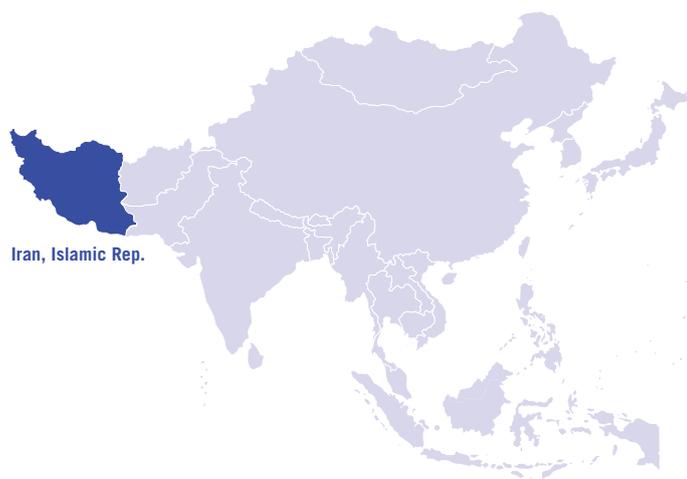


ISLAMIC REPUBLIC OF IRAN

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 indicators¹ 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 the Islamic Republic of Iran



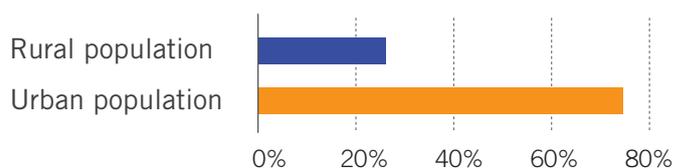
The Islamic Republic of Iran² is located in western Asia and shares a border with Armenia and Azerbaijan to the north-west, Turkmenistan to the north-east, Afghanistan and Pakistan to the east and Turkey and Iraq to the west (Fig. 1). Its population is mostly urban and growing, with a fertility rate of 1.7 children and life expectancy at 75.6 years. Around 71 per cent of the population is of legal working age (15–64 years) (Fig. 2).

Figure 2. Demographics for Islamic Republic of Iran

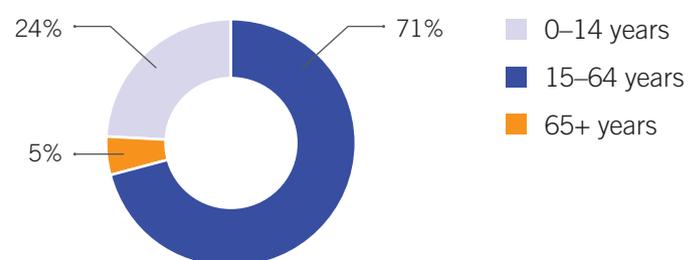
Population: 80.3 million



Population growth rate	Fertility rate	Life expectancy at birth
1.1%	1.7 children	75.6 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).

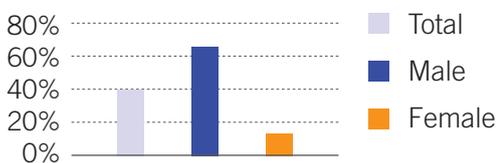
1. The fact sheet is based on available data only.

2. The Islamic Republic of Iran became a member of the International Labour Organization in 1919.

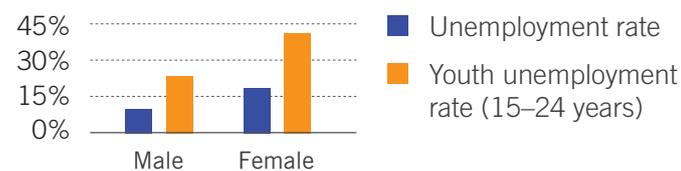
As of 2017, the labour force participation rate is 44.8 per cent and the employment-to-population ratio is 39.7 per cent. Both of those rates are more than 50 percentage points higher for men than for women. The total unemployment rate is 11.3 per cent, and the youth unemployment rate is 26.7 per cent, with the female youth rate 18.8 percentage points higher than the male rate (Fig. 3). The youth (aged 15–24 years) not in employment, education or training rate was 34.4 per cent in 2010. Formal employment is heavily reliant on services³ and on medium-skilled occupations, although the industry sector accounts for more than 30 per cent of total employment (Fig. 3).

