

# A Just Transition to Clean Energy and Greener Economies and Societies

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- ## The Green Jobs Programme of the ILO





## Rio+20: Green Economy, Sustainable Development and Poverty eradication

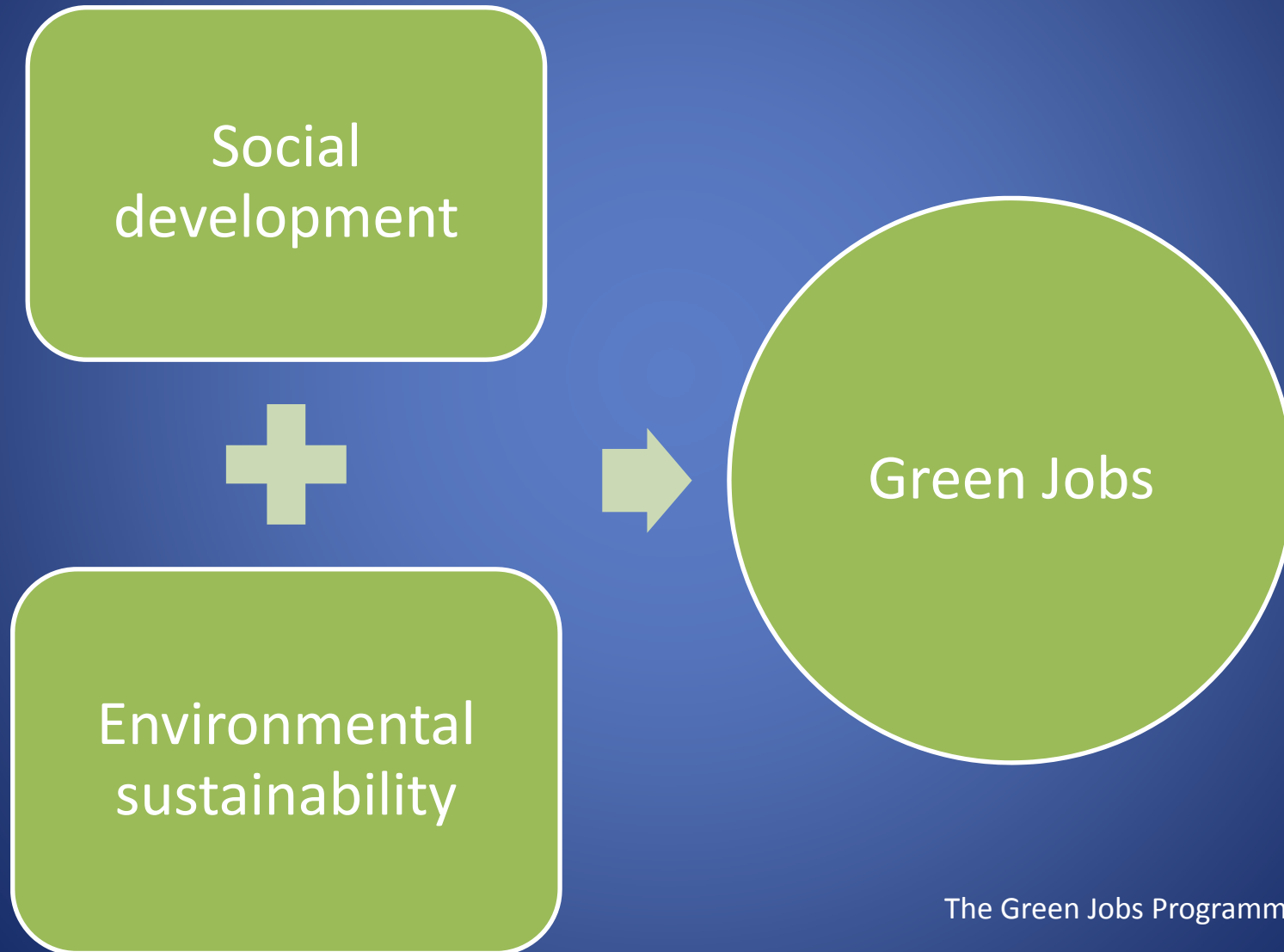
The importance of inclusive green economies  
in setting the pathway to sustainable  
development

Triple benefit:

