

PACIFIC ISLANDS

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 recent 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

The Pacific Islands region (Fig. 1)¹ is an economically and culturally diverse area, sharing similar challenges and opportunities. On average, the population is growing, with a mean fertility rate of 3.1 children, life expectancy of 71.3 years and, on average, 62 per cent of the population is of legal working age (15–64 years) (Fig 2).

Figure 1. Map of Pacific Islands



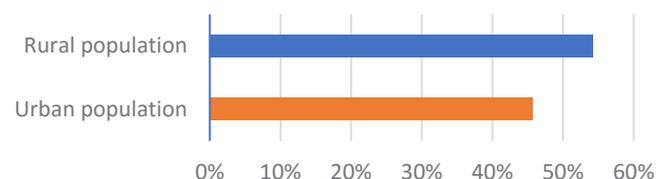
Source: www.ilo.org/suva/about-us/lang--en/index.htm

Figure 2. Pacific Islands population statistics

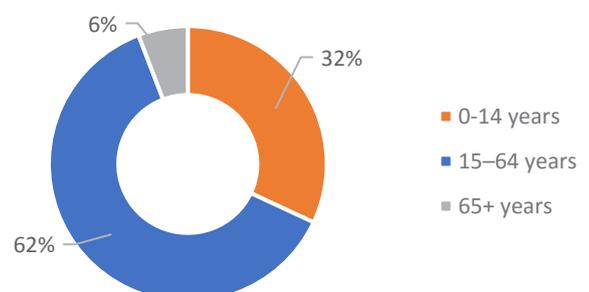
Population:² 647.4 million



Population growth rate	Fertility rate	Life expectancy at birth
0.9%	3.1 children	71.3 years



Population age categories



Note: All data and graphs calculated from the latest data available.

Source: ILO compilation using World Development Indicators, last updated: 21/05/2018; <http://data.worldbank.org/> (accessed on 18 July 2018); <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#>; ESCAP Stat, http://data.unescap.org/escap_stat/ (accessed on 18 July 2018).

¹ Cook Islands, Fiji, Kiribati, Marshall Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

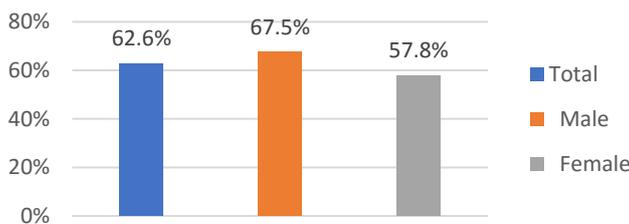
² Population data based on 2017 data.

LABOUR FORCE

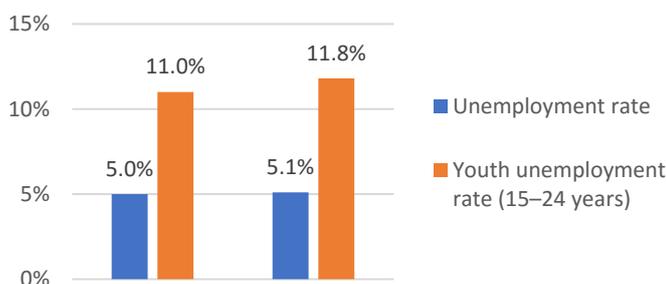
In 2018, the labour force participation rate was 60.2 per cent and the employment-to-population ratio was 62.6 per cent. The labour participation rate and employment-to-population ratio for men was over 25 percentage-points higher than those for women. The unemployment rate was 5 per cent and youth unemployment rate was 11 per cent, both of which have close to gender parity (Fig. 3). The majority of employment was in services, at more than 74 per cent.³ Agriculture provides a low share of employment, at 8.5 per cent. However, the Solomon Islands and Vanuatu are heavily dependent on agriculture, with more than 60 per cent of their total employment being in agriculture (Fig. 3). Many countries are struggling to provide jobs in industry; with four countries having less than 10 per cent of their total employment in industry - Vanuatu is the lowest at 6 per cent. Although data is limited for the industrial classification, employment in utilities is minimal, along with mining and quarrying. Data is also limited in relation to occupation classification. Based on the data available, 56 per cent of workers in the region are employed in medium-skilled professions, which rises to more than 80 per cent in Papua New Guinea and Tonga. The Solomon Islands had the highest percentage of low-skilled professions and Samoa had the highest rate of high-skilled professions (Fig. 3).

