



International  
Labour  
Office

# SKILLS FOR GREEN JOBS



**ILO package** of publications and tools

September **2015**

Skills and  
Employability  
Branch

Employment  
Policy  
Department

Paying close attention to skills and the occupation requirements of green economy strategies is crucial since the shift to greener economies brings about structural changes in national labour markets. The green transition mostly affects existing occupations but new job profiles, mostly at higher skill levels, also emerge. The occupational profiles across sectors will change and require for the most part new and different skills. This poses a considerable challenge of retraining those workers who may lose their jobs, upgrading the skills of the current workforce and providing the right skills to those entering the changing labour market.

Skills gaps and shortages already pose a major barrier to transitions to green economies and green job creation, including the shortage of teachers and trainers. Good practices that anticipate and address skills needs include: effective social dialogue

among all stakeholders to define skills and education policies; a combination of top-down and bottom-up approaches to better reflect training provision needs; and public-private partnerships for skills and capacity development. To best tackle the skills challenge of greener economies, coordinated, coherent and forward-looking policies are necessary.

In order to support countries along with their transition to a greener economy and generation of more green jobs, the ILO promotes skills for green jobs through the publication of policy documents, development of tools and guides, research work, as well as capacity building activities. It works on the global and local levels. This brochure gives you an overview of our activities in these areas.

## KEY POLICY DOCUMENTS AND ADVOCACY MATERIALS

Policy and research briefs provide key policy messages and main research findings in a concise manner. These documents are based on applied policy research and case studies. While they target policymakers and social partners in both developed and developing countries, they are also useful for general readers who are interested in the topics.

A set of policy recommendations on skills needs for green jobs was prepared at the request of the G20 Development Working Group (DWG) under the Human Resource Development Pillar by the Interagency Working Group on Greening Technical and Vocational Education and Training and Skills Development. They were developed by the ILO, in cooperation with and based on inputs from the OECD, UNESCO and Cedefop.



### Policy recommendations for the G20

Bibliography: ILO. 2013. *Meeting skill needs for green jobs: Policy recommendations* (Geneva).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_234463/lang-en/index.htm](http://www.ilo.org/skills/pubs/WCMS_234463/lang-en/index.htm)



### Greening Technical Vocational Education and Training (TVET) and skills development: Challenges and opportunities

Bibliography: Interagency Working Group. 2012. *Greening Technical Vocational Education and Training (TVET) and skills development: Challenges and opportunities* (The Netherlands).

Download: [http://www.skillsforemployment.org/KSP/en/Details/?dn=WCMSTEST4\\_186094](http://www.skillsforemployment.org/KSP/en/Details/?dn=WCMSTEST4_186094)



### Skills for Employment Policy Brief: Greening the global economy - The skills challenge

Bibliography: ILO. 2011. *Greening the global economy: The skills challenge*, Skills for employment policy brief (Geneva).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_164630/lang-en/index.htm](http://www.ilo.org/skills/pubs/WCMS_164630/lang-en/index.htm)



### Skills for Employment Policy Brief: Greening the economies of least developed countries - The role of skills and training

Bibliography: ILO. 2014. *Greening the economies of least developed countries: The role of skills and training*, Skills for employment policy brief (Geneva).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_444556/lang-en/index.htm](http://www.ilo.org/skills/pubs/WCMS_444556/lang-en/index.htm)



### **Research brief: Investment in renewable energy generates jobs - Supply of skilled workforce needs to catch up**

Bibliography: ILO. 2011. *Investment in renewable energy generates jobs: Supply of skilled workforce needs to catch up*, Research brief (Geneva).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_168354/lang-en/index.htm](http://www.ilo.org/skills/pubs/WCMS_168354/lang-en/index.htm)



### **Research brief: Greening of the building sector is held back by skill shortages - Skills-led strategies can drive green building forward**

Bibliography: ILO. 2011. *Greening of the building sector is held back by skill shortages: Skills-led strategies can drive green building forward*, Research brief (Geneva).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_168353/lang-en/index.htm](http://www.ilo.org/skills/pubs/WCMS_168353/lang-en/index.htm)



### **Research brief: Anticipating skill needs for the low carbon economy? Difficult, but not impossible**

Bibliography: ILO. 2011. *Anticipating skill needs for the low carbon economy?: Difficult, but not impossible*, Research brief (Geneva).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_168352/lang-en/index.htm](http://www.ilo.org/skills/pubs/WCMS_168352/lang-en/index.htm)

# KNOWLEDGE AND RESEARCH PRODUCTS

The ILO has conducted research of its own or in partnership with other agencies on various topics relating to skills for green jobs. Research outcomes are available in publication to which interested readers can access online. These publications are suitable for policymakers, social partners and practitioners who require more in-depth knowledge and analyses, as well as readers with academic orientation.



## Skills for green jobs: A global view

This report provides a global synthesis of country reports and over 150 case studies.

Bibliography: ILO. 2011. *Skills for green jobs: A global view* (Geneva).

