

PAPUA NEW GUINEA

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 Papua New Guinea



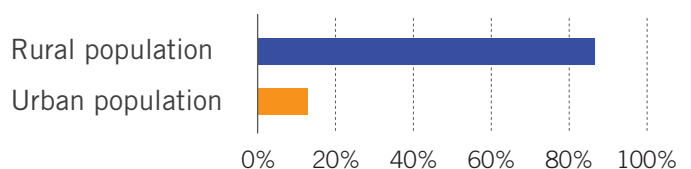
Papua New Guinea² is located in the south-western Pacific Ocean, just north of Australia. The country occupies the eastern half of New Guinea island (Fig. 1). Its population is largely rural and growing, with a fertility rate of 3.7 children and life expectancy at 62.8 years (2015). Around 60 per cent of the population is of working age (15–64 years) (Fig. 2).

Figure 2. Demographics for Papua New Guinea

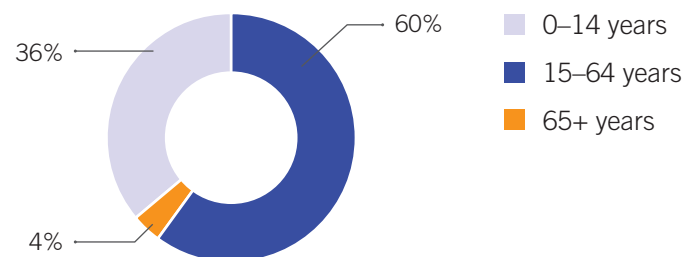
Population: 8.08 million



Population growth rate	Fertility rate	Life expectancy at birth
2.1%	3.7 children	62.8 years



Population age categories



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

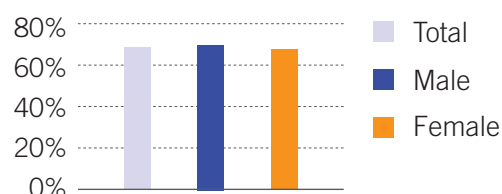
Source: ILO compilation using World Bank: World development indicators, last updated 20 July 2017, <http://databank.worldbank.org> (accessed 30 July 2017).

1. The fact sheet is based on available data only.
2. Papua New Guinea became a member of the International Labour Organization in 1976.

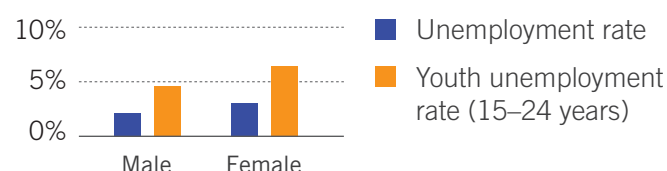
In 2017, the labour force participation rate is 70.5 per cent, and the employment-to-population ratio is 68.7 per cent, both close to gender parity. Total unemployment is 2.5 per cent, and youth unemployment is slightly higher, at 5.5 per cent, with the female rates 2 percentage points higher than the male rates. Employment is heavily reliant on agriculture³ and on medium-skilled occupations (Fig. 3).

Figure 3. Basic employment statistics for Papua New Guinea, 2017

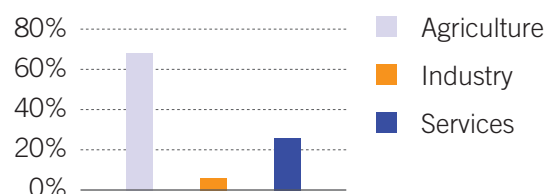
Employment-to-population ratio (15+ years)



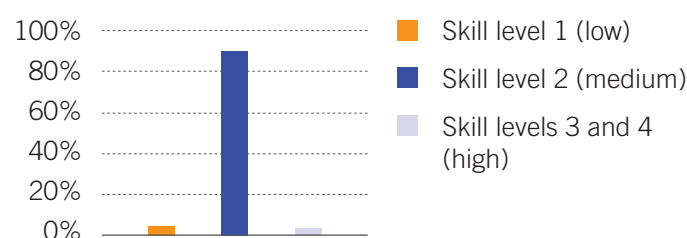
Unemployment



Employment by sector (15+ years)



