Decent Work

International Labour Organization

REPUBLIC OF KOREA

EMPLOYMENT AND ENVIRONMENTAL SUSTAINABILITY FACT SHEETS 2017

The Employment and Environmental Sustainability Fact Sheets series provides key features of employment and environmental sustainability performance. Jobs that are green and decent are central to sustainable development and resource productivity. They respond to the global challenges of environmental protection, economic development and social inclusion. Such jobs create decent employment opportunities, enhance resource efficiency and build low-carbon, sustainable societies. The fact sheets include the most recent available data for selected indicators[1] on employment and environmental sustainability: (i) employment in environmental sectors; (ii) skill levels; (iii) vulnerability of jobs; (iv) jobs in renewable energy; and (v) scoring on the Environmental Performance Index.

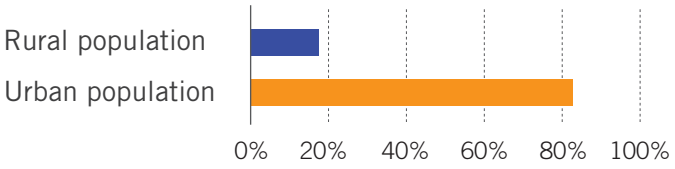
Figure 1. Map of Republic of Korea

The Republic of Korea[2] is located in East Asia, on the southern part of the Korean Peninsula (Fig. 1). Its population is mostly urban and growing, with a fertility rate of 1.2 children and life expectancy at 82.2 years. Around 73 per cent of the population is of legal working age (15–64 years) (Fig. 2).

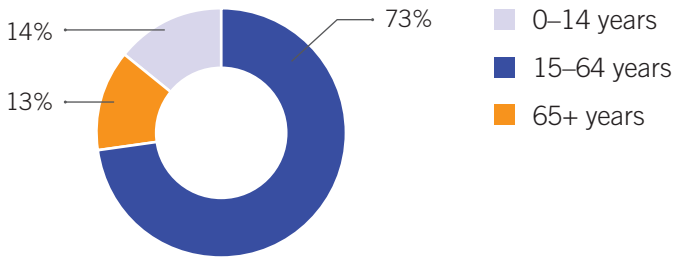
Figure 2. Demographics for the Republic of Korea

Population: 51.2 million

Population growth rate	Fertility rate	Life expectancy at birth
0.5%	1.2 children	82.2 years



Population age categories



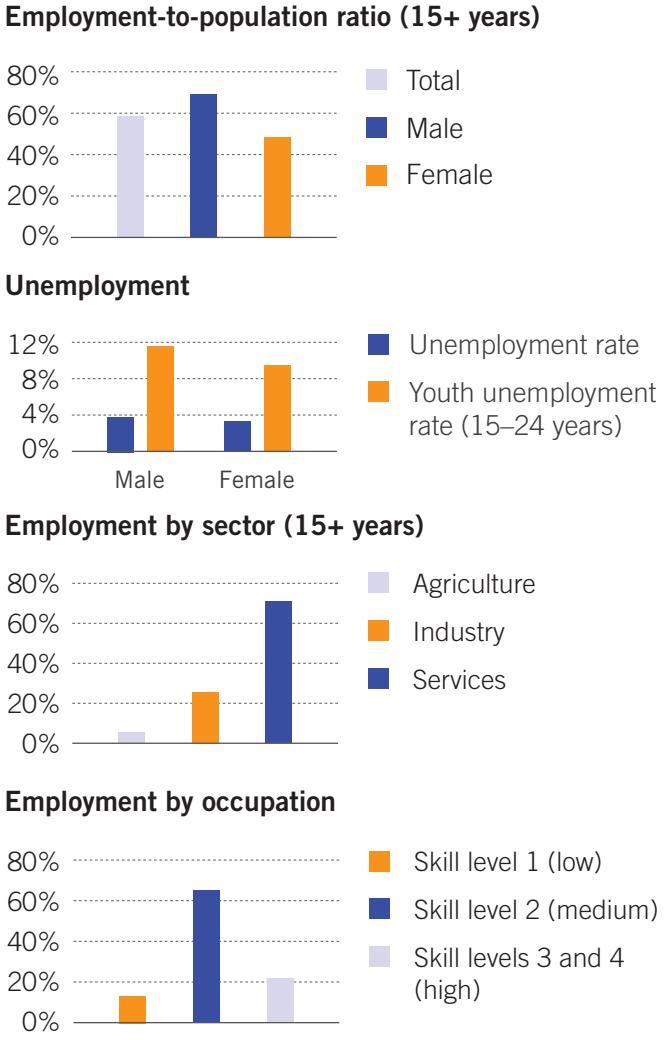
Note: All data for 2016, except fertility and life expectancy, which are 2015.

