Green Jobs: the Impact of Climate Change in the World of Work

Martin Gasser m.gasser@itcilo.org
Sustainable Islands – Towards a Low Carbon Economy
Inverness, 25/09/09
Outline

• Social, economic, environmental challenges
• What’s a Green Job?
• High potential sectors for Green Jobs (GJ)
• Green Jobs Programme of the ILO:
  – Examples of ILO projects per country
  – GJ Programmes
Achieving economic and social development and environmental sustainability

- **Environmental**: climate-related disasters (262 mill), water shortages (1.8 mill), environmental refugees (50 mill), displacement by flooding (330 mill), food shortages (180 mill now + 600 mill 2080), loss of biodiversity

- **Social/decent work**: working poor (1.3 bill), unemployed (190 mill), young job seekers (500 mill), no access to social security (5.3 bill), food, shelter (1 bill), energy (1.6 bill)
Transformation to a sustainable economy

- Reducing climate change and other environmental challenges while allowing ‘clean and sustainable development’ – need for a Great Transformation.
- The transformation needs to be faster, more global and altogether more equitable than the one which led the world to the modern market economy.
- Profound impact on enterprises and workers
- Decent work? Social sustainability?
Green jobs – a definition

- Reduce consumption of energy and raw materials (dematerialize economies)
- Avoid greenhouse gas emissions (decarbonize economies)
- Minimize waste and pollution
- Protect and restore ecosystems and environmental services
- Can be created in all sectors and enterprises (direct, indirect and induced jobs)
- Decent jobs: adequate incomes, social protection and respect for workers rights
GJ Report: High potential sectors

- Energy efficiency in buildings, industry, transport
  - Green building and retrofitting jobs (i.e. German Alliance for Work and the Environment – building retrofit programme serving 342,000 apartments: additional 25,000 jobs + saving 116,000 existing)
  - Jobs for green designers, architects, auditors, engineers, estimators project managers, construction trade, pipe fitters, sheet metal workers, general construction workers, etc.
Energy supply alternatives:
- 300,000 workers globally are employed in wind power – 170,000 in solar photovoltaics
- Renewables are generally labour-intensive sectors.
- Higher investment on hiring people and less on acquiring machines, supplies, land and produce far more jobs at all pay levels than fossil fuel industries.
- Clean energy programmes rely more on local economic activities.
Mobility: mass transportation
- Transportation responsible for an estimated 23% of energy-related greenhouse gas emissions
- Green auto-industry jobs: 235,000 (under 120 CO2) and 800,000 (under 140 CO2)
- New transportation systems: shift away from private vehicles, retrofitting private and public transport
- i.e. China, India, and Pakistan heavily invested in compressed natural gas (CNG) – introduction of 6,100 CNG buses by 2009 in New Delhi expected to create 18,000 jobs
Recycling, waste management
- No global figures
- In developing countries recycling performed by informal network of “scrap collectors”
- China:  
  - 1.3 million people in formal waste collection  
  - 2.5 million informal workers or scrap collectors  
  - 10 million in aspects of recycling, reuse and remanufacturing  
- Brazil: 500,000 people involved in materials collection

Challenge: In developing countries recycling jobs are largely driven by poverty (dirty and hazardous)
GJ Report: High potential sectors

- **Sustainable agriculture and forestry**
  - In 2006, 31% of the Earth’s population (1.3 billion) made their living from growing food and raising livestock (44.4% in 1995)
  - Trends: intensive plantation of soy and palm oil, export-oriented production of tropical fruits, vegetables, wine, cut flowers, intensive livestock (meat)
  - Working conditions in “high-value” agriculture are extremely poor, affecting disproportionately women, high energy and chemical inputs needed, serious effects on biodiversity
  - Increasing distance from plough to plate, sharp increase in food-related trucking – many jobs but not green jobs
Examples Existing Green Jobs

- Renewable energy: 2.3 million jobs globally
- Environmental industries US: 5.3 million jobs
- Green jobs France: 220,000 (in 2 years) - efficient buildings, renewables, public transport
- Environment related jobs in EU 27: 8.67 million
- Solar thermal China: 1,000 manufacturers, 600,000 jobs
Climate change and labour markets

• Employment affected in at least four ways:
  – Additional jobs created: i.e. pollution control devices
  – Some employment substituted: i.e. shifting from fossil fuels to renewables
  – Certain jobs eliminated without direct replacement: i.e. banned products
  – Many jobs transformed and redefined: i.e. plumbers, electrician, metal workers, IT managers…
On balance

- **Net gain in jobs** from active climate and environmental policies
- **Large potential in developing countries** and emerging economies
- Greening and green jobs **effective as economic stimulus**

Which implies:
- Major gains and losses, mostly within sectors
- Transformation of most jobs + sectors
Green Jobs Report policy messages

- **No need to chose** between climate protection and development/social justice
- Condition: **coherent policies**, scaling up investments and finance
- **Inaction** would massively destroy jobs and incomes
- **Prepare for change** and guide: anticipation, mapping
- **Pro-poor, decent jobs and fair transitions** to sustainable economies (adaptation and mitigation)
ILO programme on GJ: Priorities

• 5 Building blocks/priorities:
  – Tools to diagnose labour market impact and to inform policy
  – Practical approaches to greening enterprises
  – Promotion of green jobs in waste management and recycling
  – Green Jobs in renewable energy and energy efficiency
  – Job creation and enterprise in adaptation to CC
ILO country programmes on GJ

• Asia
  – China: mapping labour market impacts due to CC, energy efficiency, improving management at enterprise level for cleaner and greener productions
  – Bangladesh: waste management and access to renewable energy (with Grameen Shakti)
  – India: local development and renewable energy (i.e. biogas, composting)
  – Thailand: greening enterprises
  – Philippines: local development for adaptation to CC (UN joint programme on “Strengthening the Philippines Institutional capacity to Adapt to CC”)
• Americas
  – Costa Rica: sustainable agriculture and eco-tourism
  – Brazil: biofuels, green jobs in social housing
  – Haiti: infrastructure for adaptation to CC (prevention of natural disasters)
• Africa
  – Tanzania: sustainable waste management
ILO programme on GJ: HQ

• ILO Turin Center: Green Jobs course:
  – Two editions of the GJ course for ILO constituents have been undertaken in 2009. Third course October.
  – Training in specific regions: Asia in October

• Skills department:
  – Skills for Green Jobs: 15 country studies
  – Analytical tools for identification of skills needs for green jobs
  – Collection of case studies to analyze skills responses to promote green jobs
• International Institute of Labour Studies:
  – Chapter of the Word of Work Report to analyze the labour market and distributional effects of different policies used to address climate change

• ACTRAV (Workers)
  – Global Union Research Network Workshop on Green Jobs and Climate Change
  – Strengthening Social Dialogue
  – ACTRAV-TURIN: On-line Training on Sustainable Development for Trade Unionists

• ACTEMP (Employers)
  – toolkit on Climate Change
Thank you for your attention!

More information about the work of ILO on Green Jobs: