An International Consultation Meeting
Transforming TVET for Meeting the Challenges of the Green Economy

Organized by the
UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training,
in collaboration with
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
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Background

The major challenge in the world today is to find ways of living and working sustainably, so that the reasonable needs and wants of people from all walks of life and in all countries can be satisfied without so over-exploiting the natural resources upon which all life depends that the ability of future generations to meet their needs and wants is threatened.¹

The growing significance of sustainability is having major impacts upon business, industry and society as a whole. Many new industries and employment opportunities are being developed, e.g. in ecotourism, environmental monitoring, sustainable community development, eco-design, recycling, alternative energy sources, land rehabilitation, pollution control, waste water treatment and reuse, etc. All require skilled workers who have knowledge of—and commitment to—sustainability, as well as the requisite technical knowledge. This is creating new roles and courses in Technical and Vocational Education and Training (hereafter TVET).²

In recent years, the concept of a “green economy” has become central to the international agenda. It is useful to review and clarify the linkages between a green economy and sustainable development. The concept of a green economy does not replace sustainable development; but there is a growing recognition that achieving sustainability rests almost entirely on getting the economy right.³ As a result, economic development today must ensure that future generations are left no worse off than current generations. However, a major challenge is reconciling the competing economic development aspirations of rich and poor countries in a world economy that is facing increasing climate change, energy insecurity, and ecological scarcity.

¹ UNESCO-UNEVOC, Orienting Technical and Vocational Education and Training for Sustainable development
² UNESCO-UNEVOC, Orienting Technical and Vocational Education and Training for Sustainable development
³ UNEP, Green Economy – Pathways to Sustainable Development and Poverty Eradication 2011
There is no universal agreement on the definition of what a green economy entails. The working definition of UNEP describes a “green economy as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive. In a green economy, growth in income and employment should be driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. A similar, but broader definition is provided by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), which states that a “green economy can be defined as an economy where economic prosperity can go hand-in-hand with ecological sustainability”.

Notwithstanding the complexity of an overall transition to a green economy, the desirability to moving a green economy varies considerably among nations, as it depends on the specifics of each country’s natural and human capital and in its relative level of development. As demonstrated in the United Nations Human Development Index there are many opportunities for all countries in such a transition—but at the cost of a large ecological footprint. Others have a very low footprint, but face urgent needs to improve access to basic services such as health, education, and potable water. Hence, the international community needs to understand green economies as sustainable societies, creating a balance between environmental, societal, cultural and economic considerations in the pursuit of enhanced quality of life.

As nations continue to expend resources and pollute and alter entire eco-systems, the transition to an environmentally sustainable economy is most urgent and will drive in coming years the changes in the mix of skills that countries require for development. For instance, the global rise of the green development agenda suggests that there is a need for TVET to engage more systemically with these concerns, both in terms of its own ways of working and in response to the changing job opportunities and skills needs.

Green skills is an essential and cross-cutting theme for sustainable development, being a foundation of green economy, society and the environment, and thus is reflected as a priority by the UNESCO Member States among other emerging and recurrent issues. Experience and education are critical to securing the job. The complexity, breadth and diversity of TVET for enabling conditions for a green economy require that a wide range of stakeholders become active and come together to implement the green TVET initiatives through a partnership approach: governments, parliaments, non-governmental organizations,

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media, the private sector, education institutions, research institutes, individual educators and students, among others. In view of these, bottom-up and top-down strategies must be combined.

Furthermore, as noted in the Discussion Paper Series 1 (UNESCO-UNEVOC, 2006) on Orienting Technical and Vocational Education and Training for Sustainable Development, TVET has multiple concerns about sustainability. The over-exploitation of natural resources, ill-health and grinding poverty can threaten the ability of future generations to satisfy their needs and wants. The challenge for TVET is to re-orient and re-direct its curricula to imbue students and trainees with respect for the conservation and sustainable use of resources, social equity and appropriate development, plus with competencies to practice sustainable tasks at the workplaces of today and tomorrow.