Source: ILO compilation using World Bank: World development indicators, last updated 20 July 2017, http://databank.worldbank.org (accessed 30 July 2017).

1. The fact sheet is based on available data only.
2. The Republic of Korea became a member of the International Labour Organization in 1991.

As of 2017, the labour force participation rate is 60.9 per cent and the employment-to-population ratio is 58.7 per cent. Both of those rates are more than 20 percentage points higher for men than for women. The total unemployment rate is 3.6 per cent, and the youth unemployment rate (aged 15—24 years) is 10.4 per cent, with the male unemployment rate in this age group 2.1 percentage points higher than the female rate. The youth (aged 15–24 years) not in employment, education or training rate was 18.8 per cent in 2011. Formal employment is heavily reliant on services[3] and medium-skilled occupations, although high-skilled occupations account for more than one in five jobs (Fig. 3).

Figure 3. Basic employment statistics for the Republic of Korea, 2017

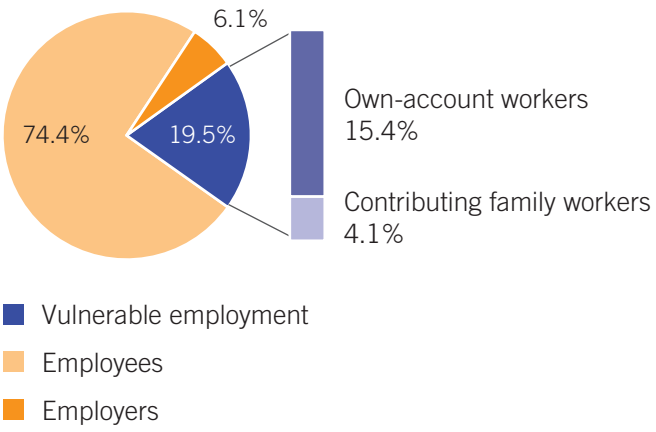


Note: ILO estimates. Labour force participation rate and unemployment: aged 15 years and older. Youth unemployment: aged 15–24 years. Employment by occupation: skill level 1 (low) for elementary occupations; skill level 2 (medium) for clerical, service and sales workers, skilled agricultural and trade workers, plant machinists and assemblers; and skill level 3 and 4 (high) for managers, professionals and technicians.

Source: ILO compilation using ILOSTAT, http://www.ilo.org/ilostat (accessed 17 July 2017).

Vulnerable employment in the Republic of Korea accounts for 19.5 per cent of the labour force, with the majority of those workers having own-account status (Fig. 4). Own-account and contributing family workers are more likely to experience low job and income security than employees and employers, as well as lower coverage by social protection systems and employment regulation.

Figure 4. Vulnerable employment, by status, 2017



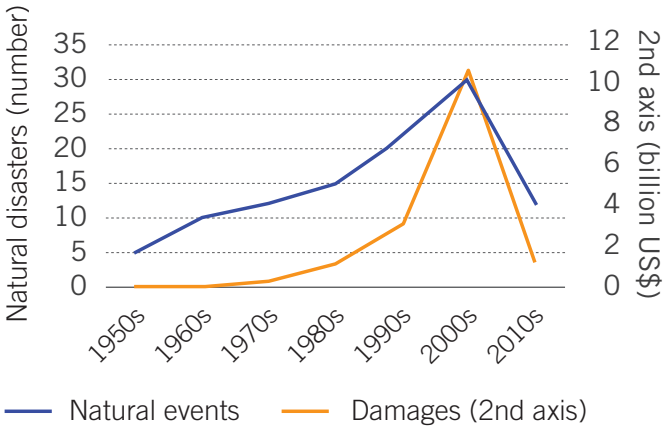
Note: Vulnerable employment includes own-account workers and contributing family workers.