Figure 3. Basic employment statistics for the Pacific Islands region

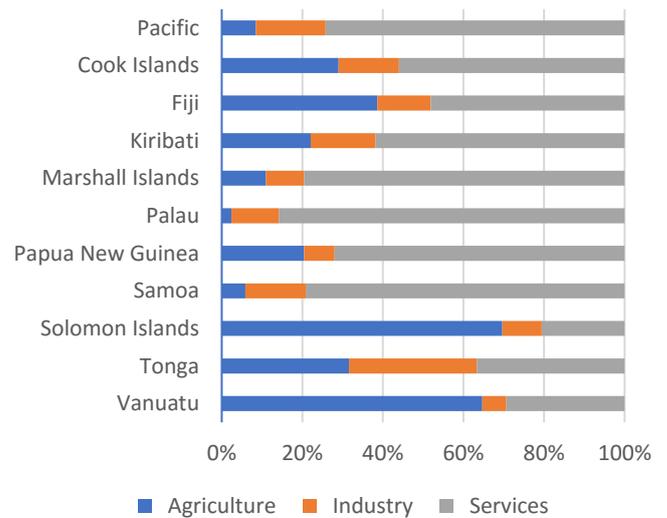
Employment-to-population, 2018 (15+ years)^a



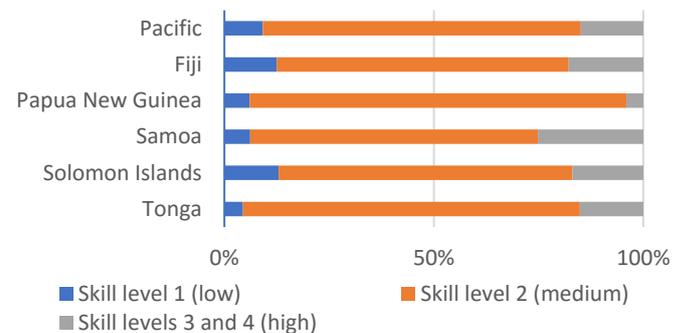
Unemployment, 2018^b



Employment by sector, 2018 (15+ years)^c



Employment by occupation, 2018^d



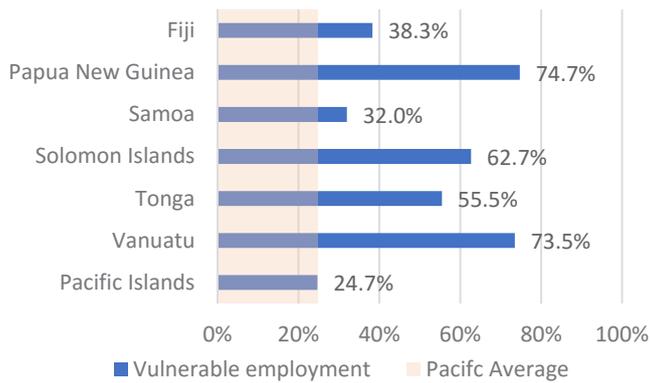
Note: ILO estimates. Labour force participation rate and unemployment rate: aged 15 years and older. Youth unemployment: aged 15–24 years. Employment by occupation: skill level 1 (low) for elementary occupations; skill level 2 (medium) for clerical, service and sales workers, skilled agricultural and trade workers, plant machinists and assemblers; and skill levels 3 and 4 (high) for managers, professionals and technicians. a) Kiribati (2010); no data available for Cook Islands, Marshall Islands, Palau; b) Kiribati (2010); no data available for Cook Islands, Marshall Islands, Palau, Tuvalu; c) Cook Islands (1995); Palau (2008); Kiribati, Marshall Islands (2010); no data for Tuvalu; d) no data available for Cook Islands, Kiribati, Marshall Islands, Palau, Tuvalu.

Source: ILO estimates and compilation using ILOSTAT, www.ilo.org/ilostat (accessed 18 July 2018).

Across the Pacific Islands, 24.7 per cent of employment is classified as “vulnerable”. Papua New Guinea and Vanuatu have the highest rates of vulnerable employees, at nearly 75 per cent, which is most likely due to their large reliance on agriculture (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.