Download: [http://www.ilo.org/skills/projects/WCMS\\_115959/lang--en/index.htm](http://www.ilo.org/skills/projects/WCMS_115959/lang--en/index.htm)



## Skills for green jobs: European synthesis report

This report summarizes six European country studies (Denmark, Estonia, France, Germany, Spain, and the UK) conducted by the European Centre for the Development of Vocational Training (Cedefop).

Bibliography: Cedefop and ILO. 2010. *Skills for green jobs: European synthesis report* (Luxemburg, Publications office of the European Union).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_143855/lang--en/index.htm](http://www.ilo.org/skills/pubs/WCMS_143855/lang--en/index.htm)



## Comparative analysis of methods of identification of skill needs on the labour market in transition to the low carbon economy

Bibliography: ILO. 2011. *Comparative analysis of methods of identification of skill needs on the labour market in transition to the low carbon economy* (Geneva).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_166824/lang--en/index.htm](http://www.ilo.org/skills/pubs/WCMS_166824/lang--en/index.htm)



## Skills and occupational needs in renewable energy

Bibliography: ILO. 2011. *Skills and occupational needs in renewable energy* (Geneva).

Download: [http://www.ilo.org/skills/pubs/WCMS\\_166823/lang--en/index.htm](http://www.ilo.org/skills/pubs/WCMS_166823/lang--en/index.htm)



## Skills and occupational needs in green building

Bibliography: ILO. 2011. *Skills and occupational needs in green building* (Geneva).

Download: [http://ilo.org/skills/pubs/WCMS\\_166822/lang--en/index.htm](http://ilo.org/skills/pubs/WCMS_166822/lang--en/index.htm)



## Skills for green jobs: country studies (report)

Country studies are available for the following countries: Australia, Bangladesh, Brazil, China, Costa Rica, Egypt, India, Indonesia, Korea, Mali, Mauritius, the Philippines, South Africa, Thailand, Tunisia (French), Uganda, and the United States.

Bibliography: ---(author's name). 2010. *Skills for green jobs in*\*\*\* (country name): Unedited background country study (Geneva, ILO).

Cedefop applied the same research method in six EU member States: Denmark, Estonia, France, Germany, Spain, and the UK.

Bibliography: Cedefop. 2010. *Skills for green jobs: Country report*\*\*\*(country name) (Geneva, ILO).

Download (all country studies can be accessed here): [http://www.ilo.org/skills/inst/WCMS\\_144268/lang--en/index.htm](http://www.ilo.org/skills/inst/WCMS_144268/lang--en/index.htm)

Note: Country report on Tunisia was published by the Millennium Development Goals Achievement Fund.

Bibliography: MDGIF-MDG Achievement Fund. 2013. *Etude Sur les Compétences pour les Emplois Verts en Tunisie*, Millennium Development Goals Achievement Fund, Youth, Employment & Migration programme.

Download: [http://ilo.org/skills/pubs/WCMS\\_166822/lang--en/index.htm](http://ilo.org/skills/pubs/WCMS_166822/lang--en/index.htm)



## Prospección de necesidades formativas para la generación de empleos verdes en Centroamérica y República Dominicana [Survey of training needs for the generation of green jobs in Central America and Dominican Republic] (report)

ILO. 2015. *Prospección de necesidades formativas para la generación de empleos verdes en Centroamérica y República Dominicana* (San Jose).

Download: [http://www.ilo.org/sanjose/programas-y-proyectos/formacion-orientacion-insercion-laboral/WCMS\\_369044/lang--es/index.htm](http://www.ilo.org/sanjose/programas-y-proyectos/formacion-orientacion-insercion-laboral/WCMS_369044/lang--es/index.htm)

## PRACTICAL TOOLS AND GUIDELINES

The ILO has been producing practical tools and guidelines for easy use of policymakers, social partners and practitioners. They are developed based on ILO's experience in implementing technical cooperation projects and providing technical advice in various developing countries. The ILO shares its experience and lessons drawn in these tools and guidelines.

### Anticipating skill needs for green jobs: A practical guide

This guide contains practical guidelines on the integration of skills into green jobs assessments.

Bibliography: Gregg, C.; Büdke, C; Rihová, H.; Strietska-Ilina, O. Forthcoming. *Anticipating skill needs for green jobs: A practical guide* (Geneva, ILO).

### Technical competency standards and curriculum designs

The Regional Network of Training Institutions with the support of the ILO project FOIL has developed technical competency standards and curriculum designs for the following eight occupations in the green job sector:

- Organic producer
- Photovoltaic systems installer and maintainer
- Low voltage wind generation systems installer and maintainer
- Recyclable materials rescuer
- Forester
- Water treatment operator
- Environmental risk manager
- Watershed manager

Download: <http://www.redifp.net/web/2013-11-28-04-08-06/metodologias-normas-y-disenos-curriculares-regionales>

