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Introduction to Green Jobs Concepts (global and regional experiences)

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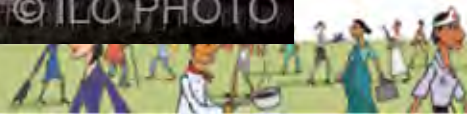
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1. The two challenges of the 21st century

- **Green jobs address the two defining challenges of the 21st century**
 - **Averting dangerous climate change and environmental degradation**
 - **Pressing need to deliver social development and decent work for all**



The employment and social challenge



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- **Unemployed: 205 million globally, 83 m in Asia-Pacific**
 - **Of these, nearly 40 per cent are between 15 and 24 years of age**
- **One in five workers in extreme poverty (< \$1.25/day)**
 - **Two-thirds of these workers in A-P**
- **World's working age population to grow from 4.5 billion in 2010 to 5.2 b in 2025**
 - **Asia home to 300 m of these 700 m additional workers**
- **Only one in five working-age population have access to comprehensive social protection systems**



The environmental challenge

- **Climate change – sea level rise, increase in extreme weather events (storms, floods, droughts, water fall patterns, etc)**
- **(World population 1 bn 1900 – 9 bn 2050?)**
- **No access to potable water: nearly 900 million people**
- **No access to reliable energy: 3 billion households**
- **Nearly $\frac{3}{4}$ of world's poorest depend on environment as a significant part of their daily livelihood**

Environmental challenges have an far-reaching implications in terms of livelihoods and labour market dynamics



Responding to these challenges

- Responding to these challenges requires a far-reaching transformation to the way we produce, consume and earn a living
- **Green jobs** will be a key element of this shift to a sustainable, low-carbon economy



2. Green Jobs



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Green jobs is defined by the ILO/UNEP as:

“employment created in economic sectors and activities, which reduces their environmental impact and ultimately brings it down to levels that are sustainable”



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What do we mean by green?

- Green jobs contribute directly to reducing the environmental impacts of the economy
 - By enhancing green sectors (**Green Jobs** in renewable energy, pollution control, forestry, mass transport, eco-tourism...)
 - Improving the environmental performance of existing sectors (**Greener Jobs** in manufacturing, construction, tourism...)
 - Adapting to the effects of climate change (**Green Jobs** to build climate resilient infrastructure...)



A multi-dimensional dynamic concept



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- A Green Job in country A is not necessarily a Green Job in country B
- A green job today will not necessarily be a green job tomorrow





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What do we mean by decent work?

The ILO's Decent Work Agenda provides a framework with four strategic objectives:

1. **Fundamental principles and rights at work and labour standards**
2. **Employment and income opportunities** - opportunities for work that is productive and delivers a fair income
3. **Health and Safety and Security in the workplace and social protection for workers**
4. **Social dialogue and tripartism** - freedom for people to express their concerns, organize and participate in decisions that affect their lives

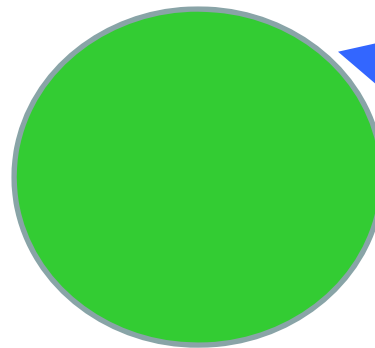


Impact of the transformation to a greener economy on sectors



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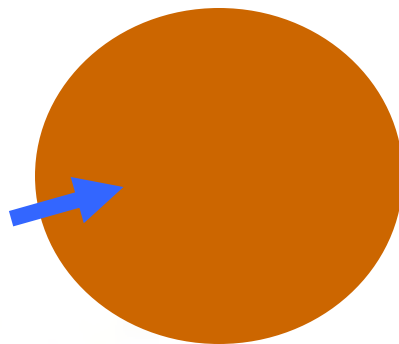
Expansion of green sectors



Eg. Recycling,
eco-tourism

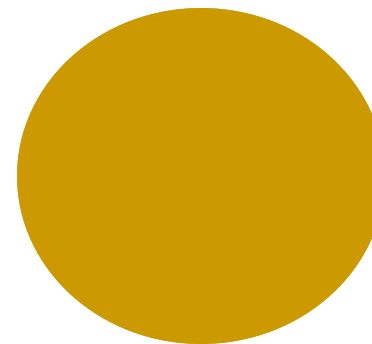
Some sectors will decline

Eg. Some
industries
that
cannot
adapt



Most sectors will evolve

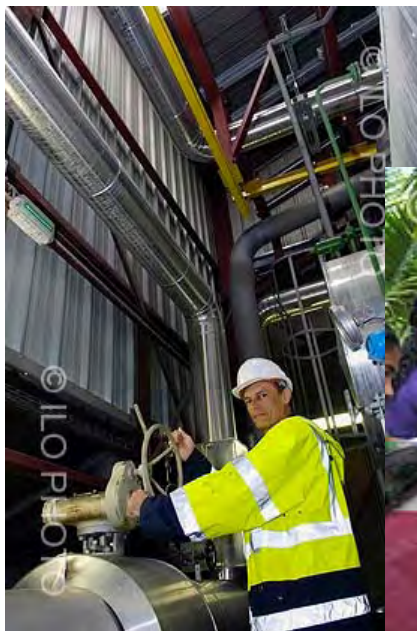
Eg.
Manufacturing,
construction,
transport



Examples of potential green jobs

Need to look at:

- environmental impact
- decent work element



Examples of potential green jobs

- Mangrove planter
- Mechanic for CNG propelled buses
- Manufacturer of fuel efficient car
- Sustainable farmer (resource management, carbon capture)
- Farmer in agro-forestry
- Workers in certified forestry
- E-Waste collector
- Architects and engineers designing renewable technologies and energy efficiency products

Need to look at:

- environmental impact
- decent work element



4. Estimating green jobs

- Green Dynamic Social Accounting Matrix (Green DySAM)
- Updated input-output tables incorporating green sectors,
- Assess and predict potential environmental and socio-economic impacts of climate mitigation and adaptation measures on employment and incomes.
- Labour ministries can develop programmes to undertake research on the labour market and track demands for green skills and green jobs.
- Mainstreaming employment targeting and employment impact assessments into economic and environment-related strategies.
- Employment and skills needs forecasting ought to be integrated in to economic planning and integrated with environment-related agendas to anticipate new developments in the labour market.



4. Estimating green jobs

Bangladesh – 3.5 million existing core env-related jobs

Sectors	Core env-related jobs	Direct 'Green' jobs	Indirect jobs
Sustainable agriculture	41,548	n.a.*	47,482
Sustainable and participatory forestry	28,813	n.a.	28,121
Sustainable energy	18,823	18,823	50,561
Waste management and recycling	189,180	n.a.	212,753
Collection purification/distribution of water	8,441	n.a.	n.a.
Climate adaptation activities	1,726,755	616,052	967,849
Manufacturing and energy efficiency	10,934	10,934	21,472
Sustainable transportation	178,510	178,510	54,049
Sustainable construction	1,340,000	536,000 – 670,000	1,416,364
Total	3,543,004	1,427,319	2,798,651



GHK Consulting 2010

*n.a. – not available

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4. Estimating green jobs

Bangladesh – 3.5 million existing core env-related jobs

- **800,000** of these jobs can be considered “green jobs” as they meet decent work standards.
- Core environment-related jobs and green jobs account for nearly 7% and 2% respectively of total jobs (49.5 million) in the economy.
- Another **4 million** jobs are indirectly supported as a result of these core environment-related and green jobs.
- **Climate adaptation activities (62%)** and **sustainable construction (21%)** account for most of the identified environment-related jobs

GHK Consulting 2010

*n.a. – not available





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Green jobs are affected by changes at all levels of the economy

National economic plans, social protection and the regulatory environment will create jobs and support decent working conditions

- **Micro level – changing consumer behaviour, workplace practices.**
- **Meso level – industry and community initiatives eg. corporate social responsibility, green financing, sectoral programmes.**
- **Macro level – national economic plans, skills policies, social protection, regulatory environment.**



Brazil



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- **2.65 m existing formal green jobs (comprising 6.7% of the formal labour market)**
- **For example, approx. 60,000 workers recycling industry**
- **Green Social Housing -upgrading the informal settlements. 3 million affordable homes to be built using principles of green construction, creating green jobs and skills for local people, based on the U.K.'s *Sustainable Code Level 6***



India



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- **The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) - employment-intensive growth policy focuses on conservation of resource bases in rural areas**
- **Links policies for poverty alleviation and income security with climate change adaptation and investments in natural capital**
- **Works are related to water, soil and land conservation activities such as recharging groundwater, reducing soil erosion, conserving biodiversity, reclaiming degraded lands and carbon sequestration**
- **Provided income security and a social protection floor to approximately 54 million rural households**





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South Korea

- **The Four Major Rivers Restoration Project (2009)**
- **Part of governments Low Carbon Green Growth agenda**
- **Goal = water security, improve flood control measures, regenerate ecosystem vitality, new opportunities for rural economic development along the restored river routes.**
- **Created for 88,400 jobs (US\$ 6.6 billion) for 2 years,**
- **Investments related to climate adaptation (eg. strengthening old levees, dredging sediment, expanding carbon sinks and flood monitoring technologies)
mitigation: Photovoltaic and small hydropower power plants**



Biogas Power Generation in Samoa



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Trained villagers to build biogas digesters

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Retrofitting Prefabricated Buildings Mongolia



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- Approximately 250,000 people (20% of the urban population) live in prefabricated buildings in Ulaanbaatar.
- 40 % of the heating energy can be saved. A potential 60% or more is also possible with consumption-oriented heating tariffs.



Skyrise Greenery Program Singapore



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- Urban greenery and ecology designed to enhance the urban living environment
- Reduces the need for air conditioners, saving energy and reducing GHG emissions.



China ACFTU: The Role of Trade Unions in Promoting Energy Efficiency



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- Reducing emissions in the workplace and in advocating awareness and innovation about energy efficiency among workers.
- Training program to create 670,000 new energy efficiency inspectors.
- Ensuring workplaces and enterprises are compliant with environmental regulations.
- Rewards for innovative energy efficiency ideas; quiz and speech competitions; monthly energy reductions themed events and specific training programs for energy efficiency inspectors.
- ACFTU plans to build 800 new demonstration points and 50 female worker training and demonstration schools for green skill and re-skilling programs for laid-off and migrant workers.



Australia National Green Jobs Corp



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- **Green skills and accredited training to 10,000 young people (aged 17-24 years old) for employment in emerging green sectors.**
- **Integrated with variety of social protection policies**
- **Projects include; restoring degraded beaches, dunes, riverbanks, foreshores; land surveys and audits; building and repairing board walks; regeneration and replanting of degraded lands; wildlife and fish habitat protection; refurbishing public parks; building or repairing bikeways; landscaping gardens using native plants and work in recycling and waste management.**



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Thank you

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