Source: ILO compilation using ILOSTAT, http://www.ilo.org/ilostat (accessed 17 July 2017).

According to the *World Risk Report*,[4] the Republic of Korea has a low World Risk Index score. It ranks 113 (out of 171 countries) despite its high exposure to natural hazards because the country has very good coping and adaptive capacity. Although only 2.9 per cent of the total land area is below 5 meters above sea level, 3 per cent of the total population lived in that area as of 2010.[5] According to the Emergency Events Database,[6] there has been an increase in natural disasters[7] and associated damage costs since the 1950s (Fig. 5), mostly due to tropical cyclones, storms, floods, landslides and forest fires which resulted in more than 7,700 deaths. Although the Republic of Korea has well-established institutional capacity, further developing preventive measures to limit infrastructure and property damage and increase capacity for small businesses, to respond to climate events, can be a source of decent job creation while building resilience.

3. Informal employment (self-employed and contributing family members) is excluded from the agriculture calculations.
4. Bündnis Entwicklung Hilft and United Nations University: *World risk report 2016* (Berlin, 2016), http://weltrisikobericht.de/english/.
5. World Bank: World development indicators, last updated 20 July 2017, http://databank.worldbank.org/.
6. EM–DAT: The Emergency Events Database – Université catholique de Louvain (UCL) – CRED, D. Guha-Sapir – www.emdat.be, Brussels, Belgium.
7. Climatological, hydrological and meteorological disasters.

Figure 5. Natural disaster occurrence and damage costs in the Republic of Korea, 1950s–2010s

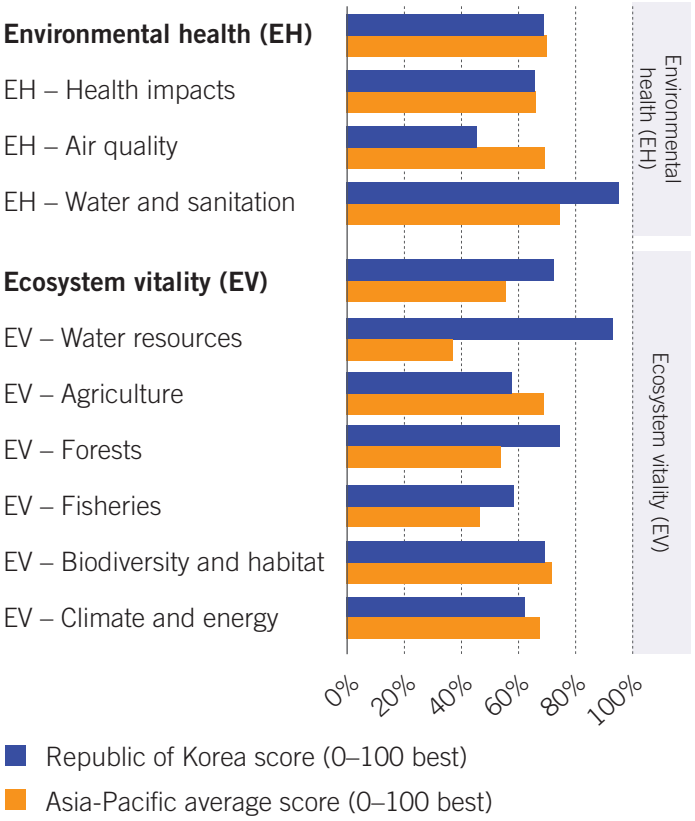


Note: Natural events include climatological, hydrological and meteorological disasters. 2010s data are only for the first half of the decade.