³ Cook Islands (1995); Palau (2008); Kiribati, Marshall Islands (2010); Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu (2018); Tuvalu (No data)

Figure 4. Vulnerable employment, 2018

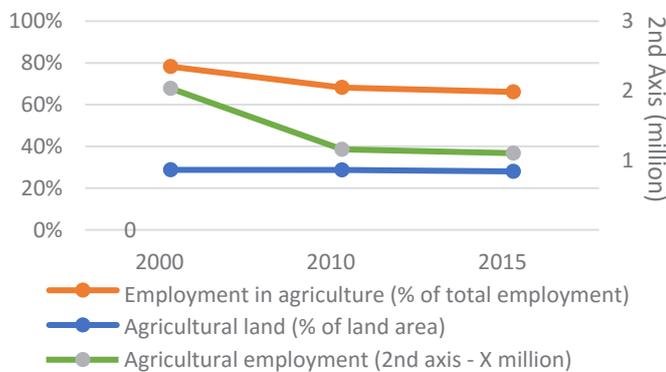


Note: ILO estimates. Vulnerable employment includes own-account workers and contributing family workers from ILO status of employment data. Data is not available for the Cook Islands, Kiribati, Marshall Islands, Palau, Tuvalu.

Source: ILO estimates and compilation using ILOSTAT, www.ilo.org/ilostat (accessed 13 June 2018).

Agricultural land remained steady between 2000 and 2015, while agricultural employment fell from 2.0 to 1.1 million. The share of agricultural employment within total employment fell by approximately 11 percentage points due to faster job creation in other sectors (Fig. 5).

Figure 5. Agricultural land and agricultural employment, 2000-2015



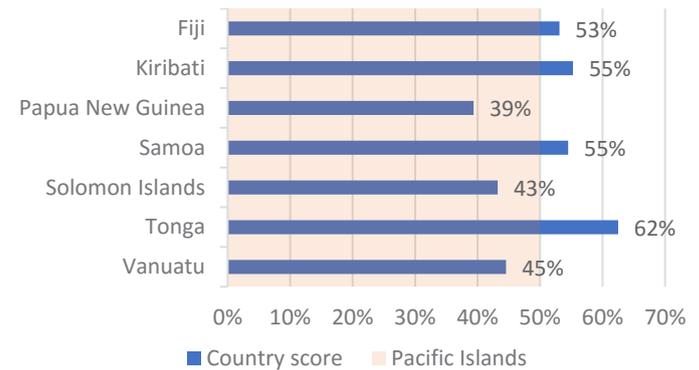
Note: Agricultural land area is an average data of Pacific member countries.

Source: ILO compilation using World Development Indicators, Last Updated: 05/21/2018. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#> (accessed on 22 July 2018).

ENVIRONMENTAL ISSUES

The average Environmental Performance Index (EPI)⁴ score for the Pacific islands is 50.35 (with 0 being furthest from the high-performance benchmark target of 100)⁵ - only 1.36 below the average Asia-Pacific score. Tonga and Kiribati are the best-performing countries, while the Solomon Islands and Papua New Guinea have the lowest EPI score (Fig. 6).

Figure 6. Environmental Performance Index 2018 Score - Pacific Islands countries

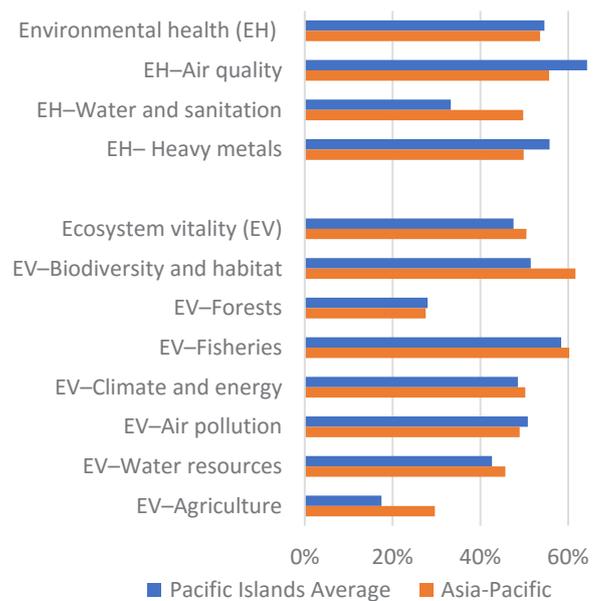


Source: ILO compilation using "2018 EPI Scores - Current". EPI Yale. Retrieved 14-06-2018. Available: <https://epi.envirocenter.yale.edu>