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

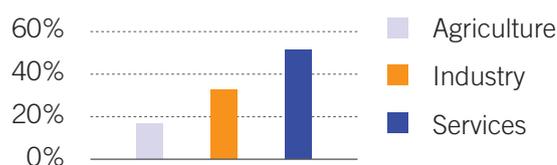
Employment-to-population ratio (15+ years)



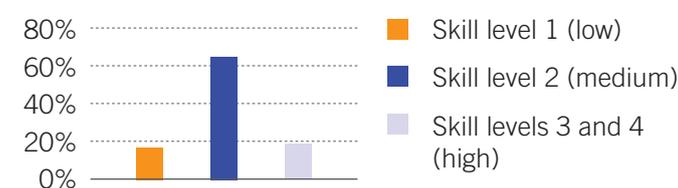
Unemployment



Employment by sector (15+ years)



Employment by occupation

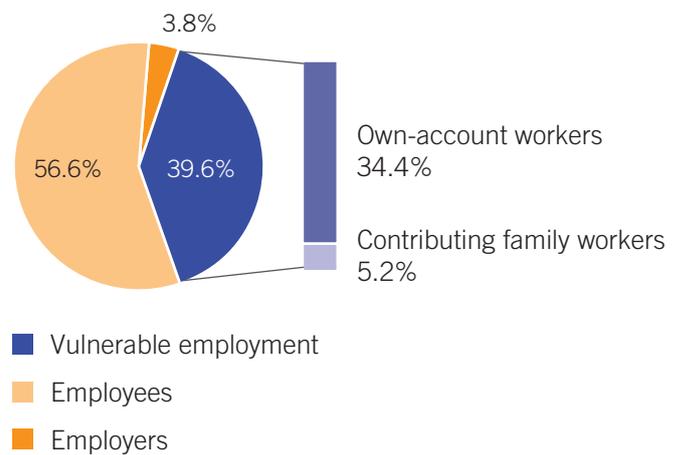


Note: ILO estimates. Labour force participation rate and unemployment: aged 15 years and older. Youth unemployment: aged 15–24 years. Employment by occupation: skill level 1 (low) for elementary occupations; skill level 2 (medium) for clerical, service and sales workers, skilled agricultural and trade 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 Islamic Republic of Iran accounts for 39.6 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 Islamic Republic of Iran has a low World Risk Index score. Despite its low exposure to natural hazards, it ranks 111 (out of 171 countries), because of its limited coping capacity. Additionally, the 1.3 per cent of the total population who lived in the 0.8 per cent of total land area below 5 meters above sea level in 2010 contributes to its vulnerability.⁵ According to the Emergency Events Database,⁶ there was a spike in natural disasters⁷ and associated damage costs in the 1990s, but otherwise no clear trend since the 1950s (Fig. 5). The natural disasters in that time were mostly storms, floods and droughts which resulted in 1,350 deaths. Developing preventive measures to limit infrastructure and property damage and increase institutional capacity, particularly 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.

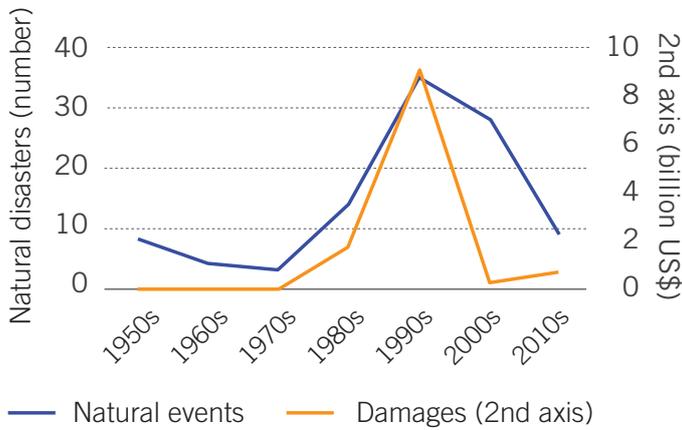
4. Bündnis Entwicklung Hilft and United Nations University: *World risk report 2016* (Berlin, 2016), <http://weltrisikobericht.de/english/>.

