Decent Work

International Labour Organization

SAMOA

EMPLOYMENT AND ENVIRONMENTAL SUSTAINABILITY FACT SHEETS 2019

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 recently available data for selected indicators on employment and environmental sustainability: (i) employment in environmental sectors; (ii) skill levels; (iii) vulnerability of jobs; (iv) jobs in renewable energy; (v) scoring on the Environmental Performance Index; and (vi) air quality.

DEMOGRAPHICS

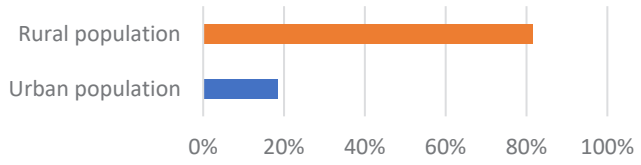
Samoa[1] is a small island nation in the south-western Pacific Ocean (Fig. 1). Its population is mostly rural and growing, with a fertility rate of 3.9 children and life expectancy of 75.5 years. Around 58 per cent of the population is of legal working age (15–64 years) (Fig. 2).

Figure 1. Map of Samoa

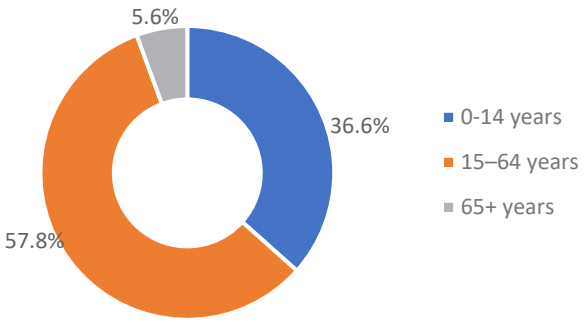
Figure 2. Samoa population statistics

Population:[2] 0.2 million

Population growth rate	Fertility rate	Life expectancy at birth
0.7%	3.9 children	75.5 years



Population age categories



Note: data is for 2017, except fertility rate and life expectancy at birth (2018 data).

Source: ILO compilation using World development indicators, last updated: 28/06/2018; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# and UN ESCAP Statistics. http://data.unescap.org/escap_stat/ (accessed on 30 December 2018).

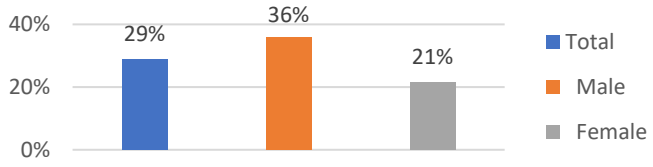
[1] Samoa became a member of the International Labour Organization in 2005.
[2] Population data based on 2017 data.

LABOUR FORCE

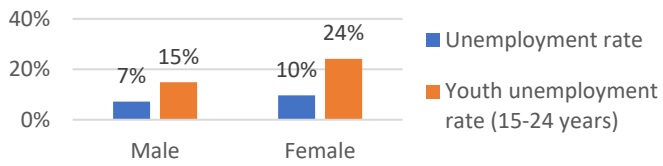
In 2018, the labour force participation rate was 31.4 per cent and the employment-to-population ratio was 28.9 per cent. Both these rates are more than 14 percentage points higher for men than for women. The total unemployment rate was 8.1 per cent, and the youth unemployment rate was 18.1 per cent, with the female youth unemployment rate 9.3 percentage points higher than the male rate. The proportion of youths aged 15-24 years not in education, employment or training was 39 per cent in 2012.[3] Employment is heavily reliant on services, and on medium-skilled occupations (Fig. 3).