The Pacific Island region outperforms the Asia-Pacific region in five EPI categories: environmental health, air quality, heavy metals, ecosystem vitality, agriculture and forests (Fig. 7). However, there is significant room for improvement in all environmental areas, especially in ecosystem vitality: water resources, climate and energy, fisheries, agriculture, and biodiversity and habitat (Fig. 7). Measures to adapt to 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.

Figure 7. Average Pacific Islands region EPI environmental category scores

Environmental Performance Index (2018)



Note: Data is not available for Cook Islands, Marshall Islands, and Palau

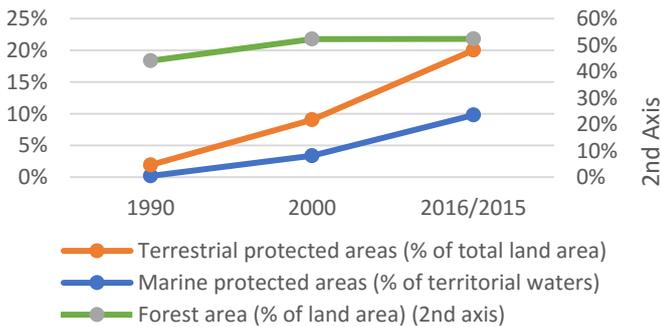
Source: ILO compilation using "2018 EPI Scores - Current". EPI Yale. Retrieved 14-06-2018. Available: <https://epi.envirocenter.yale.edu>

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

⁵ Average calculated from the scores for Pacific Islands member countries

Forest area across the Pacific Islands increased slightly, and both terrestrial and marine protected areas had notable increases (more than 8 percentage points) between 1990 and 2016, although both remain very small areas (Fig. 8). Over time, there will be increased prospects in the green economy, such as jobs in resource management and protection and management of natural resource utilization within public administration.

Figure 8. Forest area and terrestrial and marine protection areas, 1990-2016

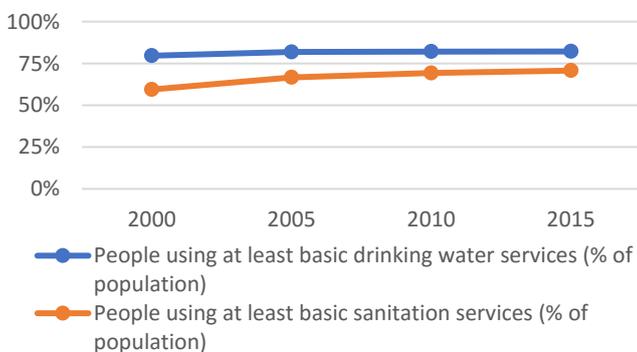


Note: The graph reflects the average for the Pacific member states. The latest data for forest area is of 2015 and other data is from 2016. Note: data is not available for Cook Islands.

Source: ILO compilation using World Development Indicators, last update: 21/05/2018; <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#> (accessed July 2018).

Since 2000, there has been a gradual increase in access to basic water services, to an average of 82 per cent in 2015, and access to basic sanitation services, to an average of 70 per cent (Fig. 9). Both are still below the ideal threshold of 100 per cent. Only 0.4 per cent of the labour force was employed in water supply, sewerage, waste management and remediation activities (Fig 13).

Figure 9. Basic drinking water and sanitation access, 2000-2015



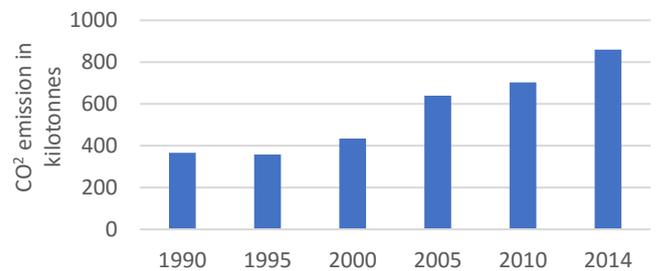
Note: Data is the average for the Pacific member states. Data is not available for the Cook Islands.

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 20 July 2018).