Employment by occupation

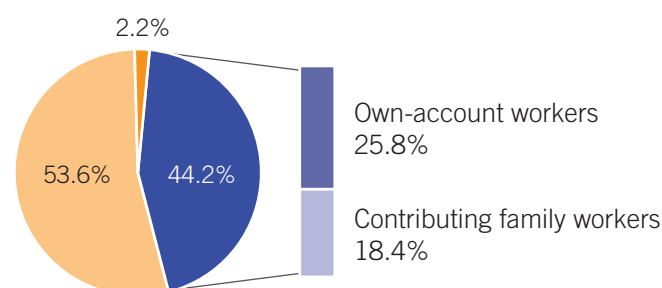


Note: ILO estimates. Labour force participation rate and unemployment: aged 15 years and older. Youth unemployment: aged 15–24 years. Employment by occupation: skill level 1 (low) for elementary occupations; skill level 2 (medium) for clerical, service and sales workers, skilled agricultural and trade 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 Papua New Guinea as of 2017 accounts for 44.2 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



■ Vulnerable employment

■ Employees

■ Employers

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 Papua New Guinea is among the top ten countries in the world with very high risk due to its very high exposure, vulnerability and susceptibility to natural disasters and environmental damage and its limited institutional capacity to respond and adapt. Only 0.5 per cent of the total land area is below 5 meters above sea level and 0.5 per cent of the total population lives in this area.⁵ According to the Emergency Events Database,⁶ there have been 37 natural disasters since 1970;⁷ 22 of them occurred since 2000. The natural disasters were mainly droughts, landslides, floods and tropical cyclones which resulted in 862 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.

Papua New Guinea ranks 156 of 180 countries in the Environmental Performance Index (EPI), with a score of 48.02 (with 0 furthest from the high-performance

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/>.

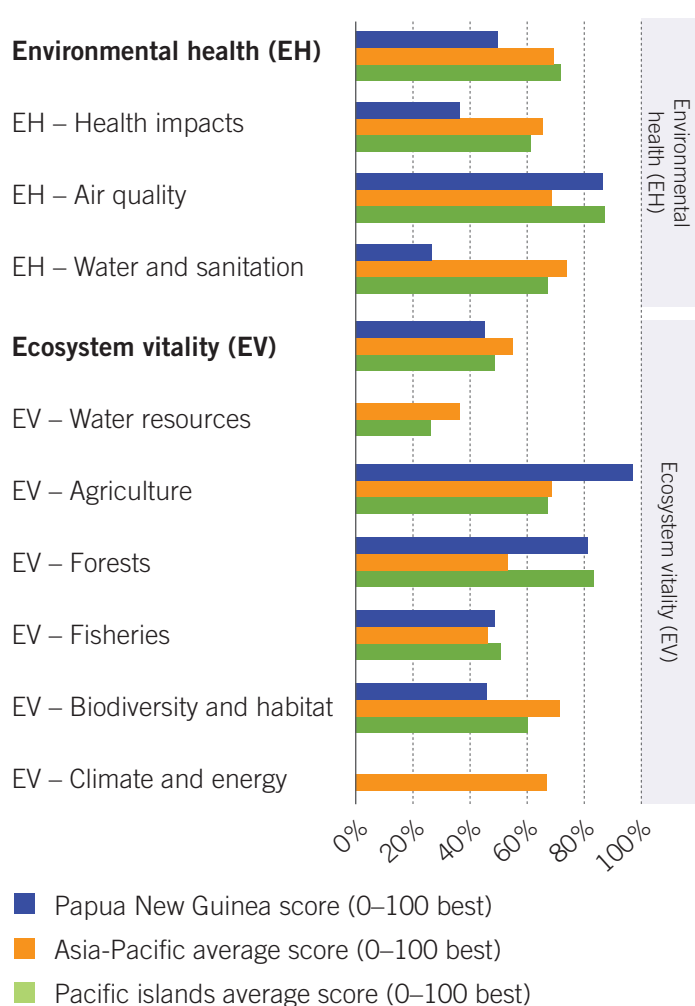
5. World Bank: World development indicators, last updated 20 July 2017, <http://databank.worldbank.org/>.

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.

benchmark target of 100). The country outperforms the average EPI scores for the Pacific islands and the Asia-Pacific region in agriculture and matches the Pacific island score for air quality.⁸ There is room for improvement in all environmental areas, especially in the environmental health categories (in health impacts, water and sanitation) and in some ecosystem vitality categories (in water resources, fisheries, and biodiversity and habitat) (Fig. 5). 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.

Figure 5. Environmental Performance Index 2016 for Papua New Guinea

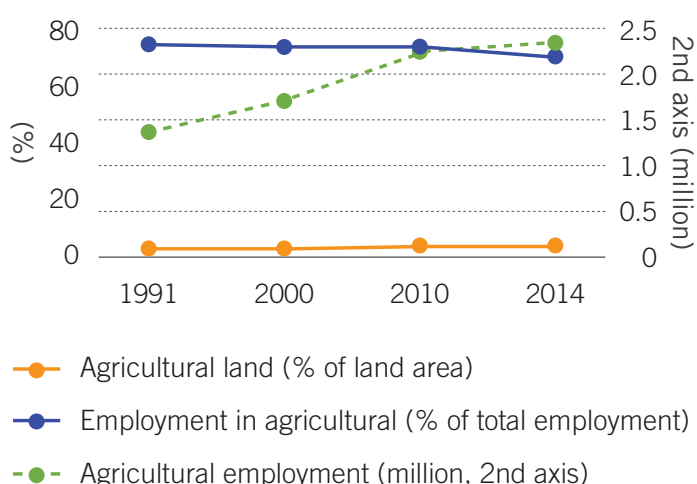


Note: Score 1–100 best. Papua New Guinea: No score for EV–Water resources and EV–Climate and energy due to lack of data. Pacific islands and Asia-Pacific: Each score is an average of all data for ILO member States in the subregion and region, respectively, excluding four countries with no data (Cook 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.

The rural population growth rate was 2.1 per cent in 2015. Between 1991 and 2014, the share of agricultural land in total land area remained low but increased slightly to 2.6 per cent in 2014.⁹ Agricultural employment grew substantially during the same period and continues to dominate total employment despite its share having declined by 10 percentage points to 69.4 per cent in 2014, due to faster job growth in other sectors (Fig. 6). Since agricultural production is highly vulnerable to climate shocks, the high share of employment in this sector exposes many workers to these shocks. Forest area decreased slightly between 2000 and 2014, but still accounted for 74.1 per cent of total land area in 2014. Terrestrial and marine protected areas represent only small proportions of total land area and territorial waters, respectively (Fig. 7). In 2000, 71.1 per cent of all employment was in the agricultural, hunting and forestry sector, while 1.3 per cent was in the fishing sector (Fig. 8). Although reliance on agriculture is large there are opportunities for job creation for sustainable production and organic farming. A transition to a low-carbon and resource-efficient economy will also require a significant expansion of employment in a number of green economic activities, such as those related to resource management or environmental services (for example, waste management and reforestation).¹⁰