Figure 3. Basic employment statistics for Samoa, 2018

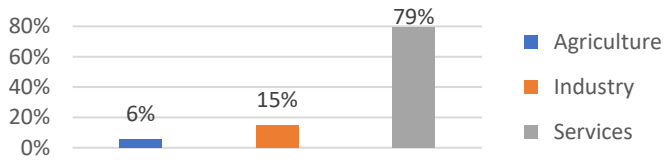
Employment-to-population, 2018 (15+ years)



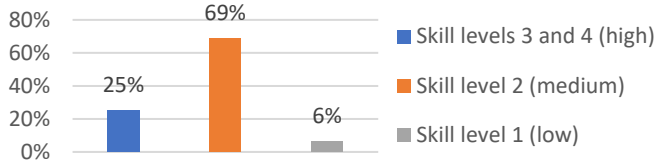
Unemployment, 2018



Employment by sector, 2018 (15+ years)



Employment by occupation, 2018

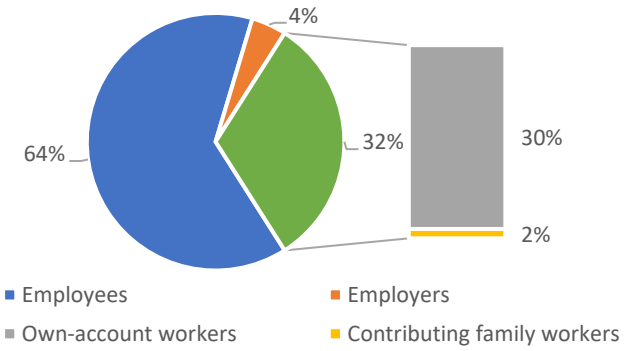


Note: ILO estimates. Labour force participation rate and unemployment: aged 15 years and older. Youth unemployment: aged 15–24 years. Employment by occupation: skill level 1 (low) for elementary occupations; skill level 2 (medium) for clerical, service and sales workers, skilled agricultural and trade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

Source: ILO estimates and compilation using ILOSTAT, www.ilo.org/ilostat (accessed 30 December 2018).

Vulnerable employment in Samoa as of 2018 accounted for 32 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, 2018

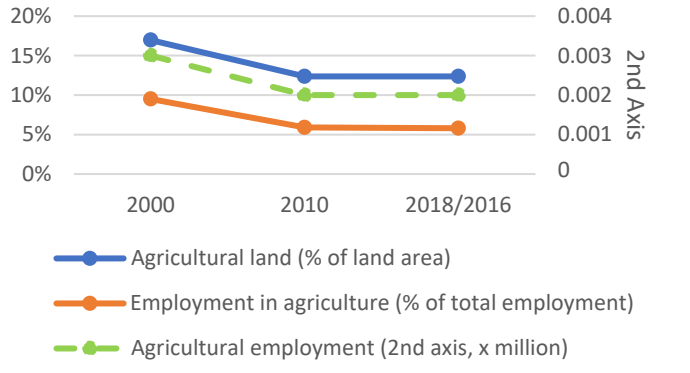


Note: ILO estimates. Vulnerable employment includes own-account workers and contributing family workers from ILO status of employment data.

Source: ILO estimates and compilation using ILOSTAT, www.ilo.org/ilostat (accessed 30 December 2018).

Rural population growth was 0.95 per cent in 2017. The share of agricultural land in total land area decreased by 5 percentage points between 2000 and 2016. Agricultural employment also decreased from 0.003 to 0.002 million people. The share of agricultural employment within total employment fell by approximately 4 percentage points due to faster job creation in other sectors (Fig. 5).

Figure 5. Agricultural land and agricultural employment, 2000-2018



Note: data for agricultural land is from 2016 and other data is from 2018.

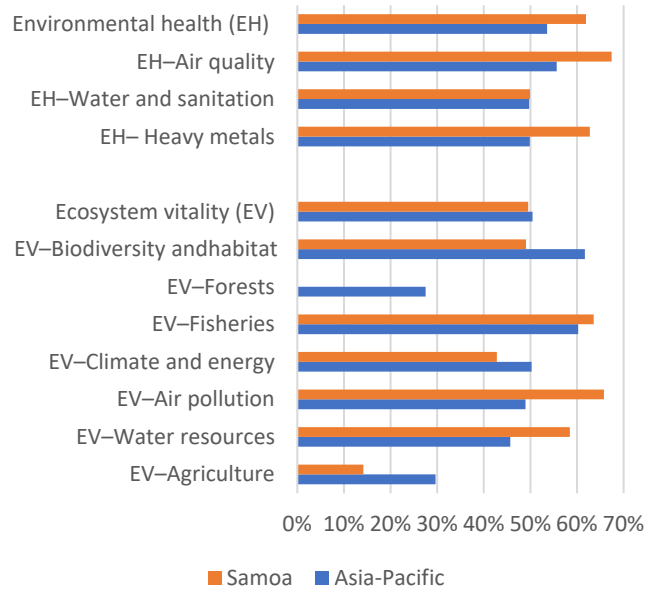
Source: ILO compilation using World development indicators, last updated: 28/06/2018; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 30 December 2018).

