Green Jobs in A&P
An overview

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1. Policies in A&P and beyond

Korea: targetted recovery
France: national policy – local employment
Brazil:
  - Waste management and recycling
  - Social housing
India: Employment Guarantee Scheme
China: Modeling/research, Policy
Others
Korea Green New Deal: employment targeting

<table>
<thead>
<tr>
<th>Project</th>
<th>Jobs</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refurbishment of the four rivers</td>
<td>199,960</td>
<td>14,477.6</td>
</tr>
<tr>
<td>Eco-friendly traffic network (railroads, etc.)</td>
<td>138,067</td>
<td>9,653.6</td>
</tr>
<tr>
<td>National green information (GIS) infrastructure</td>
<td>3,120</td>
<td>371.7</td>
</tr>
<tr>
<td>Water resource facilities (small and midsize dams)</td>
<td>16,132</td>
<td>942.2</td>
</tr>
<tr>
<td>Green cars and clean energy</td>
<td>14,348</td>
<td>2,052.7</td>
</tr>
<tr>
<td>Recycling resources (refuse-derived fuel, etc.)</td>
<td>16,196</td>
<td>930.0</td>
</tr>
<tr>
<td>Forest restoration</td>
<td>133,630</td>
<td>2,417.4</td>
</tr>
<tr>
<td>Energy conservation village and school</td>
<td>170,702</td>
<td>8,050.0</td>
</tr>
<tr>
<td>Environmentally friendly living space</td>
<td>10,789</td>
<td>483.8</td>
</tr>
</tbody>
</table>

Source: Ministry of Strategy and Finance
• Direct employment: Close to 290,000
• Growing at + 13% [2009]
France: linking national green policies to local green jobs

**Green**: Direct employment 13% growth/y

- **Buildings**: expected to double next 5y, 20% total building activity
- **Bottleneck** local response
- **Local employment offices** + stakeholders: train and prepare job seekers, SMEs
Brazil (1): Waste management & recycling

- ~ 60,000 workers in formalized recycling industry
- Several 100,000 informal
- Cooperatives, service contracts, installations, fair wages and OSH
- Tax reductions if recycling via coops
Brazil (2): sustainable forestry

• Guaranteed prices for non-wood forest products
• Rehabilitation degraded areas
• Income transfer – good jobs: use ILO guidelines

National Profile
• 2.65 m formal green jobs
• 6.7% formal employment
• Growing faster than overall labor market
## China - Projections

### Total employment effects of low-carbon development in major sectors (2005-2020) （1’000 jobs）

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Sub-sectors</th>
<th>Direct Employment</th>
<th>Indirect Employment</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry 2005～2020</td>
<td>Afforestation &amp; Reforestation</td>
<td>7,600</td>
<td>11,085</td>
<td>18,685</td>
</tr>
<tr>
<td></td>
<td>Sustainable Forest Management</td>
<td>188</td>
<td>61</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>Forest tourism</td>
<td>3,154</td>
<td>3,616</td>
<td>6,770</td>
</tr>
<tr>
<td>Power Industry 2005～2020</td>
<td>Thermal Power</td>
<td>251</td>
<td>29</td>
<td>279</td>
</tr>
<tr>
<td></td>
<td>Wind power</td>
<td>848</td>
<td>2309</td>
<td>3,157</td>
</tr>
<tr>
<td></td>
<td>Solar power</td>
<td>50</td>
<td>1,237</td>
<td>1,287</td>
</tr>
<tr>
<td>Core Industry</td>
<td>Iron and Steel (2007～2011)</td>
<td>-200</td>
<td>—</td>
<td>-200</td>
</tr>
<tr>
<td>Green investment (2008～2011)</td>
<td></td>
<td>175</td>
<td>357</td>
<td>532</td>
</tr>
<tr>
<td><strong>Total[1]</strong></td>
<td></td>
<td><strong>30,759</strong></td>
<td></td>
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</table>

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

[1] Here the simple measurement of sum total is only for reference, which includes incomparable data between sectors like forestry and iron and steel because different methodology and data resources. And some of the employment data in this table is average value.
- Link to 12th - 5 Year Econ Plan (2011-2016)
- For implementation in all provinces

- “Fully understand the importance of promoting green jobs”
- “Green jobs is among the approaches of new and important job creation in context of China transformation process towards a resource-saving and environment-friendly society”
- “Strengthen public service for employment, green job assistance (provinces)”
India – NREGA

Employment Guarantee Scheme
• Guarantees wage employment (law)
• Time bound Guarantee to get work within 15 days of demand
• Labor Intensive Works - No contractors and machinery

Regenerate natural resource base for sustainable rural livelihoods
• Water conservation & water harvesting
• Afforestation & fruit tree plantation
• Irrigation, Land development
• Flood control & protection, etc.