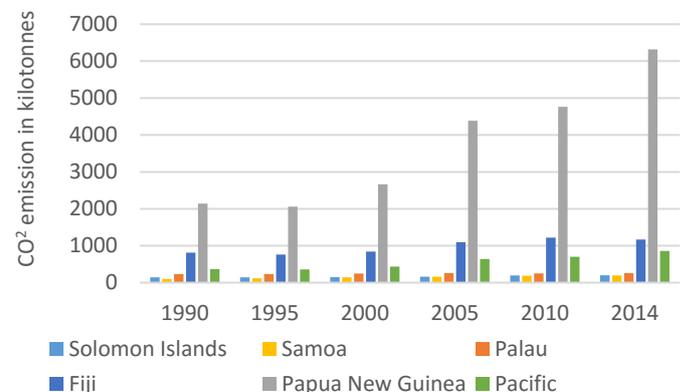
AIR QUALITY

The aggregate carbon dioxide (CO²) emission levels for the Pacific Islands region have increased gradually from 1990 to 2014, mainly due to by-products from energy production and use. Among the top five CO² emitting countries in the Pacific Islands region from 1990 to 2014, Papua New Guinea has the highest levels, followed by Fiji, Palua and the Solomon Islands, with Samoa having the lowest levels of the five (Fig. 10). Major sources of CO² emissions in Papua New Guinea are cement manufacturing and combustion of fossil fuels, mainly diesel, gasoline and kerosene. The increased emission levels are mainly due to power generation.

Figure 10. CO² emission for Pacific Islands, 1960-2014



CO² emissions for the top five emitting countries in Pacific Islands



Note: The graph is the sum of the data from all Pacific member states. Data is not available for Cook Islands.

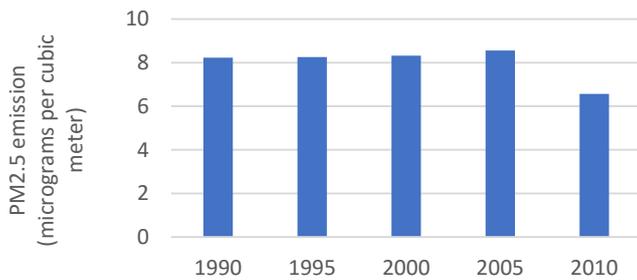
Source: ILO compilation using World Bank indicators; <https://data.worldbank.org/indicator/EN.ATM.CO2E.KT> (accessed on 23 July 2018).

The aggregate PM_{2.5} (atmospheric particulate matter with a diameter of less than 2.5 micrometres) emission levels⁶ in the Pacific Islands region remained steady from 1990 to 2016 (Fig. 11). Among the top five PM_{2.5} emitting countries in the Pacific Islands region from 1990 to 2016, Papua New Guinea has the largest emission levels followed by the Marshall Islands, Vanuatu and Fiji, whereas the Solomon Islands has the lowest rate. Applying the Just Transition Guidelines, an

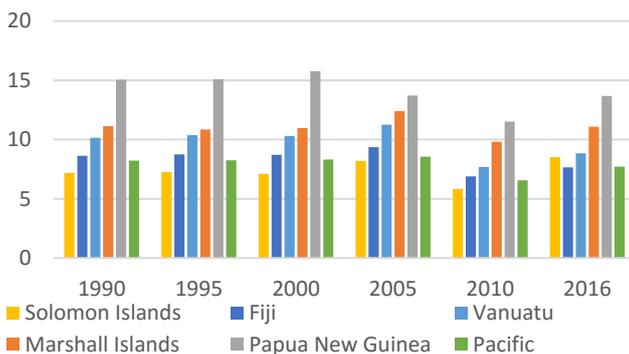
⁶ Source: Brauer, M. et al. 2016, for the Global Burden of Disease Study 2016. Data provided by Institute for Health Metrics and Evaluation, University of Washington, Seattle. <https://data.worldbank.org/indicator/EN.ATM.PM25.MC.M3?view=chart>

area of possible intervention includes efforts to reduce harmful emissions that can 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.

Figure 11. PM_{2.5} emission in the Pacific Islands region, 1990-2016



PM_{2.5} emissions for the top five emitting Pacific Islands countries



Note: The graph is the average of the data from the Pacific Islands member states. The data is not available for Cook Islands and Palau.

