Decent Work

International Labour Organization

TIMOR LESTE

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

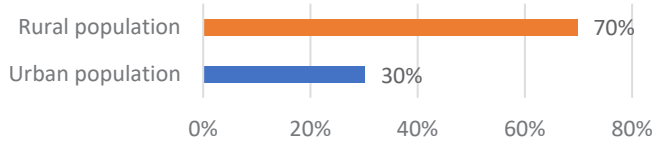
Timor-Leste[1] is located in South-East Asia and occupies the eastern half of Timor Island (Fig. 1). Its population is mostly rural and growing, with a fertility rate of 5.3 children and life expectancy of 69.5 years. Around 53 per cent of the population is of legal working age (15–64 years) (Fig. 2).

Figure 1. Map of Timor-Leste

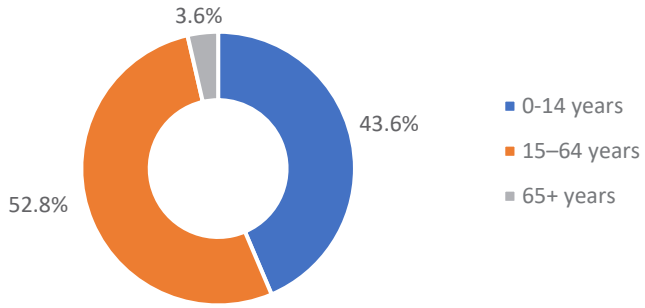
Figure 2. Timor-Leste population statistics

Population:[2] 1.3 million

Population growth rate	Fertility rate	Life expectancy at birth
2.2%	5.3 children	69.5 years



Population age categories



Note: data is for 2017, except fertility rate and life expectancy (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 18 July 2018).

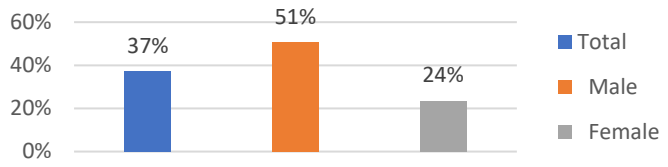
[1] Timor-Leste became a member of the International Labour Organization in 2003.
[2] Population data based on 2017 data.

LABOUR FORCE

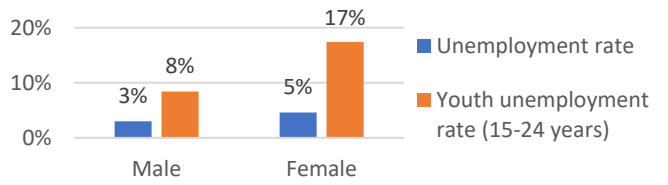
In 2018, the labour force participation rate was 38.6 per cent and the employment-to-population ratio was 37.2 per cent. Both these rates are more than 26 percentage points higher for men than for women. The total unemployment rate was 3.5 per cent, and the youth unemployment rate was 11.6 per cent, with the female youth unemployment rate 9 percentage points higher than the male rate. The ratio of youths aged 15-24 years not in education, employment or training was 24.3 per cent in 2013.[3] Employment is heavily reliant on services, and on medium-skilled occupations (Fig. 3).

Figure 3. Basic employment statistics for Timor-Leste, 2018

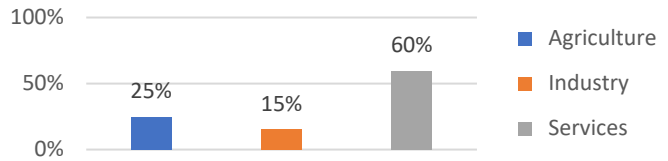
Employment-to-population, 2018 (15+ years)



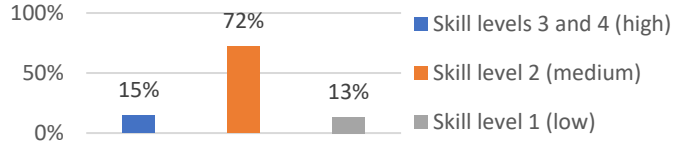
Unemployment, 2018



Employment by sector, 2018 (15+ years)



Employment by occupation, 2018

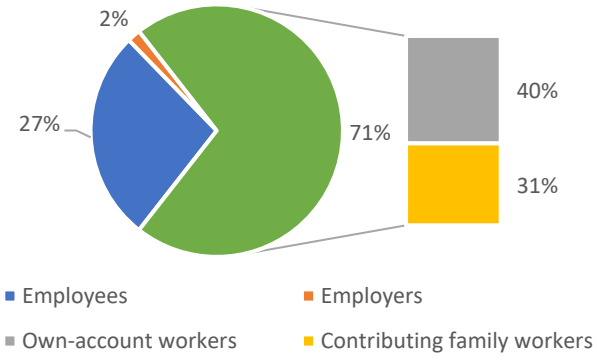


Note: ILO estimates. Labour force participation rate and unemployment: aged 15 years and older. Youth unemployment: aged 15–24 years. Employment by occupation: skill level 1 (low) for elementary occupations; skill level 2 (medium) for clerical, service and sales workers, skilled agricultural and trade 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 18 July 2018).