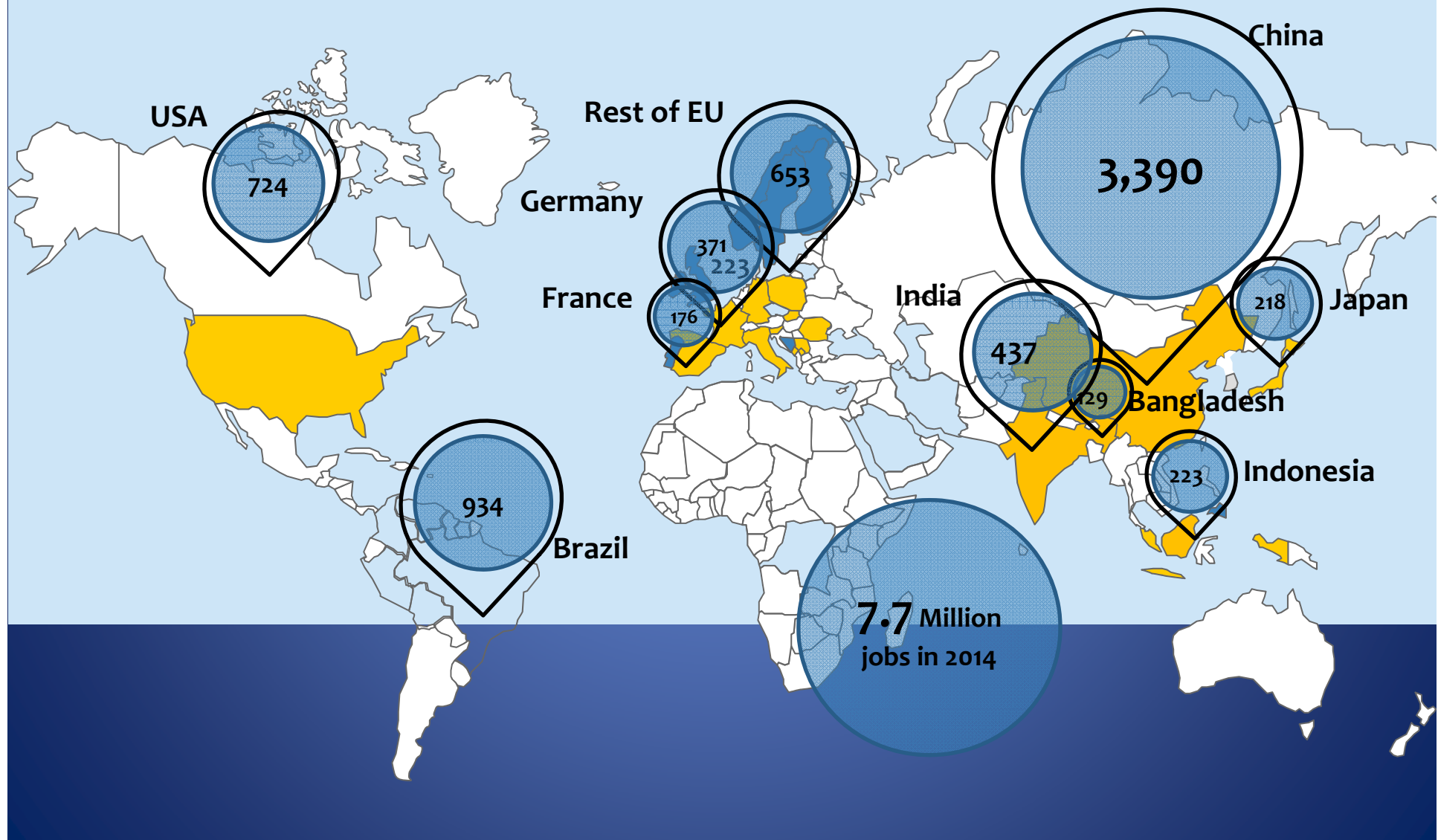
1. Environmental - climate change resilience, low-emission development, stable natural environment and lasting biodiversity
2. Economic – viable enterprises and sectors
3. Social – decent work, poverty eradication, social inclusion