[3] World development indicators. http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 7 August 2018).

ENVIRONMENTAL ISSUES

Samoa ranks at number 102 of 180 countries in the Environmental Performance Index (EPI),[4] with a score of 54.5 (with 0 being furthest from the high-performance benchmark target of 100). Samoa outperforms the average score for Asia and the Pacific (Fig. 6) in some of the EPI categories, including air quality, heavy metals, fisheries, air pollution and water resources. However, there is room for improvement, especially in ecosystem vitality (biodiversity and habitat, forests, climate and energy, and agriculture). Action to address climate change and improve environmental health, ecosystem vitality and resilience to weather disasters all have the potential to provide job creation, green economy growth and innovation in Samoa.

Figure 6. Environmental performance index for Samoa, 2018

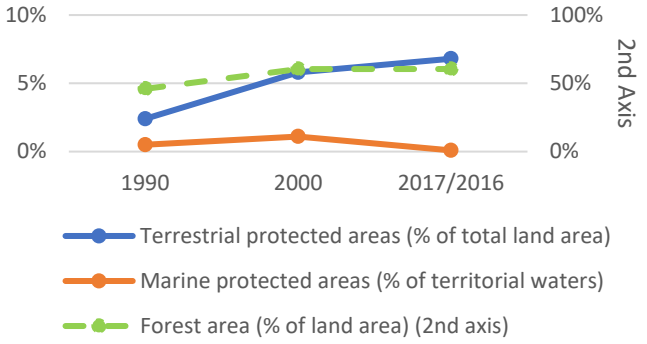


Note: Score 0 (worst) –100 (best). Asia-Pacific: data is for ILO member states in the region, excluding Cook Islands, Marshall Islands, Palau and Tuvalu.

Source: ILO compilation using "2018 EPI Scores – Current". EPI Yale.

Forest area increased between 1990 and 2016, by approximately 15 per cent of total land area. From 1990 to 2017, the share of terrestrial protected area increased gradually, reaching 6.8 per cent of total land area. The proportion of marine protected area declined to 0.1 per cent in 2017 (Fig. 7). There will be greater prospects for employment opportunities if there is a commitment to transition to a low-carbon and resource-efficient economy, such as jobs in resource management and environmental services.[5]

Figure 7. Forest area, terrestrial and marine protection area, 1990-2017

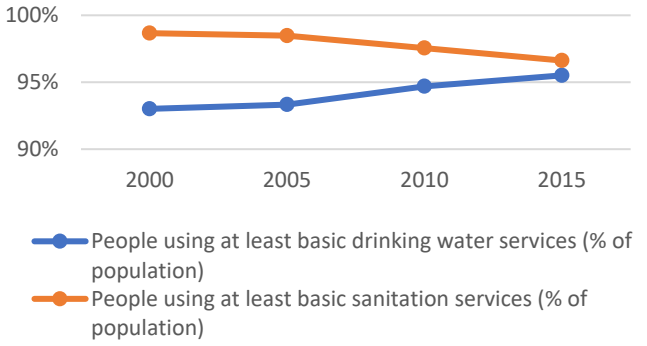


Note: data for forest area is from 2016 and other data is from 2017.

Source: ILO compilation using World development indicators, last updated: 28/06/2018; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 19 February 2019).

Since 2000, there has been a slight increase in access to basic drinking water, to an average of 95.5 per cent in 2015, and a slight decrease in access to basic sanitation, to an average of 96.6 per cent in 2015 (Fig. 8). Both are still below the ideal threshold of 100 per cent. Around 0.6 per cent of the labour force was employed in water supply, sewerage, waste management and remediation activities in 2017 (Fig. 13). Improvement in water supply and sanitation access could provide more decent job opportunities in the future.