Vulnerable employment in Timor-Leste as of 2018 accounted for 71.1 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

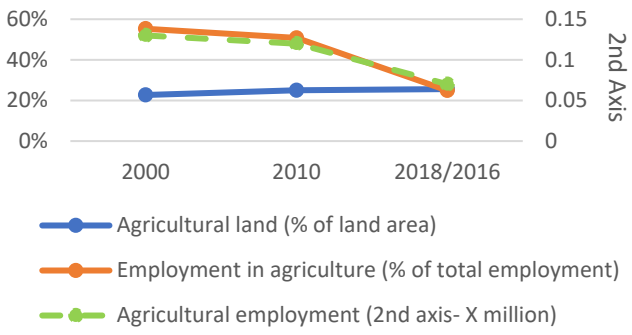


Note: ILO estimates. Vulnerable employment includes own-account workers and contributing family workers from ILO status of employment data.

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

Rural population growth was 1.6 per cent in 2017. The share of agricultural land in total land area increased by 3 percentage points between 2000 and 2016, and agricultural employment decreased from 0.13 million to 0.07 million people. The share of agricultural employment in total employment fell by approximately 30 percentage points due to much 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.

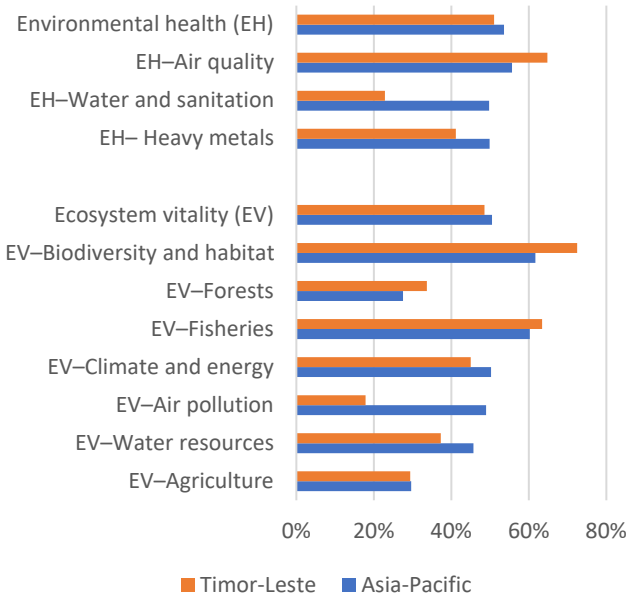
Source: ILO compilation using World Development Indicators, last updated: 28/06/2018; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 20 July 2018).

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

ENVIRONMENTAL ISSUES

Timor-Leste ranks at number 125 of 180 countries in the Environmental Performance Index (EPI),[4] with a score of 49.54 (with 0 being furthest from the high-performance benchmark target of 100). Timor-Leste outperforms the average score for Asia and the Pacific (Fig. 6) in some of the EPI categories, including air quality, fisheries, forest, biodiversity and habitat, and agriculture. However, there is room for improvement, especially in environmental health (in heavy metals, water and sanitation) and ecosystem vitality (in climate and energy, air pollution and water resources). Action to address climate change and improve environmental health, ecosystem vitalityand resilience to weather disasters all have the potential to provide job creation, green economy growth and innovation in Timor-Leste.

Figure 6. Environmental performance index for Timor-Leste, 2018

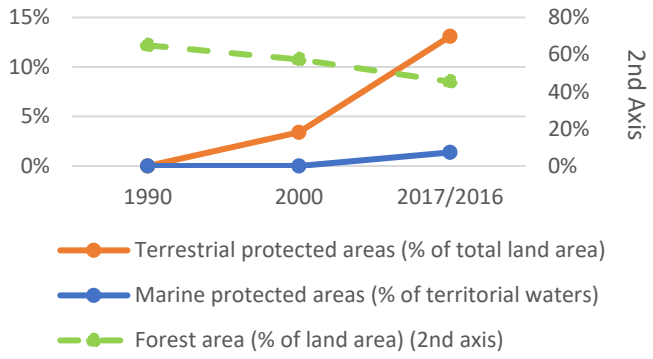


Note: Score 0 (worst) –100 best. Asia-Pacific: data is for ILO member states in the region, excluding Cook Islands, Marshall Islands, Palau and Tuvalu.