Agenda 21, the document adopted at the UN Conference on Environment and Development (UNCED, ‘Rio Summit’, Rio de Janeiro, 1992), likewise emphasized the need to promote education, public awareness and training in order to assist bringing about sustainable development. In particular, Chapter 36 on promoting education, public awareness and training states that, “Education and Training are vital for promoting sustainable development and improving the capacity of the people to address environment and development issues.”

In particular, the joint ILO and UNESCO Recommendations on Technical and Vocational Education for the Twenty-First Century states that, as “a vital aspect of the educational process in all countries” TVET should:

(a) Contribute to the achievement of the societal goals of greater democratization and social, cultural and economic development, while at the same time developing the potential of all individuals, both men and women, for active participation in the establishment and implementation of these goals, regardless of religion, race and age;
(b) Lead to an understanding of the scientific and technological aspects of contemporary civilization in such a way that people comprehend their environment and are capable of acting upon it while taking a critical view of the social, political and environmental implications of scientific and technological change;
(c) Empower people to contribute to environmentally sound sustainable development through their occupations and other areas of their lives.

In this context, Greening TVET ought to open a window to the world and vice versa, e.g. TVET institutions should explore and exchange information about innovative teaching and learning methods, such as programmes on renewable energy, clean water and clean technology,

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reorientation of TVET curricula, sustainable campus management programmes and examples of innovative approaches to integrating learning in TVET with on-the-job training and community services aimed at positive societal responses to bring the relevance and emphasis for a sustainable future. In sum, moving towards a greening TVET will not automatically address all poverty issues in relation to eradicating poverty and hunger which is the top priority of the UN Millennium Development goals, and should also be ensure that policies and investments geared towards a greening TVET are compatible with reducing environmental risks and scarcities.

However, the desirability of moving to a green TVET and the means of doing so is still a work in progress. Some of the initiative taken by the organizers in the recent past includes:

- Activities in 2005 to put the Action Plan into operation, including the preparation of a special issue of UNESCO’s journal Prospects on TVET and sustainable development and convening the first two of a series of regional dissemination and capacity building conferences on the outcomes of the Seoul+5 conference in October 2004 on Learning for Work, Citizenship and Sustainability in the Asia-Pacific region (in partnership with the CPSC and the Office of the Vocational Education Commission (OVEC) of Thailand and in Oman for the Arab States.
- Two regional programmes in July 2008 and November 2008, one in-country programme, December 2010, respectively on TVET for Sustainable Development by CPSC, where key priority areas in TVET in support of Sustainable Development were identified to meet emerging challenges.
- UNESCO-UNEVOC, CPSC and GIZ Advocacy for TVET for SD, capacity building in TVET for SD, development of the appropriate curriculum for integrating SD in TVET, learning resource materials development for TVET for SD, public-private-community partnership to enhance SD involvement and compilation of indigenous knowledge. Identifying new kind of approaches and creating new kind of teachers for implementing SD in TVET.
- Involvement in the workshop on Green TVET and Education for Sustainable Development: Capacity Development Needs for Water Education organized in Munich, Germany from March September 13-17, 2010.
- International Conference on Education for Sustainable Development in TVET, jointly organized by IVETA, InWEnt, Germany and CPSC from December 3-5, 2010 in Manila, Philippines.

The outcomes of these meetings suggested a set of proposed challenges and assumptions for strengthening performance and effectiveness of TVET and its contribution to sustainable development and its response to the changing job opportunities and skills needs that these issues bring about. In particular, the 2010 International Experts Workshops on Green TVET and ESD conducted in Bonn Germany discussed on the aspects of TVET that were restructured to be adaptable to the advocacy of greening TVET. The discussions paved the way for more understanding on the important role of TVET in promoting sustainable development and an increased awareness of TVET as a resource for supporting the enhancement of water sustainability. Building upon these past and ongoing key initiatives, the 2011 International
Experts Meeting seeks to motivate policy makers, educators and specialists who are those working in the field of TVET for their further commitment to transforming TVET towards a green development path and to increase innovation capacities to take advantage of opportunities arising from a green economy. In order to achieve set aims and objectives, the meeting is being organized by UNESCO-UNEVOC International Centre (Bonn, Germany) in collaboration with GIZ (Magdeburg, Germany) and CPSC (Manila, Philippines).