Figure 6. Agricultural land and agricultural employment, 1991–2014

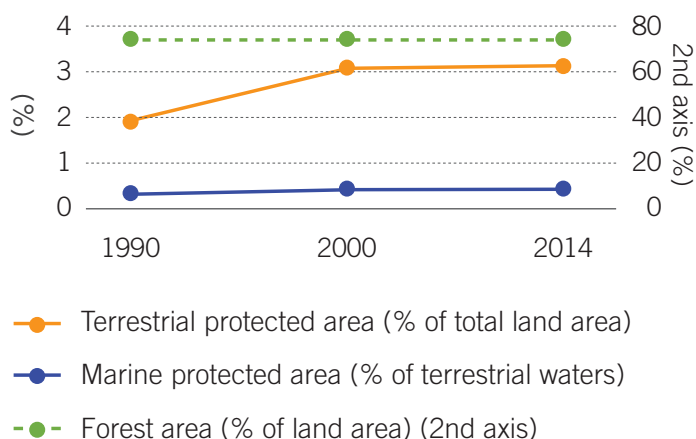


Source: ILO compilation using World Bank: World development indicators, last updated 20 July 2017, <http://databank.worldbank.org/>; ILOSTAT, <http://www.ilo.org/ilostat> (accessed 30 July 2017).

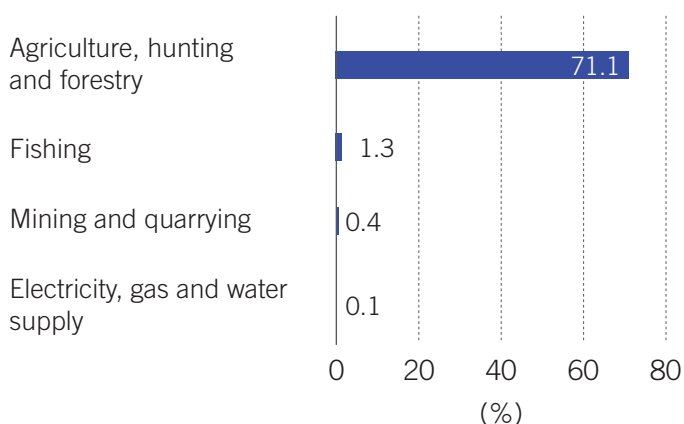
8. Due to lack of data, the score for EV–Climate and energy could not be calculated.

9. World Bank: World development indicators, last updated 20 July 2017, <http://databank.worldbank.org/>.

10. 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>.

Figure 7. 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).

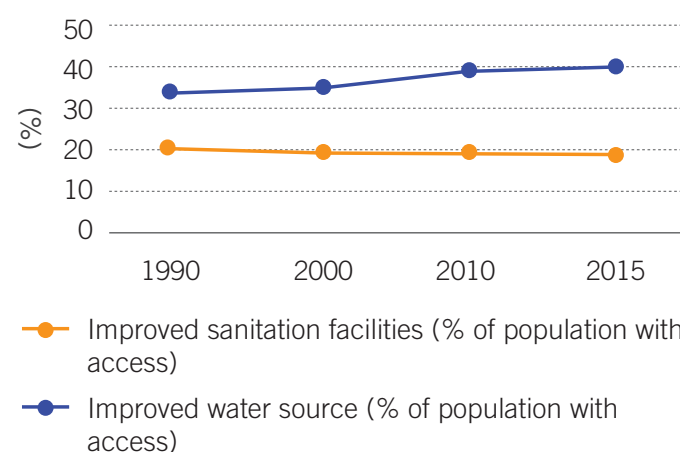
Figure 8. Employment in sectors with strong green jobs potential, 2000

Note: These sectors have the most potential for green job opportunities. Employment by selected 1-digit sector level (ISIC-Rev. 3, 1990).

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

Since 1990, there has been a gradual increase in access to an improved water supply, to 40 per cent in 2015, while access to improved sanitation has slightly decreased, to 18.9 per cent in 2015 (Fig. 9). Both rates remain well below the ideal threshold of 100 per cent. According to the Asian Development Bank,¹¹ there are no reliable data available on waste management in Papua New Guinea. As of 2014, 36 private contractors operated the municipal solid waste collection system for

Port Moresby, with collections occurring twice a week, most of which was disposed in the Baruni dumpsite. The dump has no environmental protection system, the waste is uncovered, and waste pickers recover recyclable materials.¹² Improvement in water supply, sanitation access and the municipal waste management system for waste collection, safe and sustainable disposal, recycling and composting practices will provide decent job opportunities in the future.

