

## GGBP Case Study Series

# Policies for Green Skills and Job Creation in Korea

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Country: [Republic of Korea](#)

Sector(s): [energy, forests](#)

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The Government of the Republic of Korea estimated that an investment of USD 105 billion in green growth between 2009 and 2013 would bring about 1.18 million jobs in the country (PCGG, 2009b). To realize this potential impact on the labor market, a broad set of policy measures for green job creation, technology development, and vocational training were developed at various levels and sectors, covering young students to professionals.

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## Context

The Republic of Korea's economy grew rapidly and dramatically up to the 2000s through an active industrial policy and the development of high-tech manufacturing and energy-intensive heavy industry. However, this model has faced limitations, leading to a turn towards green growth as a means to spark innovation, job creation, improved energy security, and a better quality of life.

In the Republic of Korea, promoting a green economy is very much a government-driven

agenda. The Presidential Committee on Green Growth (PCGG), the top policymaking body under the strong mandate of the President, sent clear signals indicating the urgency of making the transition to a green economy. The government announced a fiscal investment plan equivalent to around USD 105 billion to implement the National Strategy for Green Growth between 2009 and 2013, which was expected to create about 1.2 million additional jobs in the country (PCGG, 2009b).

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## Approach

Jobs and skills have been central to the development of Korea's green growth strategy. The design of green skills policies was led jointly by the Ministry of Labor and the Ministry of Education and was aligned to the overall National Strategy for Green Growth and the Five-Year Plan (2009–2014) in accordance with the Green New Deal, Green Technology Roadmap, and National Green IT Strategy.

The Plan for Green Job Creation and Capacity Building focused both on highly skilled 'new generation' occupations in the green technology industry and on lower skilled existing industries such as transportation and construction, where the existing skills required green development (ILO, 2011). The aim was to train a pipeline of green-skilled workers and at the same time generate sufficient green jobs by investing in green industries.

Korea's labor policies on green job creation focused on:

1. Information management in developing systems for needs assessment and workforce monitoring to ensure a sustained match between demand and supply. This has been integrated into the existing economy-wide forecasting by the Ministry of Labor and the Ministry of Education and has also been addressed through a project by the Korea Research Institute for Vocational Education and Training to design and conduct a new national survey focusing on skills needs (ILO, 2011);
2. Green workforce development by vocational training. Some of the examples include training technical workers for new green industries, reskilling the workforce to improve the environmental standards of an existing industry, developing targeted green-skilled workers for small and medium-sized

enterprises and localities, and developing a national certification system for green industry;

3. Development of green professionals by investing in green growth to create demand for highly skilled professionals and investing in higher education to increase capabilities for research and development in the green service industry (PCGG, 2009b).

From the policy design to implementation, the government has consulted or partnered with the private sector and academia. The government established memorandums of understanding with industrial associations such as the Korea New and Renewable Energy Association, the Korea Financial Investment Association, and the Korea Ubiquitous City Association to provide green training programs. New national certification programs have been introduced, such as for emissions training experts and solar energy technicians. Some existing certifications have also been modified, such as by adding energy- and environment-related modules.

Businesses that provide green training can apply for government subsidies for training costs and employee wages during the training period. Incentives are also provided when the reskilling programs are conducted in partnership with universities, non-governmental organizations, or local entities.

The government also encourages industry-academy partnerships in the provision of skills development. One example is the 'Meister' schools (vocational high schools) where industries are involved in planning the curriculum, school management boards, and the recruitment of graduates. Another example is the Leaders in Industry-University Cooperation project where an industry invests in courses or projects that provide the practical skills required by the industry (Chung et al., 2013)

In addition to vocational or professional training, green growth is accommodated in primary and secondary education to lay the foundation for a future green workforce. Measures include a national curriculum, extra-curricular activities, and teachers' training (PCGG, 2009a).

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## Outcomes

Scattered positive indications of green skills development in the Republic of Korea are already visible, at both the national and the local level. At the national level, for instance, the National Office of Forestry announced that 66,487 new jobs would be created in 2009 from the sustainable management of forest resources. The Forest Tending program was launched in 2005 to create jobs for low-income and unemployed youth and is continuously increasing its budget and participants. Since the green growth announcement, the budget for the 2009 Forest Tending program has doubled..

In order to develop a skilled workforce in environmental studies, in 2006 the Ministry of Environment launched five specialized graduate schools in the area of climate change. Each school can receive up to KRW 100 million (approximately USD 0.1 million) per year for 10 consecutive years for programs focusing on climate change related topics such as national greenhouse gas (GHG) emission statistics, GHG mitigation strategies, climate industry management strategies, and the carbon market (Ministry of Environment, 2008).

Programs with a specific focus on social enterprise development was also created, such as Heukaslim, a non-profit program which promotes organic farming through research and development, production of organic fertilizers, usage of eco-friendly pesticides, consultations

for organic farming, and education and training programs on organic farming. Heuksalim demonstrates that social enterprises can create jobs and additional income for farmers as well as provide educational opportunities to develop skills and knowledge.

The above are only some examples demonstrating the current impacts of the green skill development plan in the Republic of Korea. It is not possible to assess the impacts of the plan on the Korean economy at the macroeconomic level at this stage (ILO, 2011).

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## Lessons

### Successful features

- *Use of diverse policy measures to address initial mismatch between supply and demand of green skills.* Both short- and long-term measures were used, from one-off vocational training programs to specialized graduate programs.
- *Alignment with overall green growth objectives.* The Republic of Korea's green skills development policy is mandated in the National Strategy for Green Growth and aligned with relevant cross-cutting policies on investment, innovation, and technology.
- *Coordination across ministries and the public and private sectors.* Several ministries such as the Ministries of Education, Labor, and Finance participated in the policy design through coordination by PCGG. Partnerships between industry and academia and the local authorities were key agents of implementation.
- *Clear identification and monitoring of new and emerging green occupations and the need to renew existing skills.* The Korea Employment Information Service published a list of 55

new generation occupations. The Ministry of Labor and the Ministry of Education report on workforce demand and supply forecasting at the national level every two years.

## Limitations

- A comprehensive system to identify needs regarding skills change and training still does not exist. Labor demand and supply forecasts at the national level have been drawn up every two years, focusing on the projected number of jobs available, but this exercise provides limited information about the level and/or type of skills needed (ILO, 2011).
- Current green skills development programs are focused on medium to high skilled jobs. Policies should be more inclusive to provide training for lower-skilled workers and create green jobs that are available for the low-income population (KDI and KLI, 2012).

Inclusive Green Growth and Green Jobs: Case Study of Korea, Knowledge Sharing Program

ILO. 2011. Skills for Green Jobs: A Global View, Synthesis Report Based on 21 Country Studies, ILO, Geneva.

KDI and KLI. 2012. Green Job Creation Resulted by the Green Growth Five Year Plan, Korea Development Institute and Korea Labour Institute [Korean]

Ministry of Environment. 2008. Climate Change Specialized Graduate Schools, Ministry of Environment, Republic of Korea [Korean]

Presidential Committee on Green Growth (PCGG). 2009a. Policies for Green Growth Education, 5th Meeting of the Presidential Committee for Green Growth, 24 August 2009 [Korean]

PCGG. 2009b. Plan for Green Job Creation and Capacity Building: How and Where to Create Green Jobs, 6th Meeting of the Presidential Committee for Green Growth, 5 November 2009 [Korean]

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## References

Chung J., N. Lee, J. Choi, H. Ko, Y. Choi, H. Son, and H. Chu. 2013. Education and Skills for

### Disclaimer

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