Programme Outline

Aims and Objectives

The International Experts meeting aims to advance greening TVET through sharing expertise from various perspectives and good practices at country level, and featuring assumptions as to what the green TVET approaches could deliver as a pathway to a green economy. Through working sessions, the purpose of the meeting is to identify key areas that may require greater emphasis in the development of greening TVET pathway and related issues and principles that will require further attention.

Through exchange of views, perspectives and lessons learnt, the meeting provides a platform to elaborate on the following themes:

- Transition to green economy and the role of TVET;
- Emerging green occupations and its implication for TVET;
- Transforming TVET for meeting the challenges of green economy.

Overall, the meeting offers an opportunity for participants to develop a common understanding of the concept of greening TVET through:

- examining current trends and international discourse on TVET to advance the green economy;
- addressing new and emerging challenges in TVET for meeting the labour market demands;
- comprehending country perspective of good practices in Greening TVET;
- reviewing capacities in strategic planning at country level and South-South and North-South technical cooperation;

Expected Outcomes

- Assimilated innovative approaches in TVET as to changing nature of occupations;
- A set of leading practice distilled from the analysis of shared experiences;
- A set of key areas that may require greater emphasis in the development of greening TVET
- Developed evidence-based information and guidelines for effective use at the country level;
- Increased awareness of green TVET as resources for supporting the enrichment of sustainability;
- Strengthened stakeholder involvements in TVET to advance the green economy;

The outcomes of this meeting will be used to contribute to the development of UNESCO strategy for greening TVET and provide policy recommendations for the advance of greening TVET. As a follow up to the workshop, the organizers intend to publish a cutting-edge book on key issues, concerns and prospects concerning Green TVET skills for Green economy. A rigorous process of peer-review will then be used to select the papers for inclusion in the book.

**Programme on the 30th October**

Besides, in consultation with the UNESCO Regional Offices, each TVET institution from LA & Caribbean; Arab States; Asia and the Pacific; Africa; and Europe and North America which are actively involved in the water related education and training will be nominated to participant in the discussion and in the process of the tool-kit development. The representatives of these selected institutions, being nominated as a resource person, are invited to participate in the discussion during a side-meeting as scheduled on the 30th October and provide critical input to the draft framework of the booklet which is the first in a series of The Greening TVET Toolkit Project.

The Toolkit project has been initiated by UNESCO-UNEVOC in response to recommendations made by decision makers and educators during the UNESCO-UNEVOC International consultation meetings held in Berlin (2009) and in Munich (2010), who identified a need for a systematic approach to integrating Greening issues into TVET and skills development relating to the low-carbon economy. Given this background, the booklet will include guidelines and checklists aiming to serve as an informational reference for TVET educators and practitioners by summarizing what is currently known about the potential and conditions in promoting TVET policy and practices for water sustainability.

This first booklet will highlight the introduction of green skills in curricula development for those who are going to be involved in related jobs with the water sector. To draw on worldwide knowledge and experience, these institutions are being requested to provide country/regional specific experience, practices and lesson learnt related to water education and programme development to be demonstrated in this booklet.

**Participants**

Representatives and experts from both CPSC member countries and the UNEVOC Network member countries, representing national policy makers, curriculum planners and teacher
educators, TVET institutions and their managers, teachers, and experts from TVET institutions and international organizations are invited to participate in the meeting and contribute to the expected outcomes of the meeting. This wider scope of participants invited by UNESCO-UNEVOC, GIZ and CPSC, will ensure “TVET for Green Economy” becomes a key part of the national TVET agenda to be followed through the UNESCO Strategy for the Second Half of the UN Decade on Education for Sustainable Development (UNDESD) and the UNESCO Strategy for Greening TVET.

References