Figure 9. 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).

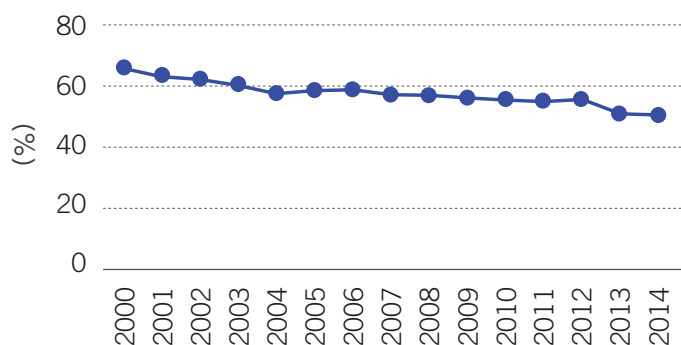
In 2014, 31.3 per cent of the population relied primarily on clean fuel and technology, in the sense that they do not create indoor pollution within the home. The share of renewable energy in the total energy consumption fell from 66.4 per cent in 2000 to 50 per cent in 2014 (Fig. 10). Renewable energy generation increased between 2011 and 2013 but then dropped in 2014, with hydropower and geothermal the main sources (Fig. 11). There are no data available on renewable energy sector employment. The employment share of the electricity, gas and water supply sector was only 0.1 per cent in total employment in 2000 (Fig. 8). Improvements in utilities will provide benefits on three fronts: community health, environmental health (reducing air, land and water pollution) and the economy, with increased employment opportunities.¹³

11. Asian Development Bank: *Solid waste management in the Pacific: Papua New Guinea country snapshot* (Manila, 2014), <https://www.adb.org/sites/default/files/publication/42664/solid-waste-management-png.pdf>.

12. *ibid.*

13. ILO: *Working towards sustainable development: Opportunities for decent work and social inclusion in a green economy* (Geneva, 2012).

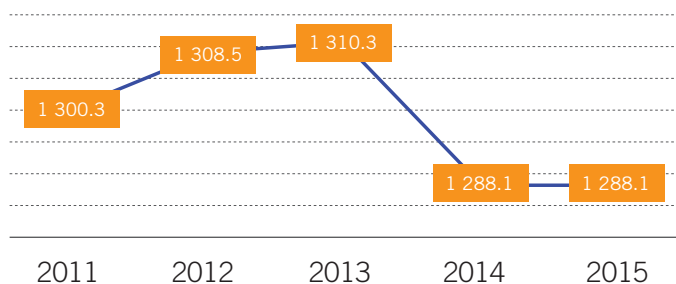
Figure 10. Renewable energy share in total final energy consumption, 2000–2014



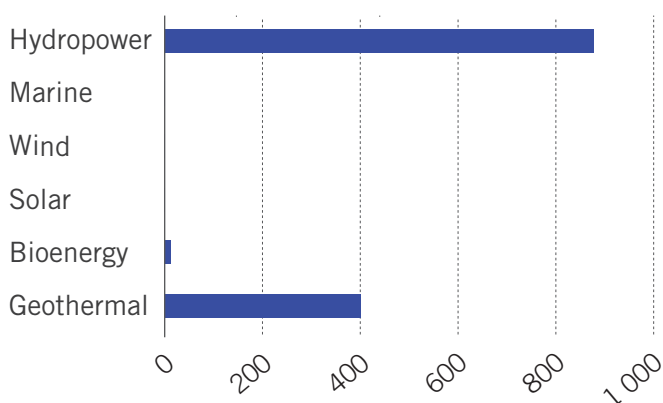
Source: ILO compilation using UN: SDG indicators: Global database (2017), <https://unstats.un.org/> (accessed 17 July 2017).

Figure 11. Renewable energy generation, 2011–2015

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).

Better data collection relating to the green economy and the environmental sector would be valuable for policy-makers in Papua New Guinea 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.