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GREENER
BUSINESS ASIA



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Policies as drivers of green jobs

SESSION 3

Mr Vincent Jugault

Senior Specialist in Environment and Decent Work

ILO Regional Office for Asia and the Pacific

Bangkok, Thailand



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Outline



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1. Introduction – the great transformation
2. Impact of sustainability on jobs
3. Trends in green job creation
4. Building the policy framework
5. Achievements and lessons of the Green Jobs Initiative



1. Introduction – the great transformation

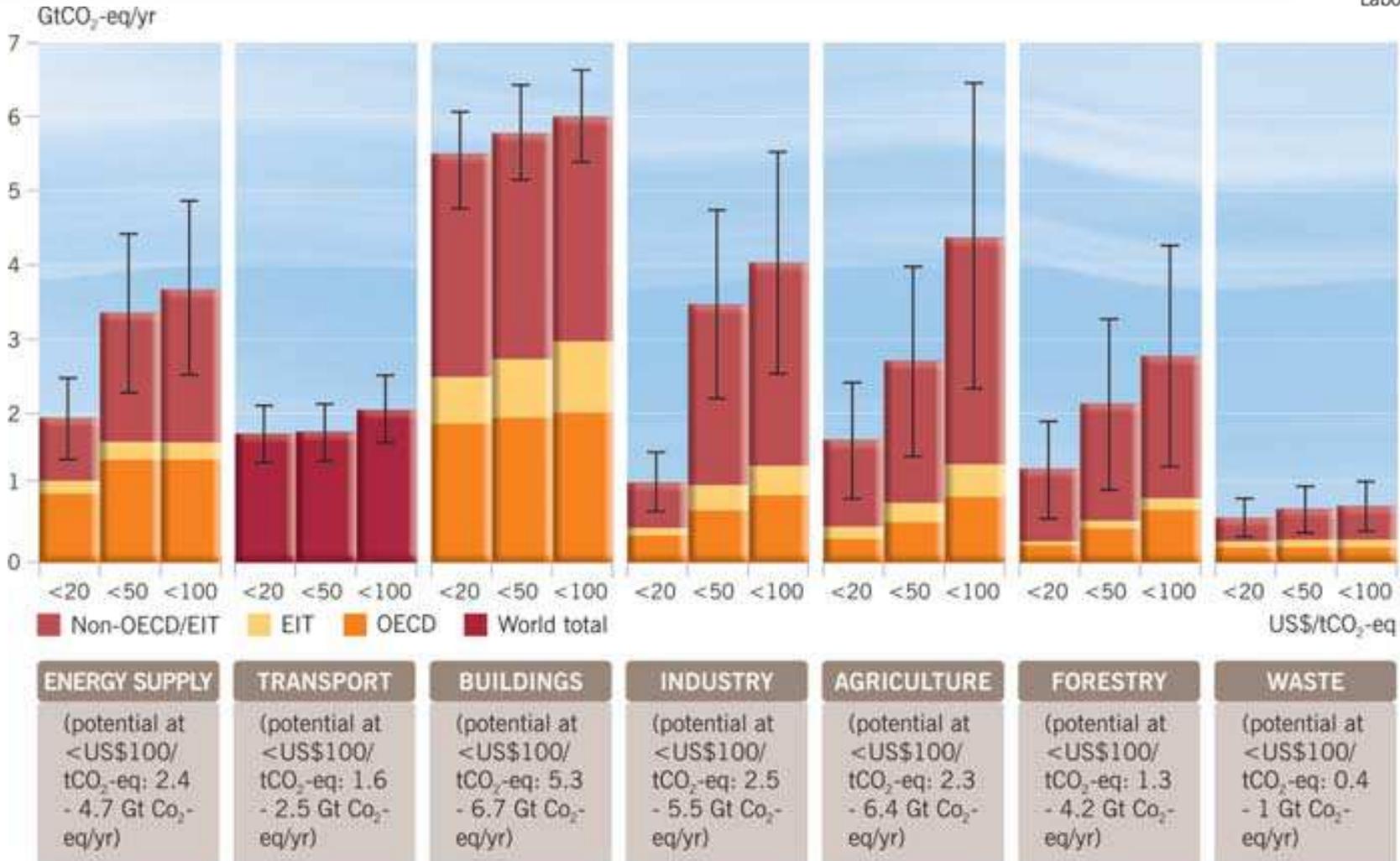
- **Impact of the transformation on economic sectors**
 - **New sectors will emerge (eg. Renewable Energy, etc.)**
 - **Energy Intensive Industries (Ells) most exposed to change (energy, pulp & paper, steel, chemical, etc.)**
 - **Expansion of ‘green’ sectors (recycling economy, eco-tourism, etc.)**
 - **Most sectors will evolve (manufacturing, construction, transport, etc.)**



