



United Nations  
Educational, Scientific and  
Cultural Organization

Education for  
**E**  
Sustainable  
**S**  
Development  
**D**

+ **T** **V** **E** **T**  
Technical &  
Vocational  
Education &  
Training

PROMOTING SKILLS for  
SUSTAINABLE DEVELOPMENT



## There can be no sustainable development without education

*“Environmental, economic and social indicators tell us that our current model of progress is unsustainable. Climate change is destroying our path to sustainability. Ours is a world of looming challenges and increasingly limited resources. Sustainable development offers the best chance to adjust our course.”*

UN Secretary-General Ban Ki-Moon, January 2012

We need to put our world on a more sustainable development path. Yet reaching – and teaching – sustainability is still a paramount challenge. Without education, there can be no sustainable development.

Education empowers people with the knowledge, skills and confidence they need to shape a more stable and peaceful future. It is thus the key to building greener societies.

Sustainable development cannot be reached through technological solutions or financial instruments alone. Achieving sustainable development requires a change in the way people think and act. This change can be attained by:

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- ❖ **Systematically integrating Education for Sustainable Development (ESD) into all levels and settings of education and training**, from early childhood to higher education and workplace learning.
  - ❖ **Advancing and greening Technical and Vocational Education and Training (TVET)**. TVET prepares learners for fields of work and business such as construction, waste management and agriculture, many of which consume enormous amounts of energy, raw materials and water. Green TVET helps develop skilled workers who have knowledge of – and commitment to – sustainable development, as well as the requisite technical knowledge. Greening TVET is crucial for making a transition from energy and emissions-intensive economies to cleaner and greener production and service patterns.

**ESD and TVET are powerful forces that can help people to become active and ecologically responsible citizens, workers and consumers, able to address local and global challenges.**

## Why invest in ESD?



- Because ESD can help everyone to acquire the values, skills and knowledge needed to build a sustainable future.
- Because the transition to green economies and societies requires informed citizens and consumers who can move the sustainable development agenda forward.

## What is Green TVET?



- Green TVET encompasses pre-employment education and training, learning in the workplace and further training that address environmental, economic and social sustainability, while meeting the needs of industries and individual learners.
- Green TVET prepares people for green jobs that contribute to preserving or restoring the quality of the environment, while improving human well-being and social equity.

## Why invest in Green TVET?



- Because Green TVET helps production move to more environmentally conscious practices.
- Because national governments need to seize the potential for job creation by providing skills needed in new green sectors.
- Because disadvantaged groups in the labour market (youth, women, persons with disabilities, rural communities, and other vulnerable groups) require targeted support to develop knowledge and skills for green jobs.

# Green jobs and green skills

- Green jobs contribute to preserving or restoring environmental quality, while also ensuring adequate wages, safe working conditions, and workers' rights. Green jobs must be decent jobs and accessible to all.
- Green jobs can be found in all sectors – agriculture, industry, services and administration. They include jobs that protect ecosystems and biodiversity; reduce energy, materials and water consumption through high-efficiency strategies; de-carbonize the economy; and minimize waste and pollution.
- Green jobs are not confined to jobs in new green sectors such as renewable energy. A global study on skills for green jobs by the ILO – covering 21 countries representing 60 per cent of the world population – indicates that sweeping changes will take place in skills profiles within existing occupations.
- Given that all jobs can and should become greener, there is a need to develop a wide range of relevant skills for green jobs. Green TVET should play a crucial role in enhancing learners' creative, entrepreneurial and innovative skills. These skills need to be underpinned by the critical reflection on attitudes and values that is at the heart of ESD.



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In water and sanitation skills

Many countries are experiencing skills shortages in new green sectors. TVET can provide these needed skills.



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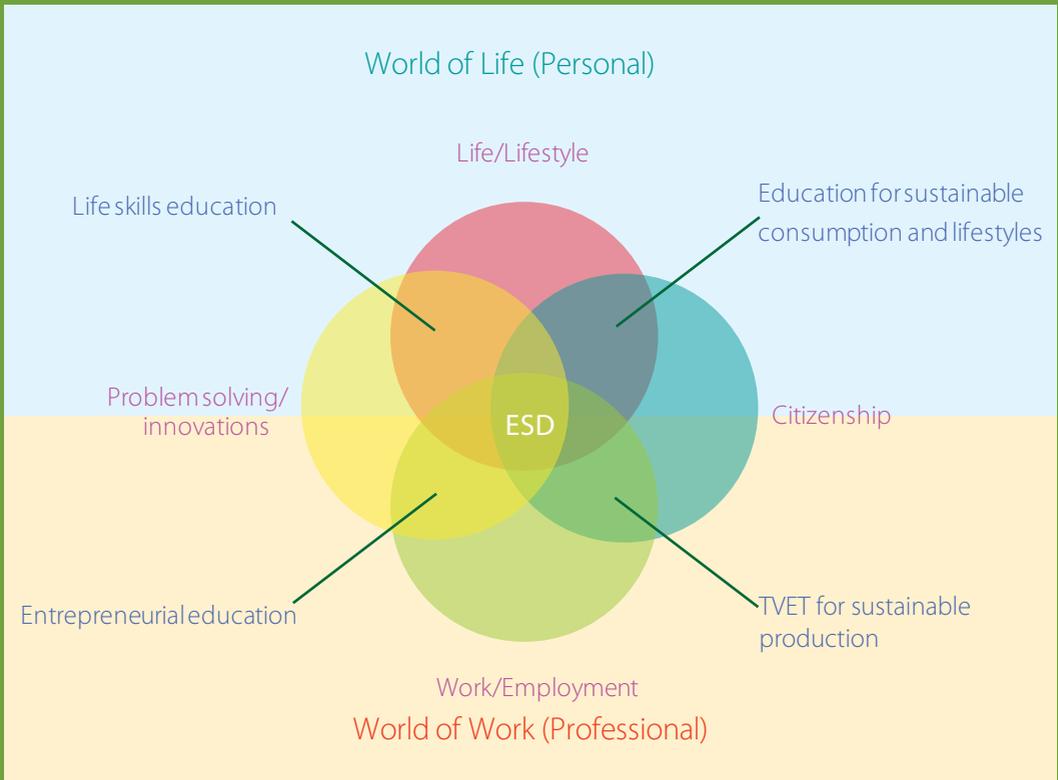
Basic skills affect the ability to learn new skills. It is critical to enable workers to take advantage of training for skills upgrading.