# Green Jobs provide the linking element to address the two key challenges

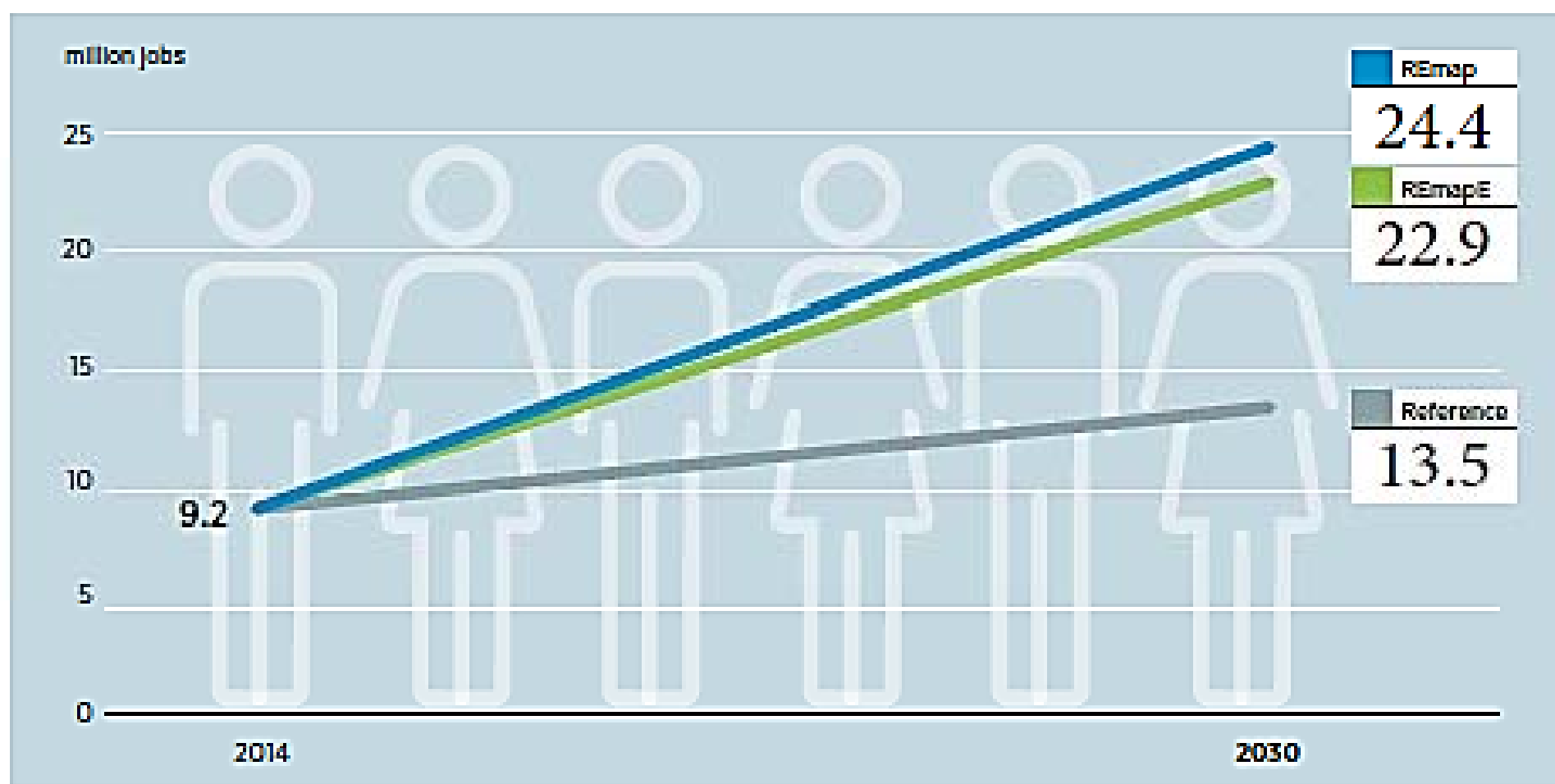


## Example: Jobs in Renewable Energy - now





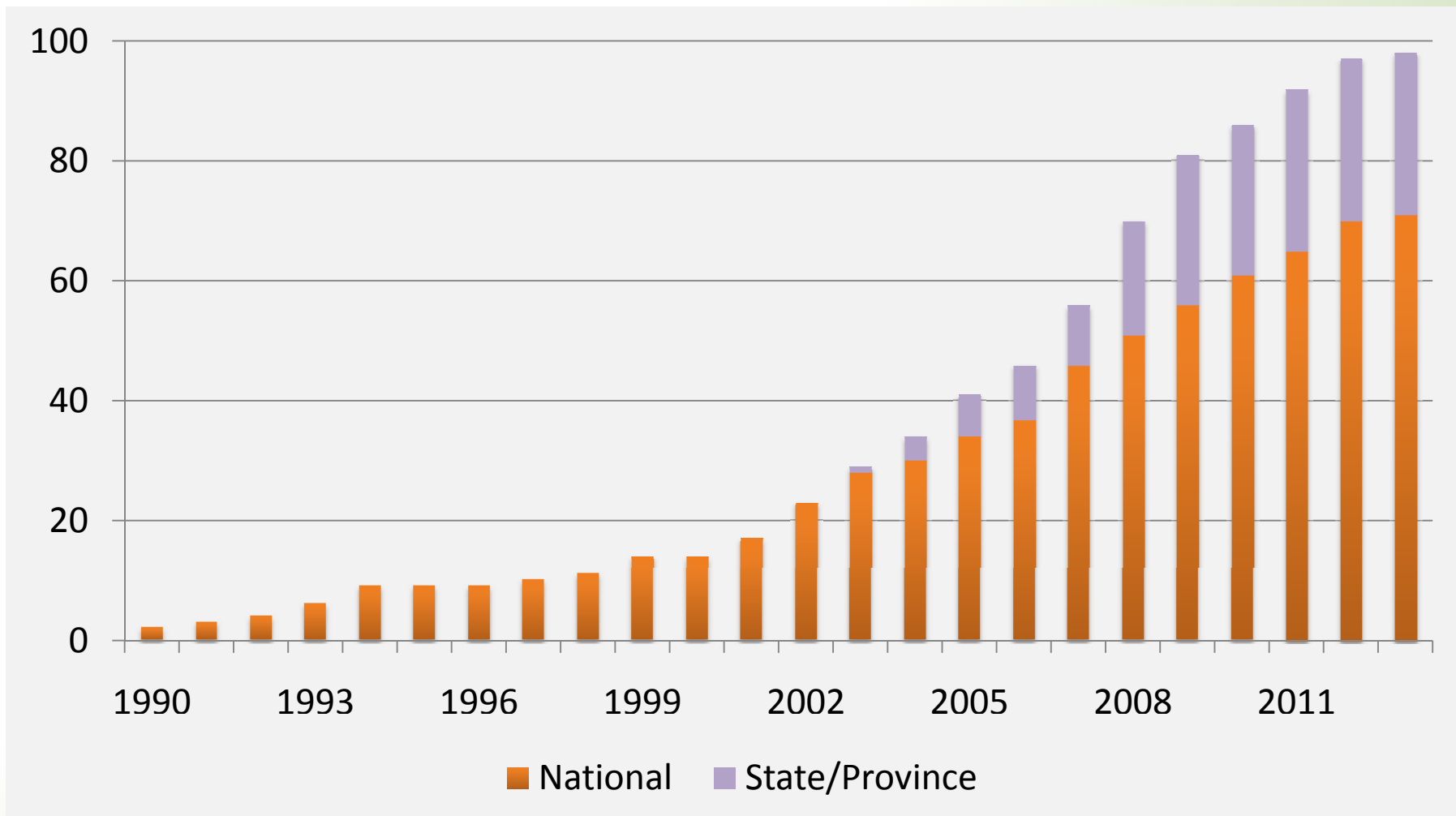
## Expected jobs in Renewable Energy - 2030







## Feed-in tariff policies for renewable energy (Trend world-wide 1990-2013)







# Good news – Bad news



*“1.3 million workers in the coal industry and 500,000 in steel will be cut. The employees would be reallocated”.*

(Source: Bloomberg, 29 February 2016, quoting Minister Yin Weimin for Human Resources Development and Social Security)

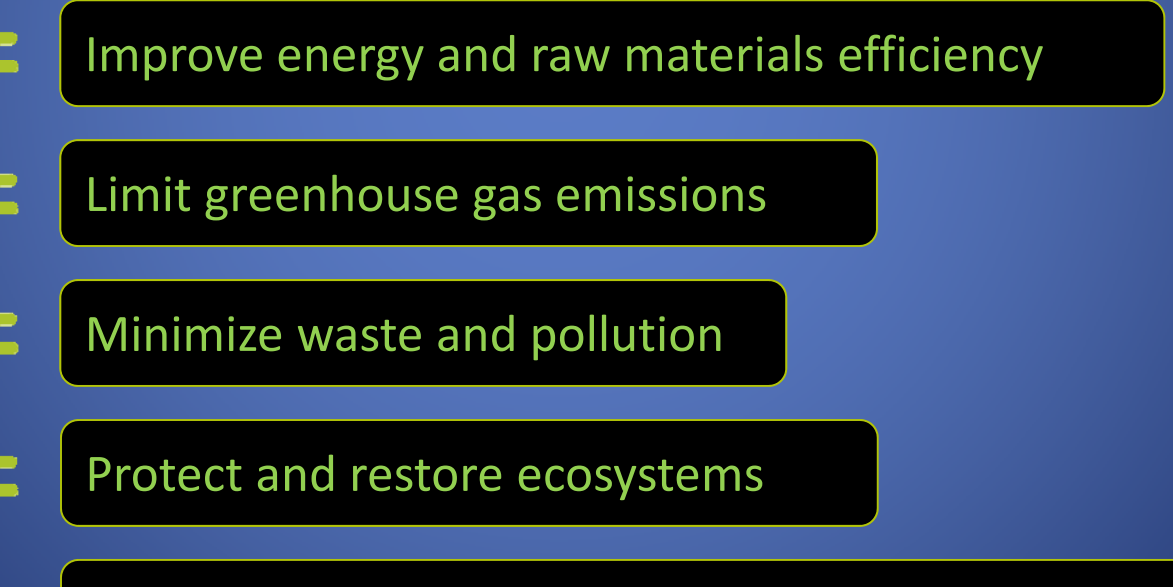
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# Employment transition