Source: ILO compilation using EM–DAT: The Emergency Events Database – Université catholique de Louvain (UCL) – CRED, D. Guha-Sapir – www.emdat.be, Brussels, Belgium.

The Republic of Korea ranks 80 of 180 countries in the Environmental Performance Index (EPI), with a score of 70.61 (with 0 being furthest from the high-performance benchmark target of 100). The country either matches or outperforms the average score for Asia and the Pacific (Fig. 6) in most of the EPI categories. Yet, there is room for improvement, especially in environmental health (in air quality) and ecoosytem vitality (in agriculture and climate and energy). Action to improve environmental health, ecosystem vitality, climate change and resilience to weather disasters have the potential to provide job creation, green economy growth and innovation in the country.

Figure 6. Environmental Performance Index 2016 for the Republic of Korea



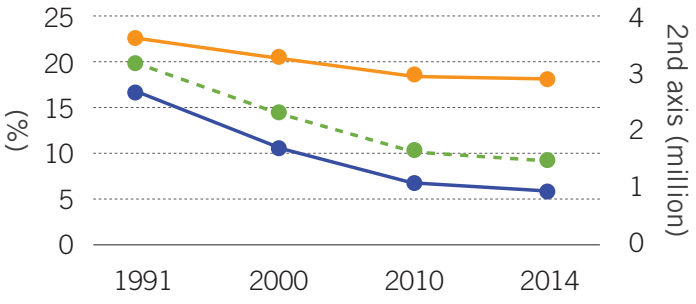
Note: Score 0–100 best. Asia-Pacific: Each score is an average of all data for ILO member States in the region, excluding four countries with no data (Cook Islands, Marshall Islands, Palau and Tuvalu).

Source: ILO compilation using, A. Hsu et al.: *2016 Environmental Performance Index* (New Haven, CT, Yale University, 2016), www.epi.yale.edu.

Rural population growth was a negative 0.1 in 2015. The share of agricultural land in total land area decreased between 1991 and 2014, while agricultural employment dropped from 3.1 million to 1.4 million people. The share of agricultural employment in total employment fell by approximately 11 percentage points due to a combination of falling employment in this sector and job creation in other sectors (Fig. 7). The share of forest area in total land area declined between 1990 and 2014 by 2.5 percentage points, although it still dominated in 2014, at 63 per cent. During the same period, the share of terrestrial protected area increased by almost 2.5 percentage points, to 7.6 per cent of total land area in 2014, while the share of marine protected area slightly increased, to 4.3 per cent of total territorial waters (Fig. 8). In 2016, 4.9 per cent of all employment was in the agriculture, forestry and fishing sector (Fig. 9). Although reliance on agriculture is small, there might be opportunities for job creation

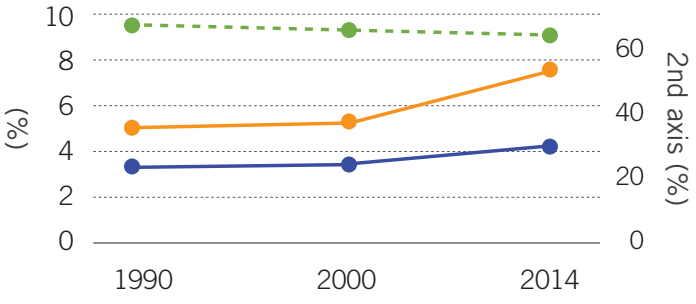
for sustainable production and organic farming. There are greater prospects for employment opportunities with the country's commitment to transition to a low-carbon and resource-efficient economy, such as jobs in resource management and environmental services.[8]