1. Introduction – the great transformation



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2. Impact of sustainability on jobs



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Impact on jobs	Examples
Created	Manufacturing of green technologies, green equipment, green services
Substituted	Shifting from fossil fuels to renewables
Eliminated	Packaging materials are discouraged or banned and production is discontinued, mining of asbestos
Transformed and redefined “greening”	Skills sets, work methods and profiles of plumbers, electricians, metal workers, and construction workers greened

- Resource productivity will improve
- Impact on labour productivity?



2. Impact of sustainability on jobs



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- **Most studies show that climate smart policies would have positive or neutral net employment impacts**
- **However, there will be shifts in the labour market from high environmental impact jobs to low environmental impact jobs**
 - **38 % of labour force in EIs (ILO, 2009)**
- **Green investments more employment intensive (energy)**



2. Impact of sustainability on jobs



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- **Positive and negative employment effects**
 - **Opportunity for companies and regions to become leaders in green innovation**
 - **Adjustment costs for workers and communities dependent on fossil fuels, or companies that are slow to rise to the environmental challenge**
- **Public policy should seek to minimize disparities among winners and losers and avoid these distinctions becoming permanent features**
 - **Just Transition Framework addresses this issue**



3. Trends in green job creation



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Bangladesh – 3.5 million core environment-related jobs

Sectors	Core env-related jobs	Direct 'Green' jobs	Indirect jobs
Sustainable agriculture	41,548	n.p.	47,482
Sustainable and participatory forestry	28,813	n.p.	28,121
Sustainable energy	18,823	18,823	50,561
Waste management and recycling	189,180	n.p.	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





3. Trends in green job creation

China – 30.76 million jobs from 2005-2020

Sectors	Sub-sectors	Direct Employment	Indirect Employment	Sub-total
Forestry (2005-2020)	Afforestation & Reforestation	7,600,000	11,085,000	18,685,000
	Sustainable Forest Management	188,000	61,000	249,000
	Forest tourism	3,154,000	3,616,000	6,770,000
Power Industry (2005-2020)	Thermal Power	251,000	29,000	280,000
	Wind power	848,000	2,309,000	3,157,000
	Solar power	50,000	1,237,000	1,287,000
Core Industry	Iron and Steel (2007-2011)	-200,000	—	-200,000
Green investment (2008-2011)		175,000	357,000	532,000
Total^[1]		30,760,000		

Source: Chinese Academy of Social Science (CASS)/ILO project, 2010.

* Sum total is only for reference, as it includes incomparable data between sectors like forestry and iron and steel due to use of different methodology and data resources. Some of the employment data in this table is average value.