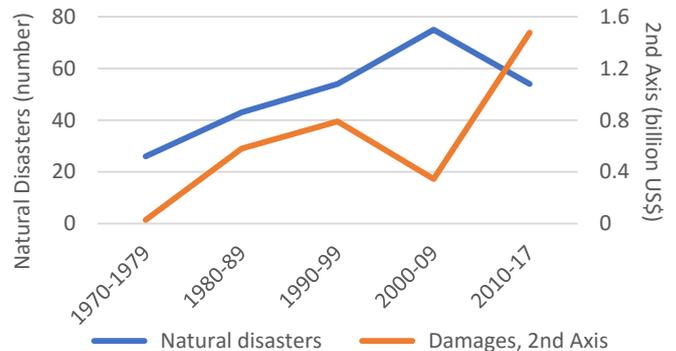
Source: ILO compilation using World Bank indicators; <https://data.worldbank.org/indicator/EN.ATM.PM25.MC.M3?view=chart> (accessed on 23 July 2018).

CLIMATE CHANGE IMPACTS

According to the *World Risk Report*⁷, five Pacific countries are among the top 20 countries globally that are the most affected by disaster risk—they are exposed to natural hazards and, owing to their poor economic and social situations, are particularly vulnerable. Of concern is that 14.7 per cent of the total land area in the Pacific Islands region is less than 5 metres above sea level and 12.6 per cent of the total population lives in this area⁸. According to the Emergency Events Database⁹, there has been a general increase in the number of natural disasters¹⁰ as well as the financial impact of the damage per decade since the 1970s (Fig. 12).

Developing preventative measures to limit infrastructure and property damage and increasing institutional capacity to respond to climate events, particularly for small businesses, can be a source of decent job creation that also works towards building resilience.

Figure 12. Natural disaster occurrence and damage costs in Pacific Islands countries



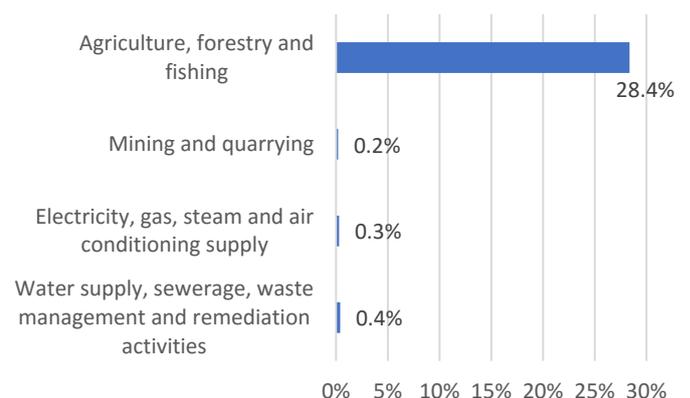
Note: Sum of data for member states. Natural events include climatological, hydrological and meteorological.

Source: 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.

GREEN JOBS POTENTIAL

According to recent data, 28.4 per cent of total employment in the Pacific Islands region was in the agriculture, forestry and fishing sector (Fig. 13). Although reliance on agriculture is significant, there are opportunities for job creation for sustainable production and organic farming.

Figure 13. Employment in sectors with strong green jobs potential, Pacific Islands region



Note: These sectors have the most potential for green job opportunities. Employment by selected 1-digit sector level (ISIC - Rev. 4, 2008). This data is an average of Fiji (2016), Samoa (2014), Vanuatu (2009). The data is not available for other countries.

Source: ILO estimates and compilation using ILOSTAT, www.ilo.org/ilostat (accessed 25 June 2018).

⁷ Bündnis Entwicklung Hilft and United Nations University – EHS (2016) World Risk Report 2016, available at: <http://weltrisikobericht.de/english/>

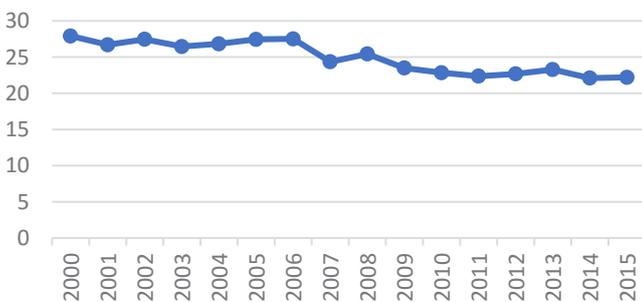
⁸ World Bank (2018) Data: World Development Indicators, available at <http://data.worldbank.org/data-catalog/world-development-indicators>

⁹ EM-DAT: The Emergency Events Database - Universite catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium. Data accessed on: 13 June 2018.