Figure 8. Basic drinking water and sanitation access, 2000-2015



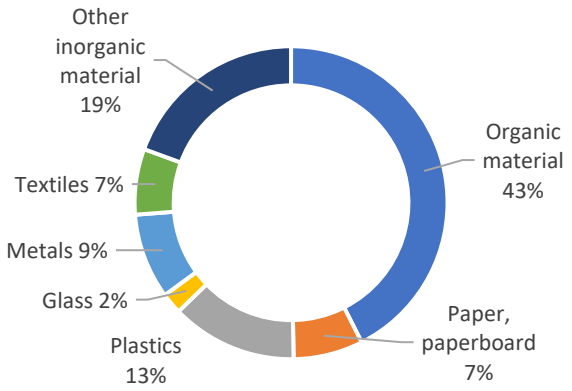
Source: ILO compilation using World development indicators, last updated: 21/05/2018; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 30 December 2018).

[4] Yale Center for Environmental Law and Policy / Center for International Earth Science Information Network at Columbia University. "2018 EPI Scores – Current". EPI Yale. Retrieved 14-06-2018. Available at: https"//epi.envirocenter.yale.edu

[5] 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.

Growth of the urban population in Samoa has meant an increase in solid waste. Waste collection varies between the inner cities and the country's outer urban areas. The majority of the waste in 2011 was organic (43 per cent), followed by inorganic material (19 per cent) (Fig. 9). The much-needed implementation of a municipal waste management system for collection, safe and sustainable disposal, recycling and composting practices could create more green jobs that help the environment and general health.

Figure 9. Waste composition, 2011



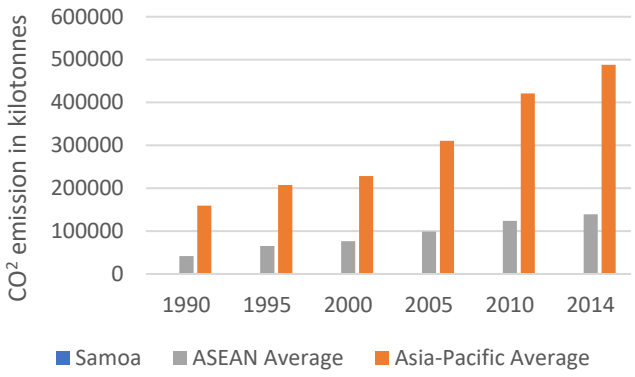
Source: ILO compilation using UNSD-Environment statistics (released on 30 April 2018; https://unstats.un.org/unsd/envstats/qindicators.cshtml) (accessed on 30 December 2018).

AIR QUALITY

The carbon dioxide (CO^2) emission levels for Samoa have increased gradually by an average of 3 per cent from 1990 to 2014 (Fig. 10).[6] The increase was due primarily to the energy sector (main source), followed by industrial processes, agricultural activities and waste handling.[7] The level of emissions is so much lower than both the Asia-Pacific and ASEAN averages that it appears almost negligible.

The $PM_{2.5}$ (atmospheric particulate matter with a diameter of less than 2.5 micrometres) emission levels for Samoa show the highest levels in 2005, although these are still insignificant (Fig. 11). Overall $PM_{2.5}$ emission levels did not exceed the World Health Organization's Air Quality Guideline threshold level, thus indicating low emissions. Samoa shows a significantly lower level of emissions than the ASEAN and Asia-Pacific averages.

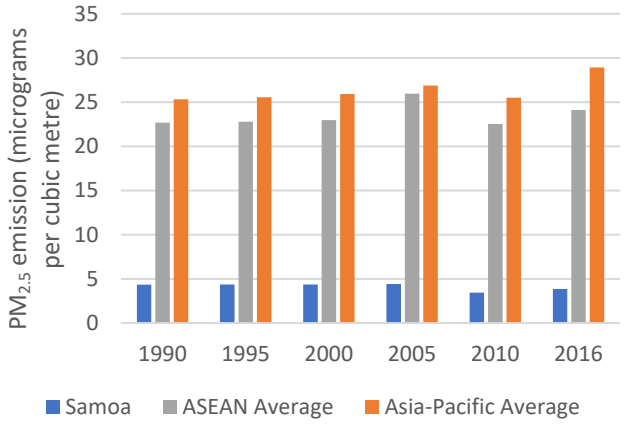
Figure 10. CO^2 emissions for Samoa, 1990-2014



Note: data for ASEAN and Asia-Pacific are the average of all the ILO member states of the regions. Asia-Pacific: data excludes Cook Islands, Timor-Leste (1990, 1995, 2000).