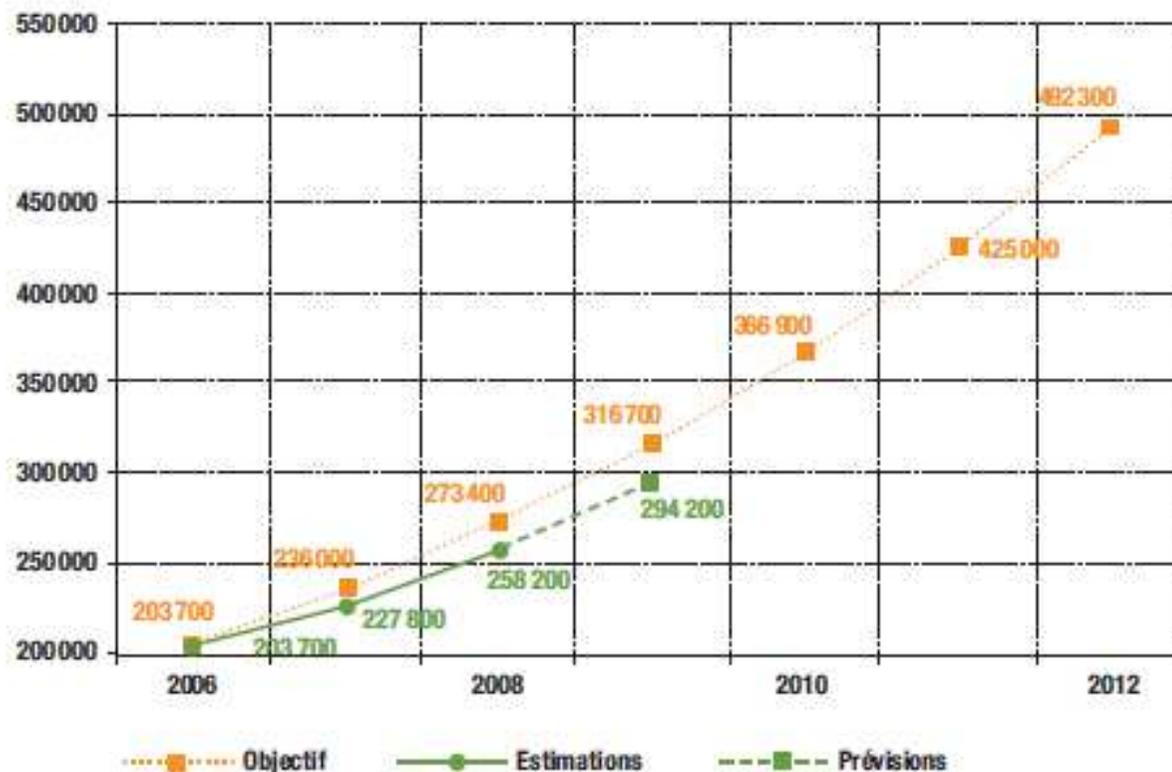




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3. Trends in green job creation

France - almost 290,000 direct jobs and 3.5 million core env-related jobs (growing at 13% per year)



Source : ADEME/In Numeri ; emplois directs en équivalents temps plein.





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3. Trends in green job creation

Brazil

- **2.65 m formal green jobs (comprising 6.7% of the formal labour market)**
- **Growing faster than overall labour market**
- **For example, approx. 60,000 workers in formalized recycling industry**
 - **Several 100,000 informal**
 - **Cooperatives, service contracts, installations, fair wages and OSH**
 - **Tax reductions if recycling via co-operatives**





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3. Trends in green job creation

- **Key sectors for green jobs creation under the Green Economy : Agriculture, Green Buildings, Cities, Energy, Finance, Fisheries, Forests, Manufacturing, Tourism, Transport, Waste, Water**
- **Opportunities exist for more Green Jobs**
- **Sector based, country specific – need to properly identify them**





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3. Trends in green job creation

Global Market Trends in Food Production

- **Certified sustainable coffee increased by 400% (last 5 years), 8% of global coffee exports**
- **Sustainable tea production has grown by 5,000% (last 5 years), 7.7% of global coffee exports**
- **Sustainable banana sales have grown by 63% (last 2 years), 20% of global exports in 2009**
- **Sustainable cocoa sales increased by 248% (last 5 years), 1.2% of global sales in 2008**

UNCTAD, October 2010





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3. Trends in green job creation

Global Market Trends in Food Production

- Booming world markets
- Starting from a very tiny market
- Job substitution mainly - it is about maintaining jobs
- Asia lagging behind





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3. Trends in green job creation

Ecotourism

- In the early 1990s, ecotourism was the fastest growing sector of the tourism industry, expanding globally between 20% and 34% per year
- In 2004, growing 3 times faster than the global tourism industry as a whole (UNWTO)
- Could grow to 25% of the world's travel market, by 2012
- Large potential for job creation, youth employment

EcoTourism World Congress, Vientiane, 2009

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3. Trends in green job creation

Manufacturing

“Going Green is not an option.