Figure 7. Agricultural land and agricultural employment, 1991–2014



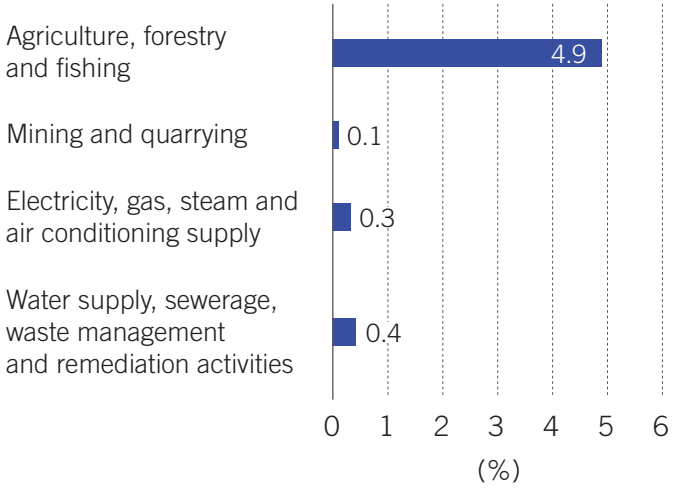
Source: ILO compilation using World Bank: World development indicators, last updated 20 July 2017, http://databank.worldbank.org/; ILOSTAT, http://www.ilo.org/ilostat (accessed 30 July 2017).

Figure 8. Forest area and terrestrial and marine protected areas, 1990–2014



Source: ILO compilation using World Bank: World development indicators, last updated 20 July 2017, http://databank.worldbank.org/ (accessed 30 July 2017).

Figure 9. Employment in sectors with strong green jobs potential, 2016



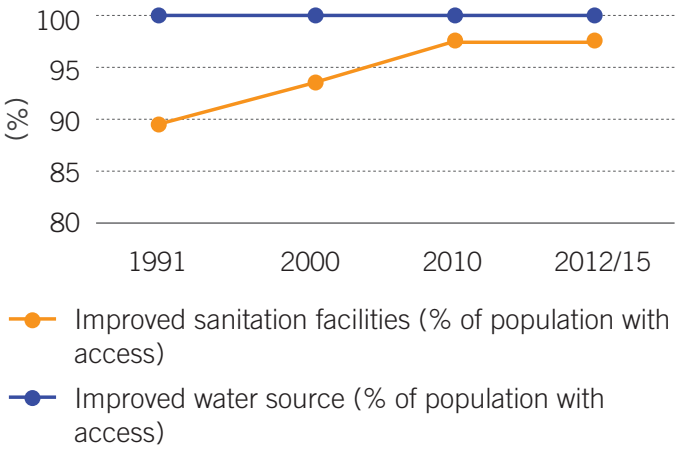
Note: These sectors have the most potential for green job opportunities. Employment by selected 1-digit sector level (ISIC-Rev. 4, 2008).

Source: ILO compilation using ILOSTAT, http://www.ilo.org/ilostat (accessed 16 November 2017).

Since 1991, the percentage of the population with access to improved water supply in the country increased 8 percentage points, to 97.6 per cent in 2012. All households have access to improved sanitation (Fig. 10). According to the World Bank and based on the most recent available data,[9] municipal solid waste generation in the Republic of Korea in 2005 was 1.24 kg per capita per day and is expected to increase to 1.4 kg per capita per day by 2025. In 2002, 99 per cent of the waste was collected. Most of the waste in 2005 was either organic and other (both at 28 per cent) and paper (24 per cent) (Fig. 11).[10] In 2004, a large proportion of waste was recycled (at 49 per cent), followed by dumped in landfill (at 36 per cent), with 14 per cent incinerated in waste-to-energy facilities.[11] In 2003, the Government introduced the Extended Producer Responsibility (EPR) system, which requires manufacturers and importers to recycle a certain amount of their products. According to the International Labour Organization, over a five-year period (2003–08) more than 6 million tonnes of waste was recycled, with an estimated economic benefit of more than US$1.6 billion. From 2003 to 2006, the EPR system created 3,200 new jobs.[12] In 2016, only 0.4 per cent of the country's labour force was employed in water supply, sewerage, waste management and remediation activities (Fig. 9). Due to the growing amount of waste and implementation, the EPR will provide decent job opportunities in the future.