EFFECT	EXAMPLE
<b>New job creation</b>	Renewable energy sector; energy performance service companies; mobility services
<b>Elimination</b>	Some types of mining Packaging (materials discouraged or banned)
<b>Substitution</b>	Shifting from fossil fuels to RE&EE, automobiles to mass transit, waste disposal to recycling, primary metals production to secondary production
<b>Transformation</b>	Existing jobs greened along with changed workplace practices and methods. Supply-chain effects outside green (e.g. steel for wind turbines)

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The infographic features a vertical line on the left side with five electrical plug icons. Each plug is connected to a horizontal bar of a different color, which contains one of the five pillars of the Paris Agreement. The bars are arranged from top to bottom in the following order: blue, orange, green, red, and purple.

- Improve energy and raw materials efficiency
- Limit greenhouse gas emissions
- Minimize waste and pollution
- Protect and restore ecosystems
- Support adaptation to the effects of climate change



## In practice:

### Process



- Reducing energy and resource intensity
- Eco-efficiency
- Reducing and recycling waste

### Product and services



- Organic agricultural products (certified)
- Green textiles (green labelling)
- Eco-tourism (certified)
- Green construction (certified)
- Green financing

### Nature conservation



- Ecosystem support
- Natural resource management



## Respect of the ILO International Labour Standards

## Equal opportunities, freely chosen, productive and gainful

## Decent salary, social protection coverage, occupational safety and health

## Freedom of association and collective bargaining

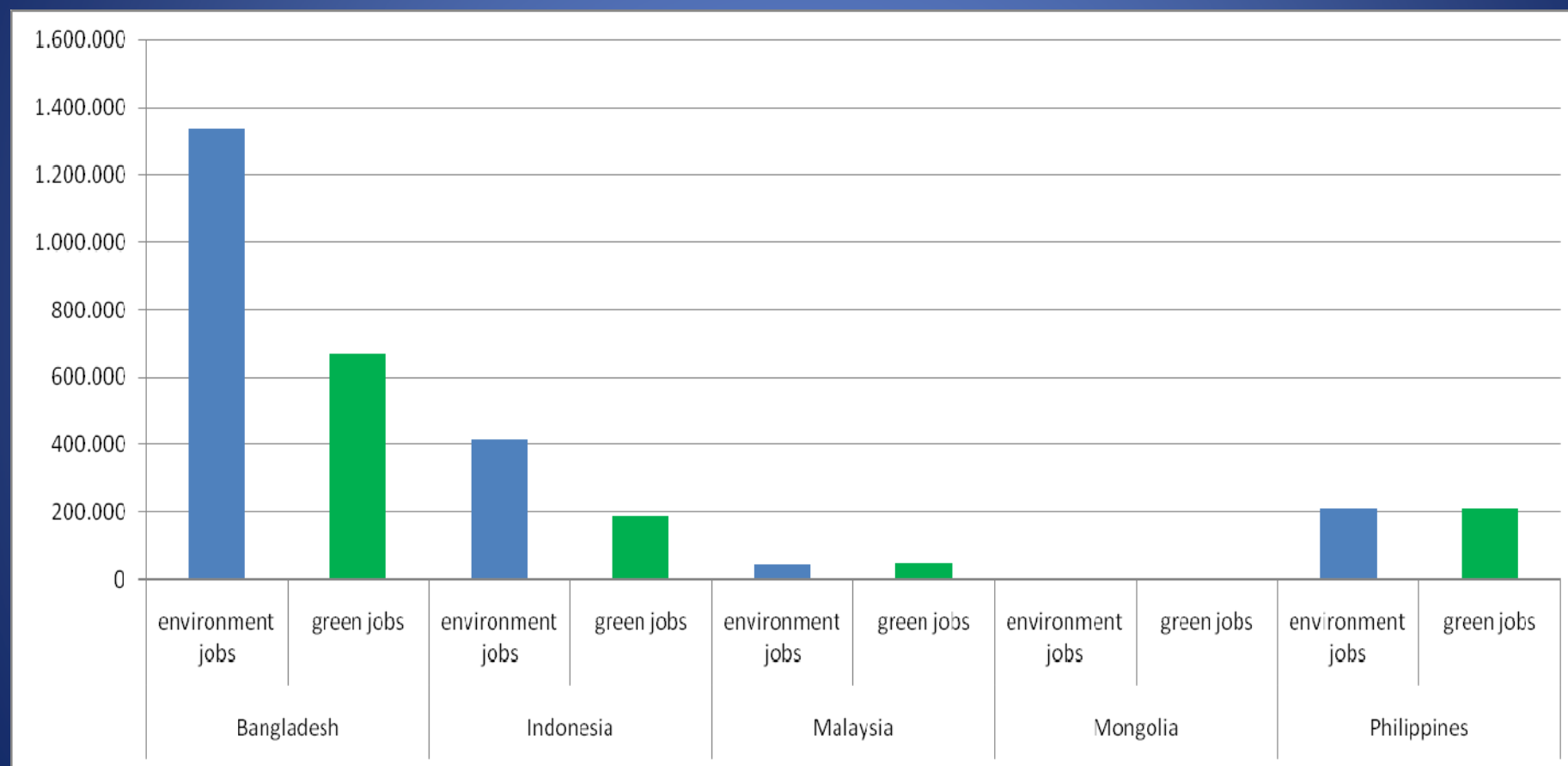
## Non discrimination

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# Green Jobs Mapping

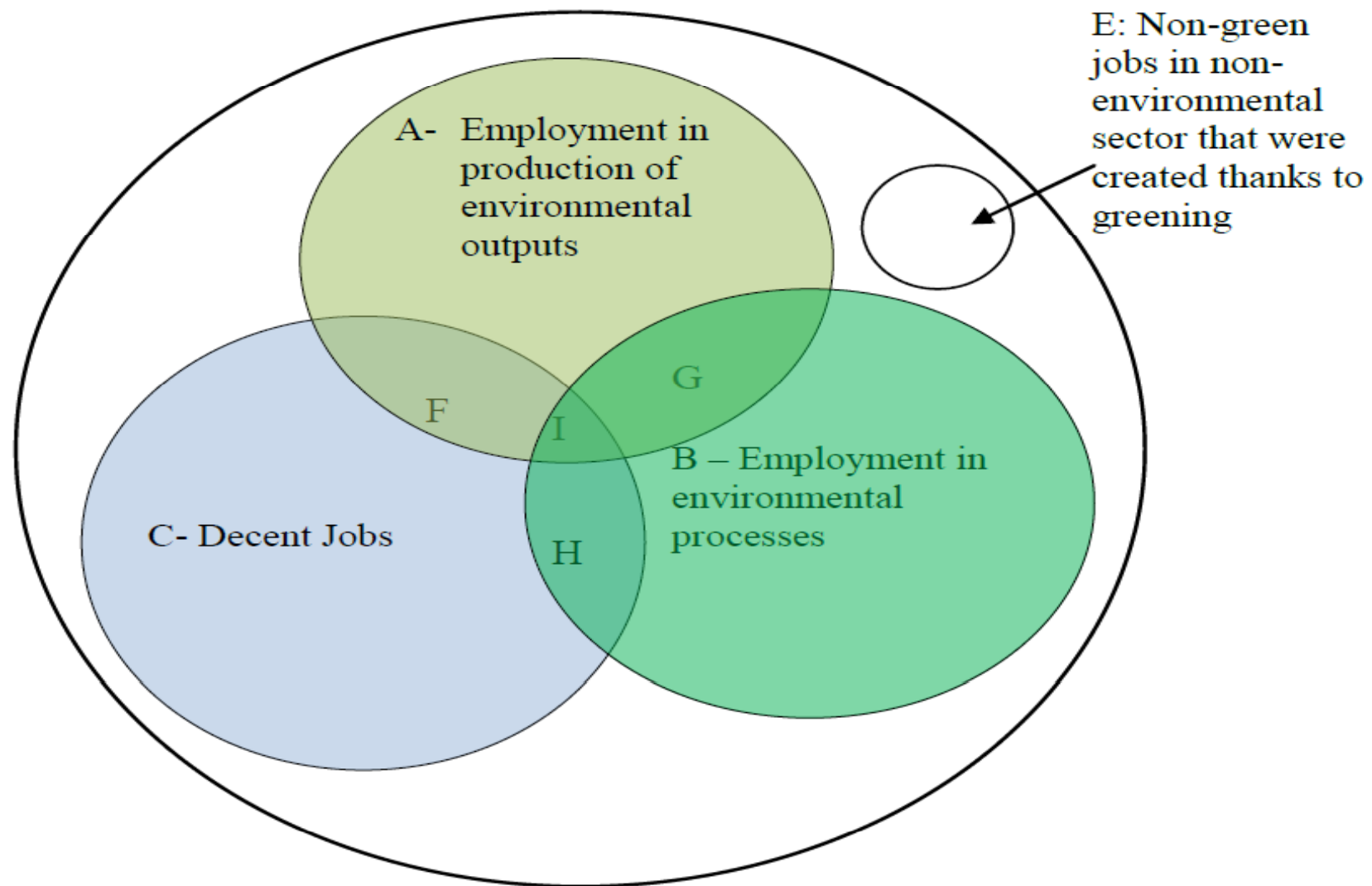
## Green Building & Construction



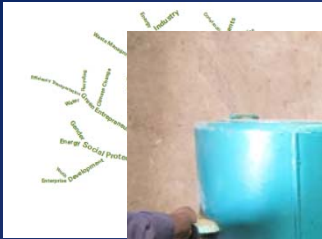
Source: ILO 2014  
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# Schematic relationships between total employment, green jobs and decent







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# What are Green jobs?



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# The potential for Green Jobs