5. World Bank: World development indicators, last updated 20 July 2017, <http://databank.worldbank.org/> (accessed 30 July 2017).

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 Islamic Republic of Iran, 1950s-2010s

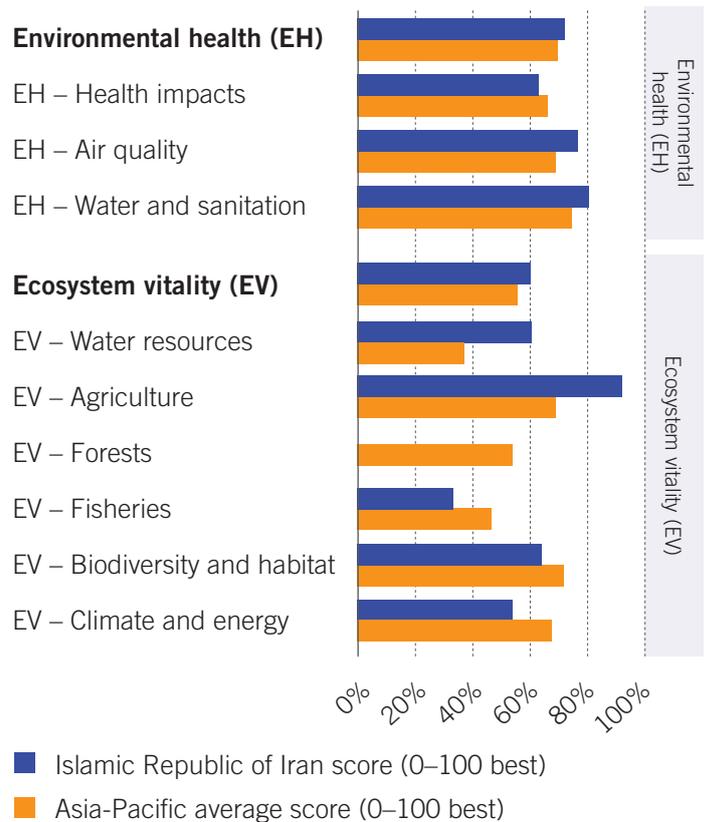


Note: Natural events include climatological, hydrological and meteorological disasters. 2010s data are only for the first half of the decade.

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 Islamic Republic of Iran ranks 105 of 180 countries in the Environmental Performance Index (EPI), with a score of 66.3 (with 0 being furthest from the high-performance benchmark target of 100). The country outperforms the average score for Asia and the Pacific (Fig. 6)⁸ in two of the EPI environmental health categories (air quality and water and sanitation) and in two of the ecosystem vitality categories (water resources and agriculture). Still, there is significant room for improvement in most of the environmental areas, especially in environmental health (in health impacts) and in ecosystem vitality (in fisheries, biodiversity and climate and energy). Action to improve environmental health, ecosystem vitality, climate change and resilience to weather disasters all have the potential to provide job creation, green economy growth and innovation in the country.