Source: ILO compilation using World Bank indicators. https://data.worldbank.org/indicator/EN.ATM.CO2E.KT?locations=IR (accessed on 30 December 2018).

Figure 11. $PM_{2.5}$ emissions for Samoa, 1990-2016



Note: data for ASEAN and Asia-Pacific are the average of all the ILO member states of the regions. Asia-Pacific: data excludes Cook Islands, Palau and Tuvalu.

Source: ILO compilation using World Bank indicators. https://data.worldbank.org/indicator/EN.ATM.PM25.MC.M3?view=chart (accessed on 30 December 2018).

Applying the Just Transition Guidelines, an area of possible intervention includes efforts to reduce harmful emissions, which could potentially generate green jobs in high emitting sectors such as transportation and fuel-intensive industries. Reducing emissions is a significant challenge, which can be achieved not only by mitigation methods, but also by adapting to, and coping with, the changes required by the transition to a low-carbon economy.

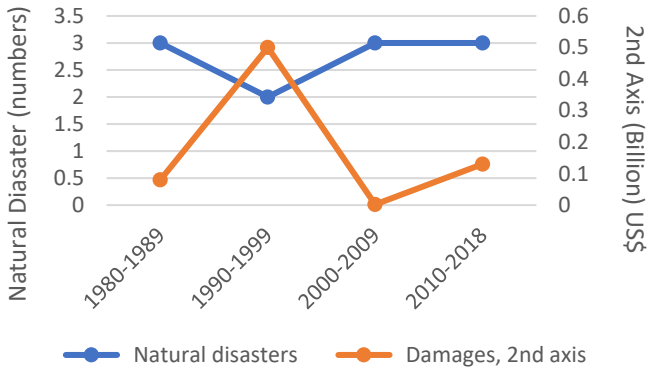
[6] The value is calculated on the basis of CAGR (compound annual growth rate).
[7] Government of Samoa, Ministry of Natural Resources and Environment, Second national greenhouse gas inventory. Samoa's Greenhouse Gas Emissions: 1994-2007. https://unfccc.int/resource/docs/natc/samnc2nir.pdf

CLIMATE CHANGE IMPACTS

Samoa is not covered by the *World Risk Report* due to lack of data. The country is susceptible to natural disasters and environmental damage and has limited institutional capacity to respond to these. Part of the country's vulnerability relates to the 1.4 per cent of the total population who, in 2010, lived in the 0.4 per cent of the total land area below 5 metres above sea level.[8]

According to the *Emergency Events Database,*[9] the number of natural disasters remained relatively steady, with a slight decrease in the 1990s (Fig. 12).[10] The natural disasters in that time were mostly storms, floods, droughts and wildfires. Developing preventative measures to limit infrastructure and property damage and increase institutional capacity to respond to climate events, particularly for small businesses, can be a source of decent job creation while building resilience.

Figure 12. Natural disaster occurrence and damage costs in Samoa



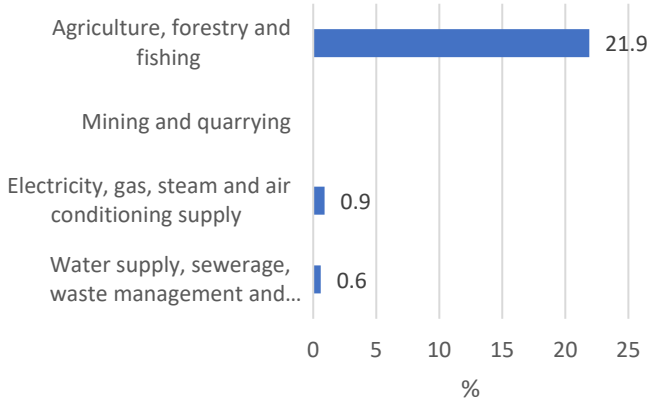
Note: Natural events include climatological, hydrological and meteorological disasters.