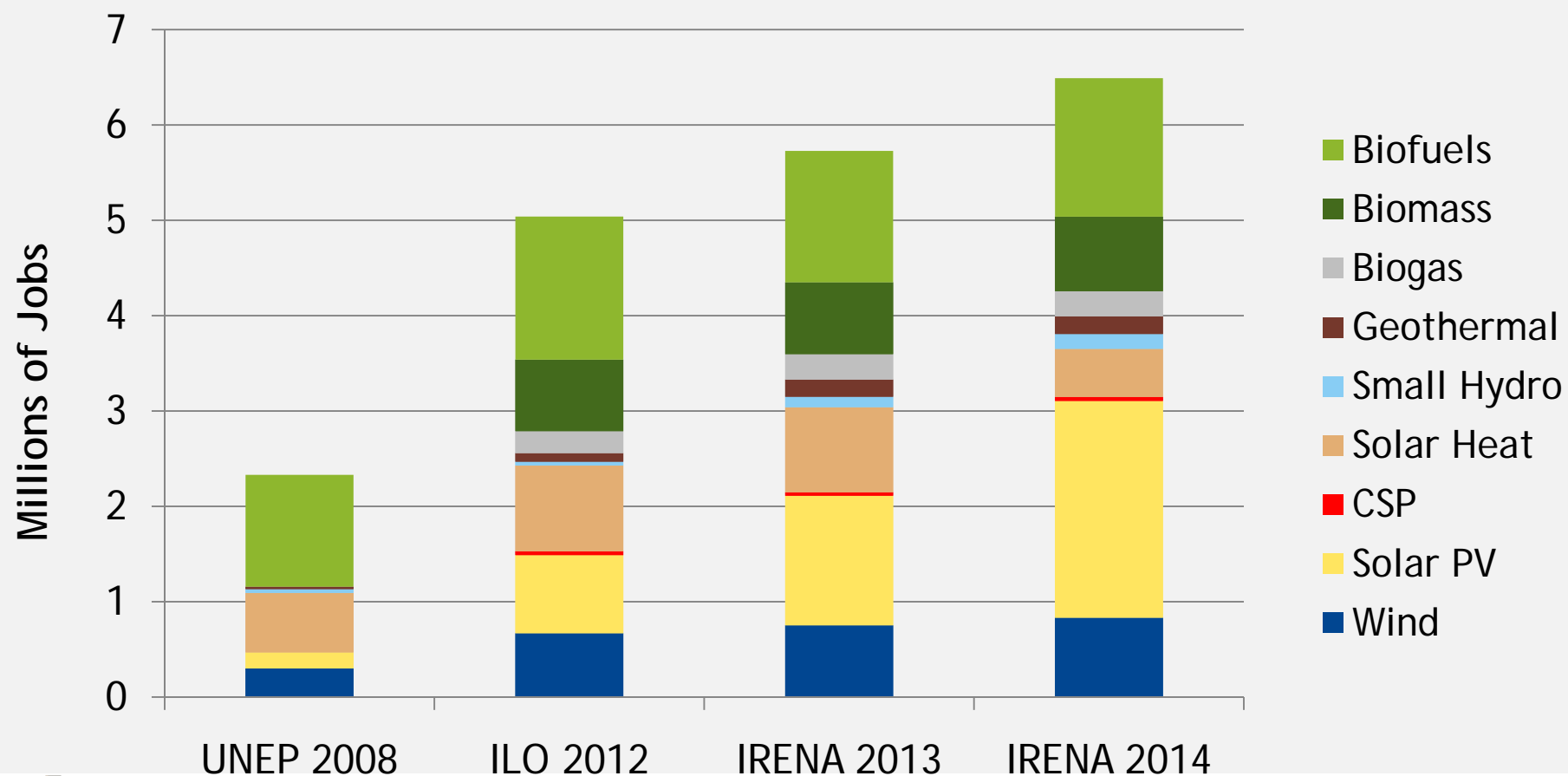


[https://www.youtube.com/watch?v=uPG\\_PovluyQ&index=5&list=PL635910AB8F27F3A0](https://www.youtube.com/watch?v=uPG_PovluyQ&index=5&list=PL635910AB8F27F3A0)

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# Global Renewable Energy Employment Assessments, 2008-2014





## 4. What is ahead: aligning SDGs, sustainability and jobs



### Goal 7 Energy

- Ensure universal access to affordable, reliable and modern energy services
- Increase substantially the share of renewable energy in the global energy mix development

### Goal 12 Sustainable consumption and production

- Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

### Goal 13 Climate change

- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

African manufacturing enterprises lose up to 20% of sales revenues due to power shortage, costing 2.1% of GDP on average, World Bank

Resource intensive-economies will cost global productivity drops of 2.4 % by 2030 and 7.2% by 2050, while sustainable pathways increase total factor productivity, ILO

In the Asia Pacific region, the costs of climate change to the workforce due to both health care and lost wages is likely to be \$10 billion to \$20 billion per year by 2030, Lancet Commission

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# The Green Centenary Initiative

Strengthening **our ability to act:** tackling the challenges of the transition with new tools and approaches

Capacity building of ILO constituents and staff

Pilot application of the Just Transition Guidelines

Scaling up development cooperation programmes (social protection, skills, entrepreneurship, job creation and green work, labour migration, social dialogue)

.. using Green Jobs Packages

Bolstering our capacity to lead: pushing the frontiers of **knowledge**

Flagship report on climate change, decent work and just transition

Country assessments to understand the labour market impacts of NDCs  
– as part of Just Transition

Acting through strategic **partnerships and office-wide engagement**

Strategic partnerships (ITUC, IOE, OECD, UN System)

Engagement in international processes on climate change

Office-wide engagement





## International Labour Conference on Green Jobs, 2013

- ❑ **Common Vision** - “Achieving decent work, green jobs and sustainable development”
- ❑ **Guiding principles** for the greening of economies, enterprises and jobs, including the need for building strong social consensus on the goal and pathways to sustainability.
- ❑ The important role of **social dialogue** and respect, promotion and realization of **fundamental principles and rights at work**.



# Tripartite Agreement

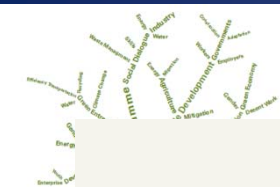
- “...transition to a greener economy could help reach many social goals over the next 20 to 30 years, including creating 15 to 60 million additional decent jobs” ...**ILO**
- “Employers believe that proactively addressing higher energy efficiency and environmental issues of resource use...helps to enable long-term sustainable growth” ...**Employers**
- “The transition has to create green and decent jobs and should not make workers the variable of adjustment. The world needs an ambitious transition towards environmental sustainability and workers want it to be a just transition” ...**Workers**



## 2015 ILO Tripartite Expert Meeting: Guidelines for a Just Transition

- Anchor in COP21 Paris Agreement: “Recognizing the imperative of a *just transition* of the workforce and the *creation of decent work and quality jobs* in accordance with nationally defined development priorities”
- Building on ILC 2013 Conclusions
- Consensus among 8+8+8 experts, mix of countries;
- Founded on fact-based background Report
- With recommended practical follow up by Governments, Social Partners and ILO Office
- Provides a model of change to reach relevant SDGs
- Vehicle for « Green Centenary Initiative»

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# Guidelines for a Just Transition for all