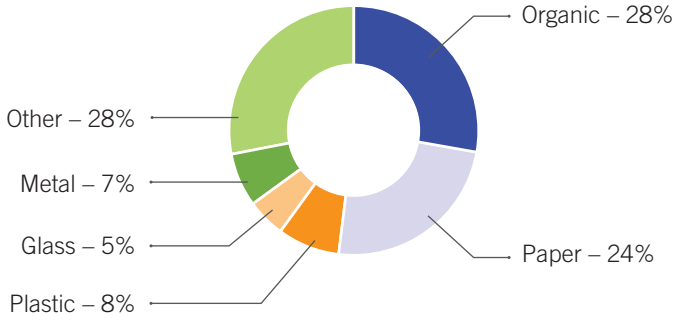
8. Organisation for Economic Co-operation and Development: The jobs potential of a shift towards a low-carbon economy, *OECD Green Growth Papers*, No. 2012/01 (Paris, 2012), http://dx.doi.org/10.1787/5k9h3630320v-en.
9. World Bank: *What a waste: A global review of solid waste management* (Washington, DC, 2012).
10. ibid.
11. ibid.
12. ILO: "Waste management in Republic of Korea" (2012), http://apgreenjobs.ilo.org/news/waste-management-in-republic-of-korea (accessed 20 November 2017).

Figure 10. Improved sanitation and water supply access, 1991–2015



Source: ILO compilation using World Bank: World development indicators, last updated 20 July 2017, http://databank.worldbank.org/ (accessed 30 July 2017).

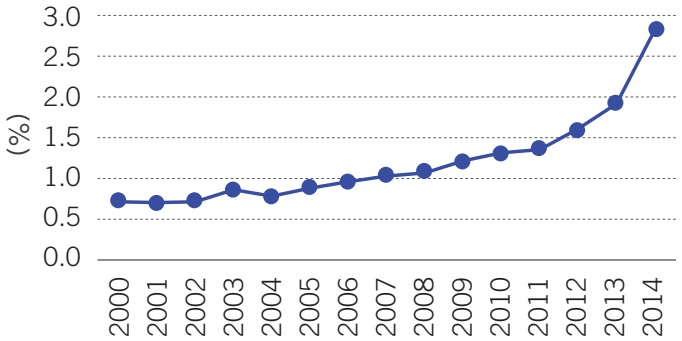
Figure 11. Waste composition, 2005



Source: ILO compilation using World Bank: *What a waste: A global review of solid waste management* (Washington, DC, 2012).

In 2014, more than 95 per cent of the population relied primarily on clean fuel and technology, in the sense that they do not create indoor pollution within the home.[13] The share of renewable energy in total energy consumption is increasing, although it remains small, at 2.8 per cent in 2014 (Fig. 12) – indicating continued heavy reliance on fossil fuels and nuclear facilities.[14] Renewable energy generation rose slightly between 2011 and 2015, with hydropower the main source of renewable energy in 2015 (Fig. 13). In 2016, 17,100 people were employed in the renewable energy sector, with 51 per cent of them in solar photovoltaic (Fig. 14). In 2008, the country adopted a "green growth" strategy to foster economic development by means of low-carbon technologies and clean energy and in 2015 implemented an emissions trading scheme.[15] The employment rate in electricity, gas, steam and air conditioning supply was 0.3 per cent in 2016 (Fig. 9). With that push for increasing reliance on renewable energy, there is considerable potential for decent job opportunities in the future.