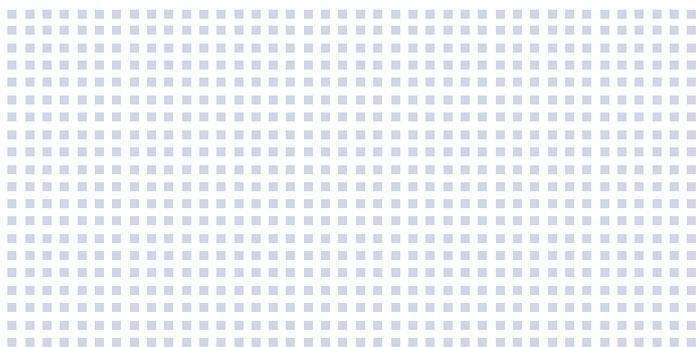
Figure 6. Environmental Performance Index 2016 for the Islamic Republic of Iran



Note: Score 0–100 best. Islamic Republic of Iran: No score for EV–Forests due to lack of data. 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.epiyale.edu.

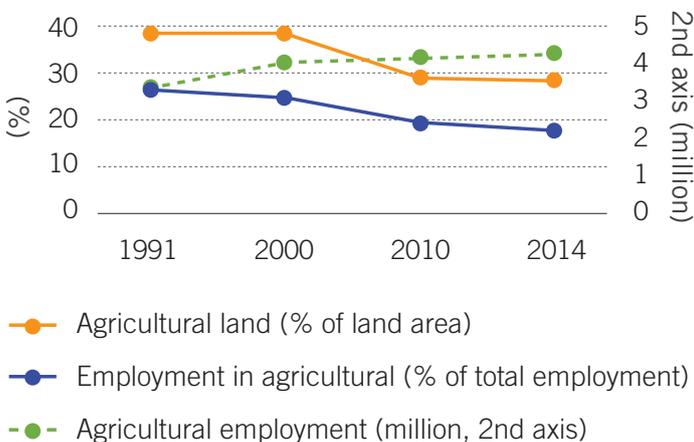
Rural population growth was a negative 0.7 per cent in 2015. The share of agricultural land in total land area, although still large, decreased between 1991 and 2014, while agricultural employment increased from 3.36 million to 4.25 million people. The share of agricultural employment in total employment fell by approximately 8 percentage points due to faster job creation in other sectors (Fig. 7). The share of protected forest area increased between 1990 and 2014, to approximately 6.6 per cent of total land area. During that same time, terrestrial protected area also increased slightly, to 7.3 per cent, while the share of marine protected area amounted to 2.2 per cent of total territorial waters (Fig. 8). In 2016, 18 per cent of employment was in the agriculture, forestry and fishing sector (Fig. 9). Although reliance on agriculture is moderate, there are opportunities for job creation for sustainable production and organic



8. Due to lack of data, it was not possible to calculate the score for EV–Forests.

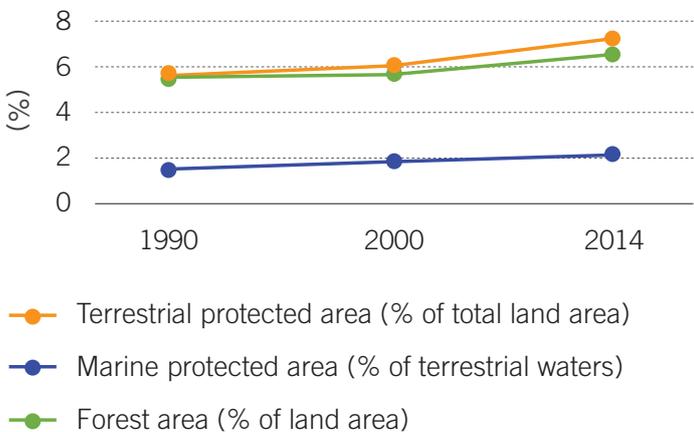
farming. There will be greater prospects for employment opportunities if there is commitment to transition to a low-carbon and resource-efficient economy, such as jobs in resource management and environmental services.⁹