1. Policy coherence and effective institutional arrangements

2. Social Dialogue

## Macro/Sector

Macroeconomic

Industrial and sector

## Employment

Enterprises

Skills

Labour market

## Social Protection

Occupational safety and health

Social protection

Th



# Guidelines for a Just Transition for all

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Macro/Sector

Macroeconomic

Industrial and sector

Lab.  
Stand  
ards

Employment

Enterprises

Skills

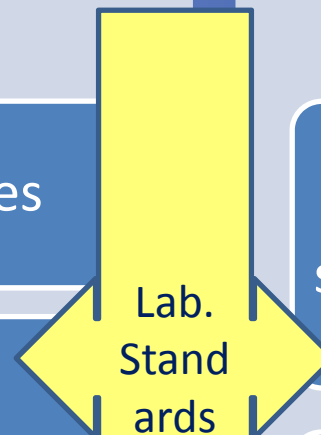
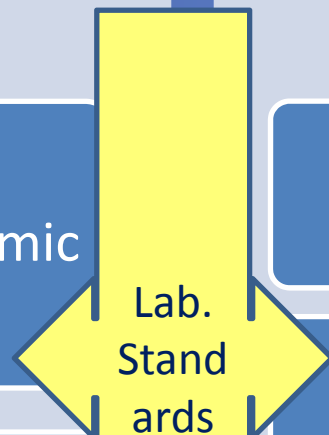
Labour market