¹⁰ Climatological, hydrological and meteorological disasters.

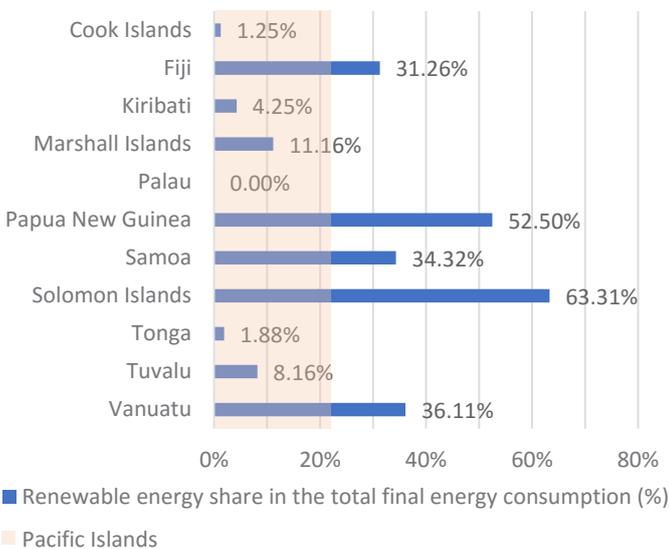
The share of renewable energy in total energy consumption has been declining steadily, from an average of 28 per cent in 2000 to 22 per cent in 2015 (Fig. 14). Renewable energy consumption was over 50 per cent in Papua New Guinea and the Solomon Islands, while Palau had zero consumption (Fig. 15). Renewable energy generation within the Pacific Islands has been increasing over the past 16 years, and the majority of that was generated through hydropower (Fig 16). There is no data on employment in renewable energy for the region. The average employment rate for the region in electricity, gas, steam and air conditioning activities was 0.7 per cent (Fig. 13). The Pacific Islands have the opportunity to increase their renewable energy production, which will provide job opportunities in the industry in the future.

Figure 14. Trend in renewable energy share within total energy consumption, 2000-15



Note: Data is the average for the Pacific Islands countries.
Source: ILO compilation using UN SDG indicators: Global Database. Available at: <https://unstats.un.org/sdgs/indicators/database/> (accessed on 19 July 2018).

Figure 15. Renewable energy share in the total final energy consumption in 2016, by country



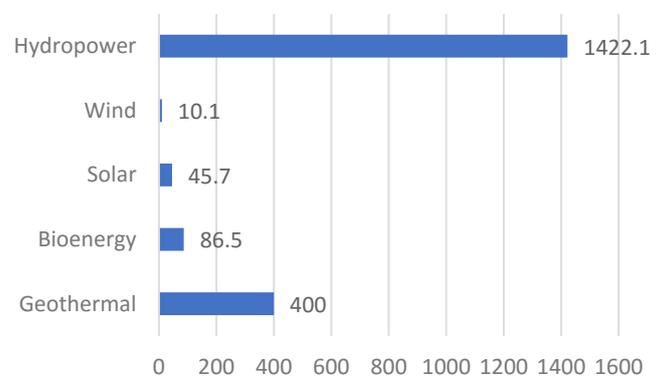
Note: Data is the average for the Pacific Islands member states.
Source: ILO compilation using UN SDG indicators: Global Database, Last updated: 30 November 2017. Available at: <https://unstats.un.org/sdgs/indicators/database/> (accessed on 13 June 2018).

Figure 16. Renewable energy generation, Pacific Islands

Total renewable energy electricity generation (gigawatt hours - GWh)



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



Note: The graph is the sum of the data from all Pacific member states.
Source: ILO compilation using IRENA (2018), Renewable capacity statistics 2018, last updated on December 2017, available at: <http://resourceirena.irena.org/gateway/dashboard/> (accessed 24 July 2018).

Better data collection relating to the green economy and the environmental sector would be very valuable for policy-makers in Pacific Island 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.

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