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



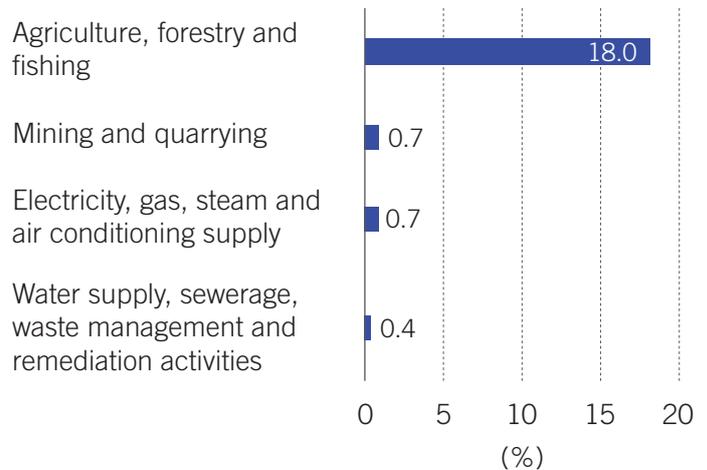
Source: ILO compilation using World Bank: World development indicators, last updated 20 July 2017, <http://databank.worldbank.org/>; ILOSTAT, <http://www.ilo.org/ilostat> (accessed 30 July 2017).

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, 2015



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

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

Since 1990, the percentage of the population with access to improved water supply has increased from 92.2 per cent to 96.1 per cent in 2015. There was an 18.6-percentage point increase in access to improved sanitation between 1990 and 2015, reaching 90 per cent (Fig. 9). Both rates, however, are still below the ideal threshold of 100 per cent (Fig. 10). Municipal solid waste generation was 0.16 kg per capita per day in 2005 but is expected to increase to 0.6 kg per capita per day by 2025.¹⁰ The largest share of the waste in 2005 was organic (at 43 per cent),¹¹ followed by paper (at 22 per cent), and plastic (at 11 per per cent) (Fig. 11).¹² Only 0.4 per cent of the country's labour force was employed in water supply, sewerage, waste management and remediation activities in 2016 (Fig. 9). Improvement in water and sanitation access and municipal waste management system for collection, safe and sustainable disposal, recycling and composting practices will provide decent job opportunities in the future.

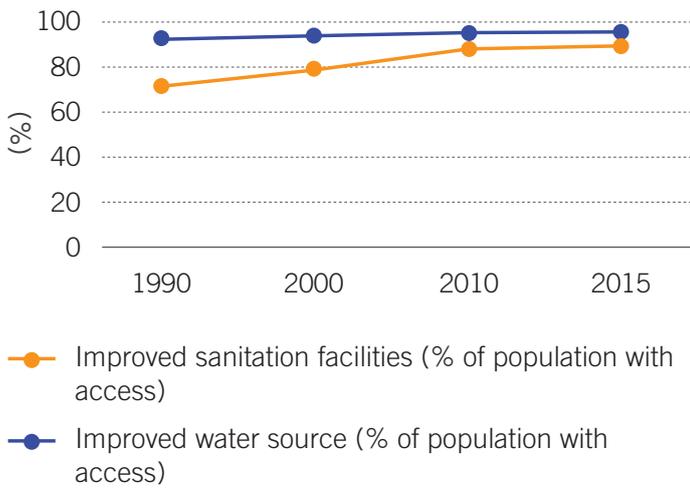
9. Organisation for Economic Co-operation and Development: The jobs potential of a shift towards a low-carbon economy, *OECD Green Growth Papers*, No. 2012/01 (Paris, 2012), <http://dx.doi.org/10.1787/5k9h3630320v-en>.

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

11. Other: textiles, leather, rubber, multi-laminates, e-waste, appliances, ash and other inert materials (World Bank: *What a waste: A global review of solid waste management* (Washington, DC, 2012)).