It is a question of survival.

It is about maintaining jobs”.

Brandix, Garment Company, Sri Lanka, January 2011

- **LEED certification,**
- **Energy, water, waste**
- **Improved working conditions of workers,**
- **Enhanced productivity**





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4. Building the policy framework

Legislation/Regulation

Green Jobs Act
Feed in Tariffs
Employment Guarantee Schemes

Procurement

Hybrid/Electric cars
retrofitting of public buildings

Investments

Green stimulus packages with
employment targeting
Green finance

Skills

Green jobs observatories
Green apprenticeship programs

Economic instruments

Carbon tax
Cap-and trade
Green subsidy reforms

Social protection

Extended SP (disaster prone areas)
SP schemes in brown industries
UN SP Floor Initiative

Provincial/local initiatives

Low-carbon cities
Eco-industrial parks
Public-Private Partnerships

Social dialogue

Multi-stakeholders Task Force
Round tables/Dialogue schemes





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4. Building the policy framework

Legislation/regulations

- **The Green Jobs Act (USDOL, 2007), enacted under the Energy Bill (2007).** Sets a multi-stakeholders committee which reports periodically on assessed needs for Green Jobs and facilitates access to financial schemes for the development of a skilled workforce in energy efficiency and renewable energy.
- **The National Employment Decree creating the Centre and National Employment Fund (Fiji, 2009).** Aim to provide for quality services relating to employment creation and productivity, the promotion of green jobs and green industries.





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4. Building the policy framework

Social dialogue

- **Multi-stakeholders Task Force on Climate Change and Green Jobs (India, 2009)**

Government (DOL) and social partners decide on actions on green jobs

- **The Grenelle Environment Round Tables (France, 2007)**

Dozens of round tables to pave the way towards a new form of competitive green economy. Paved the way for ground breaking new legislation, Green Jobs Action Plan, etc.

- **Green Pact signed by constituents (Philippines, Dec 2009)**

Government, workers, employers, academic societies, inter alia, agreed to take active steps to promote sustainable growth, greener jobs and workplaces.





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4. Building the policy framework

Green skills

- **ILO's G20 Training Strategy – A Skilled Workforce for Strong, Sustainable and Balanced Growth**
 - **Skills shortages already pose a major barrier to green transitions and job creation**
 - **Need to facilitate the adjustment of labour markets**
 - **Policy coordination challenge to combine skills policies and environmental policies**
- **Greening of existing Competency Standards versus new Green Competency standards**
- **Greening C.S. based vocational training policies**
- **Youth Apprenticeship Programs for Green Jobs**



4. Building the policy framework



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Green stimulus: Korean Green New Deal - \$30.7 billion

Projects	Jobs to be created (thousands)	Share of total funding (%)
Revitalization of four major rivers	200.0	28.7
Eco-friendly transportation networks	138.1	19.2
National green information infrastructure	3.1	0.7
Water resource facilities and mgmt	16.1	1.9
Green cars and clean energy	14.3	4.1
Recycling resources	16.2	1.8
Forest restoration	133.6	4.8
Energy conservation	170.7	16.0
Environmentally-friendly living space	10.8	1.0
Other green related projects	257.1	21.8





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4. Building the policy framework