Lab.  
Stand  
ards

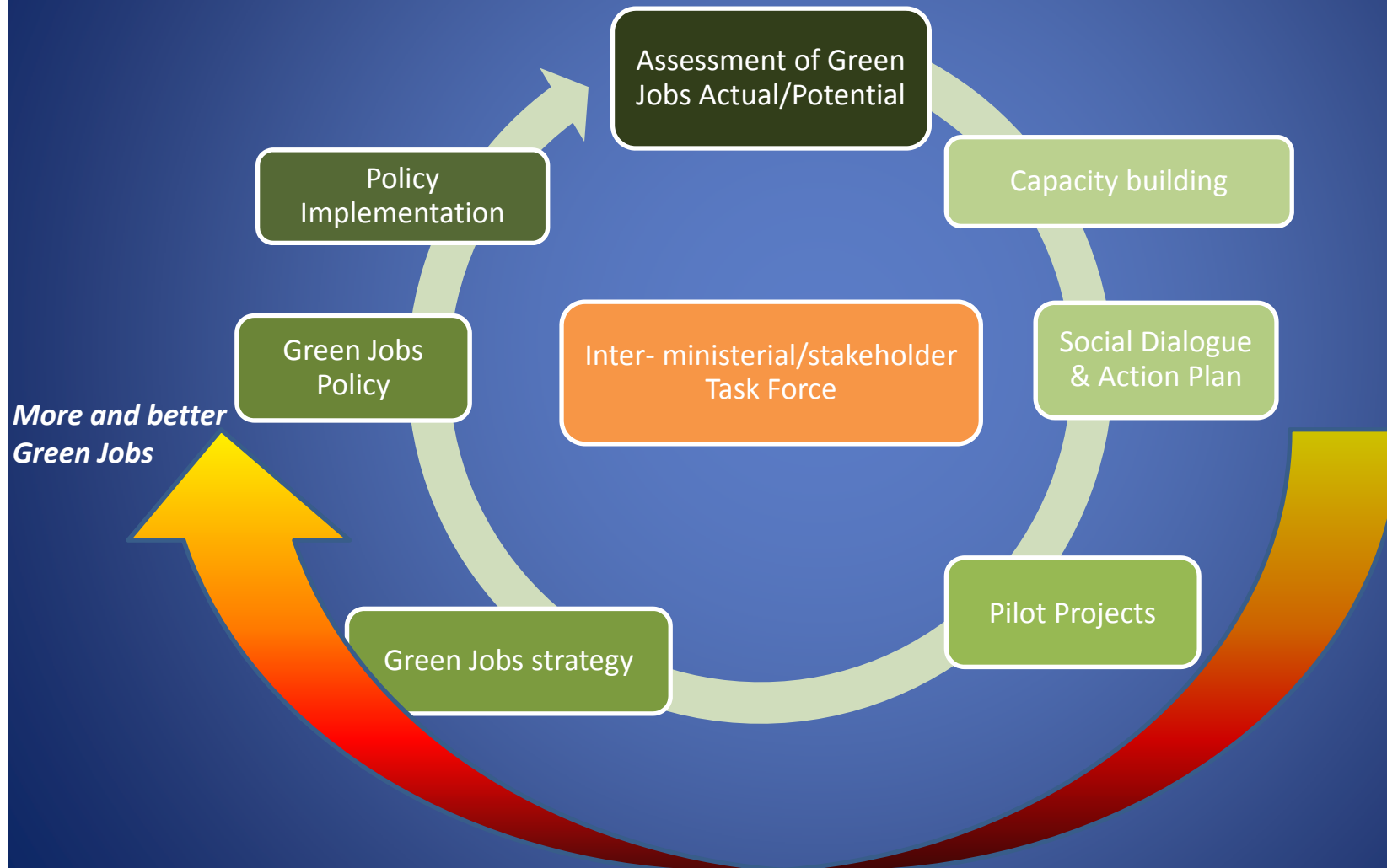
Social  
Protection

Occupational  
safety and health

Social protection



# Just Transition Program Cycle



# Skills development is key to facilitate a just transition

## Bangladesh SHS

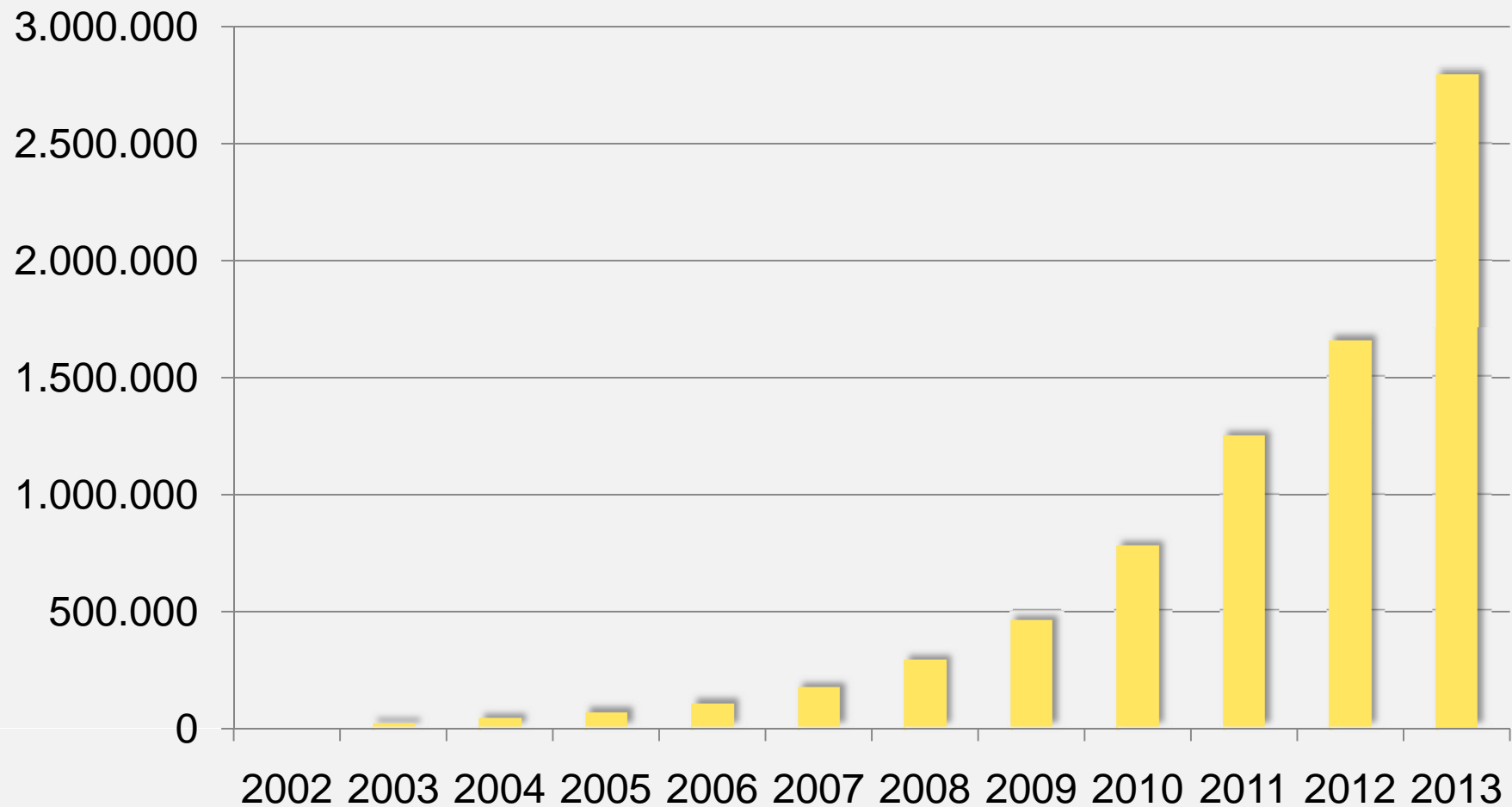
Bringing green energy and green jobs to Bangladesh

[http://www.youtube.com/watch?v=uPG\\_PovluyQ&index=4&list=PL635910AB8F27F3A0](http://www.youtube.com/watch?v=uPG_PovluyQ&index=4&list=PL635910AB8F27F3A0)





## Bangladesh—SHS Installations, 2002-2013



Sources: IDCOL, Barua

Installations of 80,000 SHS per month



# Occupations in Solar Power

Equipment Manufacturing	Utility-scale Plants:			Residential, Commercial PV
	Project Development	Construction and Installation	Operations and Maintenance	Sales, Installations, Maintenance
<ul style="list-style-type: none"> <li>• Engineers (chemical, electrical, mechanical)</li> <li>• Technicians</li> <li>• Semiconductor processors</li> <li>• Machine-tool operators</li> <li>• Welders, Solderers &amp; Brazers</li> <li>• Coating &amp; painting workers</li> <li>• Glaziers</li> <li>• Electrical &amp; electronic assemblers</li> </ul>	<ul style="list-style-type: none"> <li>• Project managers</li> <li>• Atmospheric scientists and meteorologists</li> <li>• Land acquisition / development specialists</li> <li>• Permitting specialists</li> <li>• Land surveyors</li> </ul>	<ul style="list-style-type: none"> <li>• Project