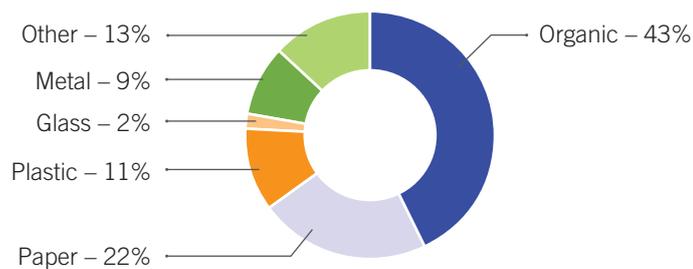
12. *ibid.*

Figure 10. Improved sanitation and water supply access, 1990-2015



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

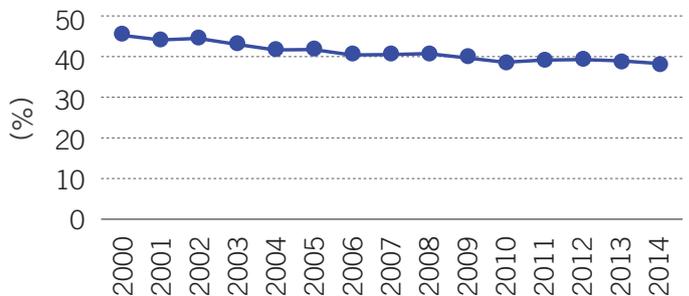


Source: ILO compilation using World Bank: *What a waste: A global review of solid waste management* (Washington, DC, 2012).

In 2014, more than 95 per cent of the population relied primarily on clean fuel and technology,¹³ in the sense that they do not create indoor pollution within the home. The share of renewable energy in total energy consumption, however, has not kept pace with overall consumption. It was 45.6 per cent in 2000 but fell below 40 per cent by 2009 and continued to decline to 38.1 per cent in 2014 (Fig. 12). Renewable energy generation increased slightly between 2011 and 2013 but has since declined, with hydropower the main source of renewable energy in 2015 (Fig. 13). In 2016, approximately 39,700 people were employed in the renewable energy sector, with 97 per cent of them in large hydropower facilities (Fig. 14). The country's employment rate in electricity, gas, steam and air conditioning was only 0.7 per cent in 2016 (Fig.

9). With the push for increasing reliance on renewable energy, there will be greater potential for decent job opportunities in the future.

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



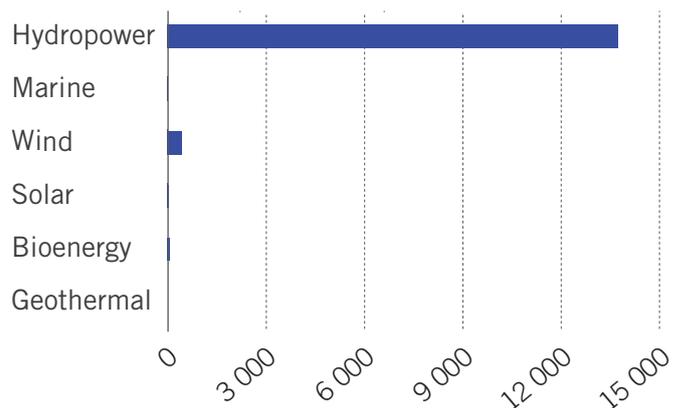
Source: ILO compilation using UN: SDG indicators: Global database (2017), <https://unstats.un.org/> [accessed 17 July 2017].

Figure 13. Renewable energy generation, 2011-15

Total renewable energy electricity generation (GWh)



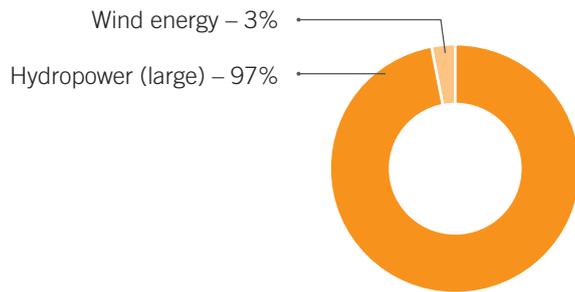
Renewable energy electricity generation (GWh), by technology 2015



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>.

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 Islamic Republic of Iran 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.