Other green stimulus packages in Asia

Country	Green Fund % total GDP	Green spending (USD)	% of economic stimulus	Estimated jobs	Types of investment
Japan	0.74%	12.25 b	6%	1 million	Energy-saving, renewables, high-speed railway, R&D
Singapore		680 m	4.96%	11,000	Technology, clean energy
Thailand				40,000	Biofuels, cogeneration
Philippines				110,000	Reforestation, renewable energy in rural areas, retrofitting public vehicles



5. Achievements and lessons of the Green Jobs Initiative



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1. Demonstrate that environment and job creation can be mutually supportive

- Opportunities exist in each country for more Green Jobs, including for the poor
- Expected small positive employment impacts from the green transition

2. The recognition of the role of the World of Work at all levels of decision making and social dialogue



5. Achievements and lessons of the Green Jobs Initiative



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3. Recognition of the Need for a Just Transition for workers and enterprises to adapt to a changing environment in the Cancun Agreement.

4. The green transition has started in the region and globally – great disparity in Asia & the Pacific between countries, sectors

5. Green jobs is becoming central to the policy agenda in many countries



5. Achievements and lessons of the Green Jobs Initiative



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Challenges:

- Identify opportunities in every country
- Enhance capacity of the social partners
- Address the gaps in green skills
- Monitor green jobs creation
- Create green jobs for youth
- Enhance integrated policy making
- Develop integrated services to sustain the development of green jobs



Additional slide: Diversity of green jobs



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A cross-walk from environmentally friendly activities to green jobs

Mitigation - GHGs reduction and capture	energy supply, energy demand, prevention of emissions from biological sources, biological carbon sink services, etc;	EDUCATION, TRAINING, RESEARCH, MONITORING & CONTROL, PLANNING, ADVOCACY AND ACTIVISM, FINANCIAL & INSURANCE SERVICES, etc,
Biodiversity conservation, natural resource Mgt	Ecosystem management, conservation, sustainable agriculture, sustainable forestry, sustainable natural resource management, etc.	
Desertification prevention	Adaptation to desertification, land use planning	
Water	In-land water services, water harvesting, sustainable agriculture, water efficiency (building).	
Pollution control	environmental goods and service industry (OECD, 1999): air pollution control, waste management, waste water management, monitoring and auditing, etc;	
Air emissions prevention		
Waste water		
Waste, soil decontamination		
Adaptation to climate variability	Climate related disaster management (preventive, reactive action related services)	
Adaptation to climate change	Agricultural services, health related services, natural resource management services, etc	
Eco-system services	Environmental services, eco-tourism, etc;	

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Additional slide: Measuring & monitoring the difference



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Sector	Example of environmental standard/voluntary code
Organic Agriculture	<ul style="list-style-type: none">• SNI 01-6729-2002 (Indonesian National Standards) on Organic Food System by National Standardization Agency of Indonesia
Green Building and Construction	<ul style="list-style-type: none">• SNI 03-6759-2002 (Indonesian National Standards) on Codes for Energy conservation designation of buildings; Green Star (Australia)
Green Finance	<ul style="list-style-type: none">• Principles for Responsible Investment (UN- PRI)
Sustainable Fisheries	<ul style="list-style-type: none">• Sustainable Fisheries Marine Stewardship Council Fishery Standards
Sustainable Forestry	<ul style="list-style-type: none">• Forest Stewardship Council (FSC)
Tourism	<ul style="list-style-type: none">• Tourism Green Globe 21 Standard
Manufacturing and Industry	<ul style="list-style-type: none">• (ISO) 14064 of Greenhouse Gas Accounting and Verification



Additional slide: Examples of potential green jobs



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- Mangrove planter
- Mechanic for CNG propelled buses
- Manufacturer of fuel efficient car
- Farmer in certified organic food production
- Workers in certified sustainable forestry
- Architects and engineers designing renewable technologies and energy efficiency products
- Worker in energy generation from biomass



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Thank you

For more information, please contact:
Mr Vincent Jugault

ILO Regional Office for Asia and the Pacific

Tel: 662 288 2304, Fax: 662 288 3062

E-mail: jugault@ilo.org

www.ilo.org/asia