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Not all new skills are technical. Green TVET should enhance learners' skills in problem solving, analysing complexity, and exploring more sustainable forms of production and consumption.

# Skills for Sustainable Development



## ESD and Green TVET complement each other

TVET goes beyond promoting skills development for employability. It empowers young people and adults to develop skills for work and life. Green TVET therefore means more than developing technical skills for green employment (such as eco-tourism, renewable energy and recycling). It also means developing 'soft' green skills. There are thus considerable overlaps between ESD and Green TVET. Like ESD, Green TVET can include education for enhancing problem-solving skills in everyday situations (life skills education), education for sustainable consumption and lifestyles, and entrepreneurial learning. Green TVET ensures that all workers are able to play appropriate roles, both in the workplace and the broader community, by contributing to environmental, economic and social sustainability. ESD is at the core of green skills and provides a framework to reorient education and training at all levels towards sustainability.

# What can policymakers do?

The following recommended actions help ensure effective education and training with regard to green economies and green societies. They are distilled from key messages of UN documents which in turn are based on extensive expert consultations and a thorough synthesis of international studies.

## 1. Integrate sustainable development into education and training at all levels

- Incorporate the principles of sustainable development and environmental awareness into education at all levels.
- Train teachers and trainers in sustainability issues, and on how to integrate them into their daily practice.
- Ensure that updated and new curricula take economic, social, and environmental dimensions of sustainable development into account.
- Make ESD an integral part of training of leaders in business, industry, trade union, non-profit and voluntary organizations, and the public services.

## 2. Promote technical skills for a transition to a greener economy

- Train TVET teachers and trainers in fast-growing green sectors.
- Revise TVET curricula to offer courses in energy-saving and cleaner technologies and sustainable agriculture, including traditional technologies redefined as green technologies.
- Provide retraining for skills upgrading to keep workers' skills up to date with new demands of the green economy.
- Provide training for employers in the informal economy and micro and small enterprises to enter local green markets, especially in developing countries.
- Improve the match between classroom and workplace learning through apprenticeships, etc.
- Involve the private sector, trade unions and employers' associations in designing TVET to ensure its relevance to industry needs.



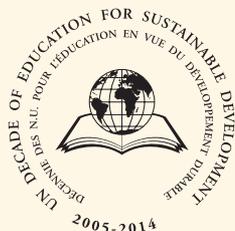
### 3. Promote basic skills and cross-cutting, generic green skills to enable workers to meet the new and emerging skills needs

- Promote basic skills (e.g. literacy, numeracy) as the foundation of flexibility, employability and further learning throughout life.
- Increase the capacity of education and training systems and institutions to provide basic skills for all and to enhance the national skills base.
- Cultivate key competencies required to facilitate the transition to sustainability, such as entrepreneurship and risk management skills.
  - Enhance education for entrepreneurship skills to promote the launch of new enterprises and self-employment directly and indirectly related to the green economy.
  - Provide entrepreneurship training and business coaching for young people and adults to start up green businesses in conjunction with microfinance projects in developing countries.

### 4. Enhance policy coherence and coordinated implementation of education and training for sustainable development

- Increase the reputation and attractiveness of key sectors to be greened such as waste management, recycling and agriculture, by improving the working conditions in these sectors.
- Integrate skills development into national environmental and development strategies.
- Design education and training responses in collaboration with relevant ministries to address national, regional or local demand.
- Design and implement ESD policies through interministerial and intersectoral approaches that also involve the private sector, civil society, local communities and the scientific community.





## Education for Sustainable Development (ESD)

The United Nations declared 2005-2014 as the UN Decade of Education for Sustainable Development (DESD). As lead agency for the DESD, UNESCO helps Member States to integrate sustainable development into their education planning, policy and practice.



**UNEVOC**

International Centre  
for Technical and Vocational  
Education and Training

## The UNESCO International Centre for Technical and Vocational Education and Training (UNEVOC)

The UNESCO International Centre for Technical and Vocational Education and Training (UNESCO-UNEVOC) assists Member States in greening TVET with special attention to TVET teacher education, curriculum development, learning resource development and enhancing multi-stakeholder partnerships to integrate ESD in TVET.



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