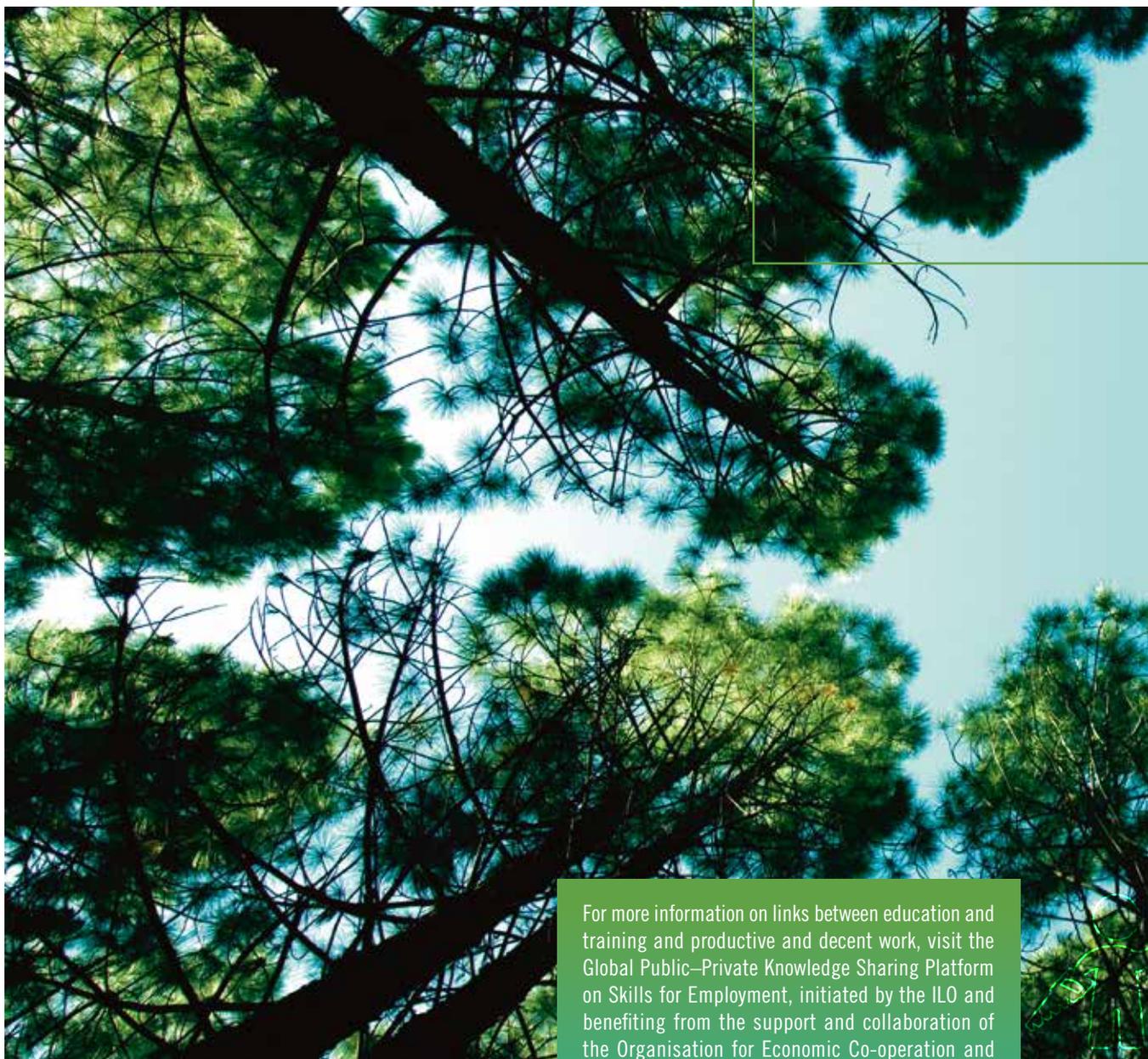
## CAPACITY BUILDING AND TRAINING

The ILO supports policymakers, social partners and practitioners by conducting capacity building activities and regular training. These training courses take place in the International Training Centre of the ILO (ITC-ILO), Turin, Italy. The ILO also provides ad-hoc training upon request. Some course materials are available online.

- ITC-ILO green jobs training course "Promoting green jobs policies: Employment potential and skill needs in a greener economy" See upcoming courses on green jobs at the ILO-ITC.
- ITC-ILO Academy on Skills Development (a module on Green Economy) See upcoming courses on skills development and vocational training at the ILO-ITC.
- ITC-ILO e-learning course on green jobs (Skills component).
- PAGE Academy on the Green Economy (elective on skill needs assessment and development).

## CONTINUED ENGAGEMENT FOR GREEN JOBS

The ILO will continue to generate knowledge, share expertise and provide technical guidance on skills for green jobs for governments, social partners and practitioners. It will assist countries in developing skills to meet the environmental challenges and support their transition to a greener economy.



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For more information on links between education and training and productive and decent work, visit the Global Public–Private Knowledge Sharing Platform on Skills for Employment, initiated by the ILO and benefiting from the support and collaboration of the Organisation for Economic Co-operation and Development (OECD), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank. <http://www.skillsforemployment.org/KSP/en/index.htm>