jeon, S. ([2011](#)): *Skills for Green Jobs – A Global View*.

UNESCO ([2014](#)) *Roadmap for implementing the Global Action Programme on Education for Sustainable Development*. France: UNESCO.