NREGA Achievements
• Distress migration reduced in many parts
• Financial Inclusion on an unprecedented scale: 69 million new Bank & Post Office accounts;
• Potential for Green Jobs creation: 70% works relate to ecological regeneration (ILO Study, 2010);
• Productivity effects of NREGA reported
<table>
<thead>
<tr>
<th>Country</th>
<th>Green Fund % of total GDP</th>
<th>Energy and Environment-Spending (USD)</th>
<th>Green Fund % of Economic Stimulus</th>
<th>Estimated Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>0.74%</td>
<td>12.25 billion</td>
<td>6%</td>
<td>1,000,000 j</td>
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<td>Philippines</td>
<td></td>
<td></td>
<td></td>
<td>110’000 j</td>
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<tr>
<td>Singapore</td>
<td>0.68 billion</td>
<td>4.96%</td>
<td></td>
<td>11,000 j</td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td></td>
<td>clean/new jobs 40’000j</td>
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The “green” initiatives cover energy-saving and new energy technologies; development of high-speed railway; investments in energy-saving and new-energy; research and development, including for carbon dioxide capture and storage.

Jobs to be created in reforestation, renewable energy in rural areas, retrofitting of public utility vehicles and the building of bicycle lanes for out of school youth.

11,000 jobs for environment and water technology, 7,000 for clean energy industry by 2015.

Alternative energy mix of 20% of energy demand by 2022. Jobs to be created in bio-fuels, co-generation from biomass and biogas.
2. ILO GJ Program – A&P

- Currently: 1.5 GJ Regular budget Staff
- 8.5 full time TC GJ staff before end 2010
- Field activities in 9 countries
- Increasing requests for assistance
- Mobilization of relevant ILO expertise at policy and programmatic level (ENT, SKILLS, ASIST, Crisis, OSH, KM, Youth, Social Protection, etc.)
- Enhanced collaboration with a range of external stakeholders, incl. ministries, UN Agencies, Institutes on SD, civil society (NGOs), etc;
A clustered approach

A - Development of analytical and decision supportive tools, research on green jobs (HQs, ROAP, COs); GHK model, ..

B - Information sharing, KM and training for ILO Constituents

C - Greening of ILO products: GBO, VCD, EIIP,

D - Policy support: key countries

E - Technical cooperation through GJ projects
ILO-ROAP GJ Field Activities

- RBSA/MDG-F pilot projects: India, Bangladesh, China (2008-2010)
- Greener Business Asia: the Philippines, Thailand (2009-2013)
- ILO Korea Partnership program: Green Jobs in EEIs
- Green Jobs Asia Project: Bangladesh, Indonesia, Nepal, Philippines, Sri Lanka
- OHS in Waste Management project: Fiji
- MDG-F project: the Philippines

- Demonstrates that environmental outcomes and social/employment outcomes are not necessarily incompatible (win-win opportunities)
- Need for Decent Work in the greening process (Green Industry Declaration, Manila, 09-11 September 2009)
- Need for a Just Transition for workers and enterprises to adapt to a changing environment
Paragraph 10 of the chapter:
The Conference of the Parties, “Realizes that addressing climate change requires a paradigm shift towards building a low-carbon society that offers substantial opportunities and ensures continued high growth and sustainable development, based on innovative technologies and more sustainable production and consumption and lifestyles, while ensuring a just transition of the workforce that creates decent work and quality jobs”.

Some of the challenges ahead

- GJ = DW relationship (ILO Agenda)
- The full recognition of the role of the world of work at all levels of decision making and social dialogue
- Raise capacity of the social partners
- Address the gaps in green skills
- Integrated approach to sustain the development of green jobs, encompassing employment services, skills programs, extended social protection for vulnerable, entrepreneurship in green businesses, etc