Source: EM-DAT: The emergency events database - Universite catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium. Data accessed on: 30 December 2018.

GREEN JOBS POTENTIAL

In 2017, 21.9 per cent of total employment was in the agriculture, forestry and fishing sector (Fig. 13). Although reliance on agriculture is significant, there are opportunities for job creation in sustainable production and organic farming.

Figure 13. Employment in sectors with strong green jobs potential in 2017



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

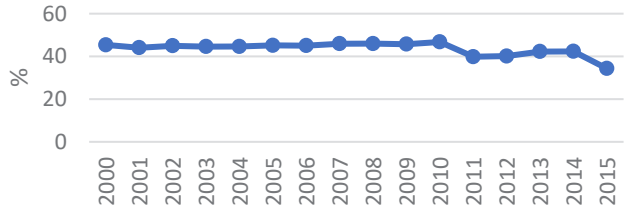
Source: ILO estimates and compilation using ILOSTAT, www.ilo.org/ilostat (accessed on: 30 December 2018).

In 2016, approximately 32 per cent of the population relied primarily on clean fuel and technology, in the sense that these do not create pollution within the home.[11] The share of renewable energy in total energy consumption has not kept pace with overall consumption. In 2000, it was 45.4 per cent but increased to 46.8 per cent in 2010 and, after some fluctuation, decreased to 34.3 per cent in 2015 (Fig. 14). However, renewable energy electricity generation has increased slightly over the last 16 years, with hydropower being the main renewable energy source in 2016 (Fig. 15).

The country's employment rate in electricity, gas, steam and air conditioning was only 0.9 per cent in 2017 (Fig. 13). With the push for increasing reliance on renewable energy, there is the potential for decent job opportunities in the future.

[8] World development indicators; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 7 August 2018).
[9] EM-DAT: The emergency events database - Universite catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium. Data accessed on: 20 July 2018.
[10] Climatological, hydrological and meteorological disasters.
[11] The proportion of the 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 the 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.

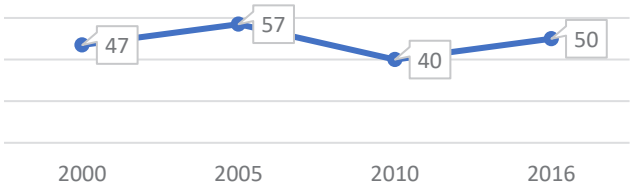
Figure 14. Renewable energy share in total energy consumption, 2000-15



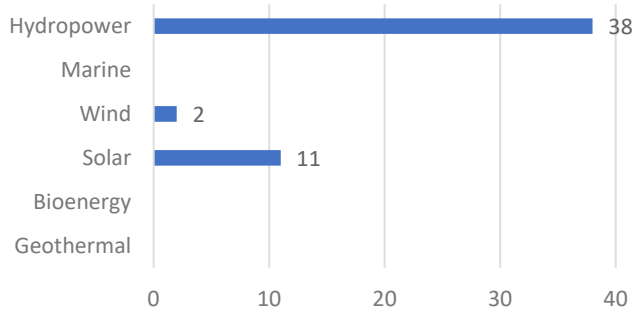
Source: ILO compilation using United Nations statistics division. SDG indicators: Global database. Available at: https://unstats.un.org/sdgs/indicators/database/ (accessed on 30 December 2018).

Figure 15. Renewable energy electricity generation, 2000-2016

Total renewable energy electricity generation (gigawatt hours - GWh)



Renewable energy electricity generation (GWh) in 2016, by technology



Source: ILO compilation using source: IRENA (2018); Renewable electricity capacity and generation statistics, June 2018. Available at: http://resourceirena.irena.org

Better data collection relating to the green economy and the environmental sector would be very valuable for policy-makers in Asia-Pacific countries. In particular, better data on green and decent jobs is 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 ensure a just transition to environmental sustainability and to monitor progress going forward.