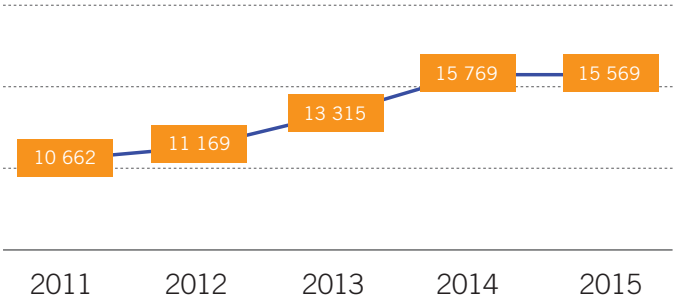
Figure 12. Renewable energy share in total final energy consumption, 2000–14



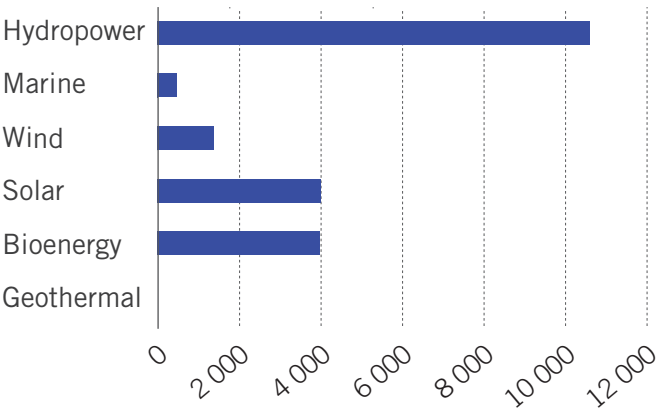
Source: ILO compilation using UN: SDG indicators: Global database (2017), https://unstats.un.org/ (accessed 17 July 2017).

Figure 13. Renewable energy generation, 2011–15

Total renewable energy electricity generation (GWh)



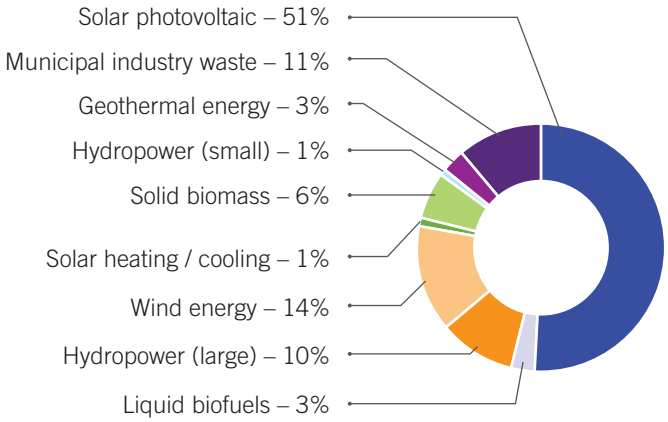
Renewable energy electricity generation (GWh), by technology 2015



Source: ILO compilation using International Renewable Energy Agency: Dashboards (2017), http://resourceirena.irena.org/gateway/dashboard/ (accessed 17 July 2017).

13. The proportion of population with primary reliance on clean fuels and technology is calculated as the number of people using clean fuels and technologies for cooking, heating and lighting divided by total population reporting any cooking, heating or lighting, expressed as a percentage. "Clean" is defined by the emission rate targets and specific fuel recommendations (against unprocessed coal and kerosene) included in the normative World Health Organization guidelines for indoor air quality; see the data for household fuel combustion, https://unstats.un.org/sdgs/metadata/files/Metadata-07-01-02.pdf.
14. See https://www.iea.org/media/countries/Korea.pdf.
15. See https://www.iea.org/countries/membercountries/korea/.

Figure 14. Renewable energy employment, by energy source, 2016



Note: Data limitations apply for certain technologies in certain countries. The lack of data reported for any specific technology may thus be indicative of a data gap, rather than the absence of renewable energy jobs using that technology.

Source: ILO compilation using International Renewable Energy Agency: Dashboards (2017), http://resourceirena.irena.org/gateway/dashboard/ (accessed 17 July 2017).

Better data collection relating to the green economy and the environmental sector would be valuable for policy-makers in the Republic of Korea and Asian-Pacific countries. Better data on green and decent jobs is particularly needed to assess the impact of climate change and climate-related policies on social inclusion. Without better data, it will be difficult to determine what policy changes are needed to assure a just transition to environmental sustainability and to monitor progress going forward.