managers</li> <li>• Civil engineers</li> <li>• Construction workers</li> <li>• Welders, iron &amp; steel workers</li> <li>• Pipefitters (CSP)</li> <li>• Electricians</li> </ul>	<ul style="list-style-type: none"> <li>• Plant Managers</li> <li>• Power plant operators</li> <li>• Electricians</li> <li>• Electrical engineers</li> <li>• Pump operators (CSP only)</li> <li>• Plumbers, pipefitters &amp; steamfitters (CSP)</li> </ul>	<ul style="list-style-type: none"> <li>• Wholesalers</li> <li>• Retailers</li> <li>• Site assessors</li> <li>• Architects</li> <li>• Roofers</li> <li>• Electricians</li> </ul>



## All videos

### Renewable in action - Country illustration

Solar water pumping in the state of Karnataka, India

<http://www.youtube.com/watch?v=SDOq3BIZMj8>

### Clean energy entrepreneurs powering rural areas

East Africa (Kenya and Uganda) solar lighting and biogas technologies

Promoting green entrepreneurship in East Africa

<https://www.youtube.com/watch?v=M-EDC7urqx0&list=PL635910AB8F27F3A0&index=3>

### Skills for renewable energy jobs - Bangladesh SHS

Bringing green energy and green jobs to Bangladesh

[http://www.youtube.com/watch?v=uPG\\_PovluyQ&index=4&list=PL635910AB8F27F3A0](http://www.youtube.com/watch?v=uPG_PovluyQ&index=4&list=PL635910AB8F27F3A0)





## Resources on line

- ILO Green Jobs Programme:  
[www.ilo.org/greenjobs](http://www.ilo.org/greenjobs)
- Green Jobs Training Platform:  
<http://greenjobs.itcilo.org>