Skills for Green Jobs: A Global View.

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The project

- Started in early 2009
- Partnership with Cedefop
- Standardised template for all
- Qualitative research. Methods varied.
- 148 case studies (107 by the ILO and 41 by Cedefop)
- The report is not only our product but also of those of you who prepared background reports!
Country coverage

60% of world population
59% of global GDP
64% of global CO2 emissions
Drivers of change

• Changing natural or built environments;
• Environmental / climate change policy and regulation;
• Green technology and innovation;
• Markets for green industries and consumer habits
Key challenges

• Environmental challenges
  – Climate Change
  – Environmental degradation

• Economic and social impacts
• Energy crisis and diminishing natural reserves
• Aggravated by the current labour market situation
Will investments and stimuli into green industries save the world?

Global unemployment trends, 1999-2009
Green stimulus packages

- In the US, skills measures constitute **0.6 %** of the total amount spent on green recovery
- In Switzerland – the estimate is **4.6%**
Environmental and skills policies

- Comprehensive environmental policies
- Lack of environmental policies
- Comprehensive skills policies for greening
- Lack of skills policies for greening

Countries:
- China
- South Africa
- Indonesia
- Bangladesh
- Mali
- Uganda
- Egypt
- Costa Rica
- Estonia
- Brazil
- India
- Philippines
- Thailand
- Korea
- Denmark
- Germany
- Spain
- UK
- France
- US
- Australia
Green structural change

- Additional jobs will be created.
- Some employment will be substituted.
- Certain jobs may be eliminated without direct replacement.
- Many existing jobs will be redefined.
- New jobs created will offset those lost.
- But those who will get green jobs are not necessarily those who will have lost their jobs.
Sectors affected and retraining needs

- Agriculture, forestry and fisheries
- Extracting industries and fossil-fuel energy generation
- Emissions intensive manufacturing, in particular:
  - Automotive sector and related supply chains;
  - Ship-building and related marine engineering activities.
# Changing and emerging occupations

<table>
<thead>
<tr>
<th>Degree of skill change</th>
<th>Occupational change</th>
<th>Typical skills response</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None or only quantitative</td>
<td>None or increased training in existing occupation</td>
<td>Bus driver in CNG driven buses; forester</td>
</tr>
<tr>
<td>Low</td>
<td>Changing occupation</td>
<td>On-the-job learning or short training courses</td>
<td>Welder in wind turbine production; Organic farmer</td>
</tr>
<tr>
<td>Medium</td>
<td>Changing or emerging occupation</td>
<td>Short courses or longer continuous training</td>
<td>Energy consultant in building; car mechanic for electric cars or CNG cars</td>
</tr>
<tr>
<td>High</td>
<td>Emerging occupation</td>
<td>Initial training, university degree or longer continuous training</td>
<td>Solar energy technician; eco-designer; biofuels technician</td>
</tr>
</tbody>
</table>
Changes in existing occupations outnumber new ones

- Quantitative and qualitative changes
- Skill content for occupations to become greener is far from being uniform across countries
- Many changes relate to knowledge about regulation and new technologies, some to new markets and demand
- Emerging occupations more often require higher level qualifications
- Changes in existing occupations happen more often at the low and medium-skill level
- Gender dimension
Generic and core skills

- Strategic and leadership skills for policy-makers and business executives
- Adaptability and transferability skills,
- Environmental awareness and attitude and willingness to learn about sustainable development;
- Co-ordination, management and business skills;
- Systems and risk analysis skills;
- Entrepreneurial skills;
- Innovation skills;
- Communication and marketing skills;
- Consulting skills to advise consumers;
- Networking, IT and language skills.
Skills shortages already pose a major barrier to transitions to green economies and green job creation

- In certain sectors and occupations
- Particular core skills
- Multiskilling requirements

Why are there shortages?

- Underestimated growth of some sectors, such as for green technologies
- General lack of scientists and engineers
- National skill structure which does not meet skills demand
- Low reputation of sectors – failure to attract trainees
Skills responses for greener economies

- At different levels: enterprise, industry, government (national, regional, local), by universities, training providers, research institutes, NGOs and international donors
- Inside and outside existing education and training systems and mechanisms
- Variety of mechanisms, some innovative

Effectiveness - difficult to assess

- Targeting responses
- Industry level, PPPs, and coherent multi-level responses most effective
- Generally stronger in basic and higher education and weaker in TVET
Anticipating the skill change

- The dynamic and inclusive nature of the GJs concept brings the measurement challenge
- Paucity of data on classification and incidence of green jobs
- The established LMI and skills identification systems proved useful, although not always used in the GJs context
- The standard systems in non-standard situations are not sufficient
- Reliance on the grassroots level of research in all countries
- Tripartism in identification of qualifications’ content and of competences needs is crucial
- Sectoral approaches alone are seen as delimiting
- More coordination is asked when it comes to skills for GJs

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Where no LMIS exists...

- Demography matters: surplus of the workforce gives a wrong impression of abundance of available skills
- Where no LMIS exists, countries rely on ad-hoc surveys by NGOs, donors, universities and line ministries
- Enterprises bare the burden trying to adjust to the changing situation on their own
- Sectoral approaches are much sought
- And also more coordination – one-stop shop for GJs
Some preliminary general conclusions

• The change is happening
• The rate of it depends on the degree of effects of environmental degradation, policy, legislation and technology diffusion, as well as the role of market and consumer demand
• The success in response measures depends on policy coherence, targeted measures and collaboration of various actors and levels
Thank you for your attention and for the forthcoming discussion and feedback!

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