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

Forest area decreased between 1990 and 2016, to approximately 45 per cent of total land area. From 1990 to 2017, the share of terrestrial protected area increased, reaching 13.1 per cent of total land area, and the proportion of marine protected area also increased from 0 to 1.37 per cent (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

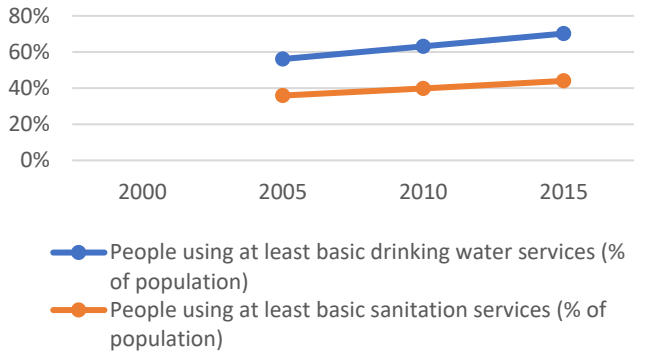


Note: data for forest area is from 2016 and other data is from 2017.

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 2005, there has been a gradual increase in access to basic drinking water, to an average of 70.2 per cent in 2015, and access to basic sanitation, to an average of 44 per cent in 2015 (Fig. 8). Both are still far below the ideal threshold of 100 per cent. Only 0.3 per cent of the labour force was employed in water supply, sewerage, waste management and remediation activities in 2013 (Fig. 12). Improvement in water supply and sanitation access could provide decent job opportunities in the future.

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



Note: Data for 2000 is not available.

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 25-06-2018).

[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: https"//epi.envirocenter.yale.edu

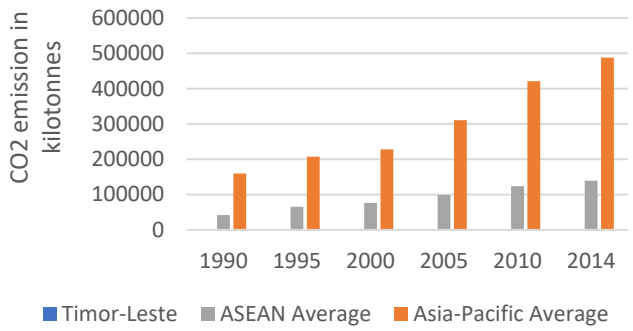
[5] Organisation for Economic Co-operation and Development: The jobs potential of a shift towards a low-carbon economy, OECD Green Growth Papers, No. 2012/01 (Paris, 2012), http://dx.doi.org/10.1787/5k9h3630320v-en.

AIR QUALITY

The carbon dioxide (CO^2) emission levels for Timor-Leste have increased sharply by an average of 12 per cent from 2005 to 2014 (Fig. 9).[6] The increase was due primarily to the energy sector (power generation and transportation). Other sources are: industries; land use change and forestry; and waste.[7] The level of emissions is so much lower than the Asia-Pacific and ASEAN averages that it appears negligible.

The $PM_{2.5}$ atmospheric particulate matter with a diameter of less than 2.5 micrometres) emission levels for Timor-Leste decreased slightly from 2000 to 2016 (Fig. 10). Overall $PM_{2.5}$ emission levels exceeded the World Health Organization's Air Quality Guideline threshold level, thus indicating high emissions. Timor-Leste shows lower levels of emission than both the ASEAN and the Asia-Pacific averages.

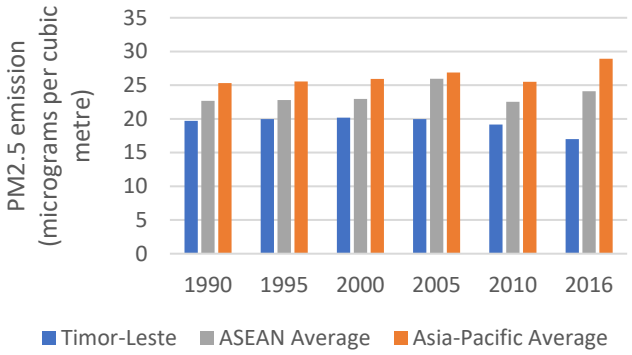
Figure 9. CO^2 emissions for Timor-Leste, 1990-2014



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.PM25.MC.M3?view=chart (accessed on 04-07-2018).

Figure 10. $PM_{2.5}$ emissions for Timor-Leste, 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 04-07-2018).

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.

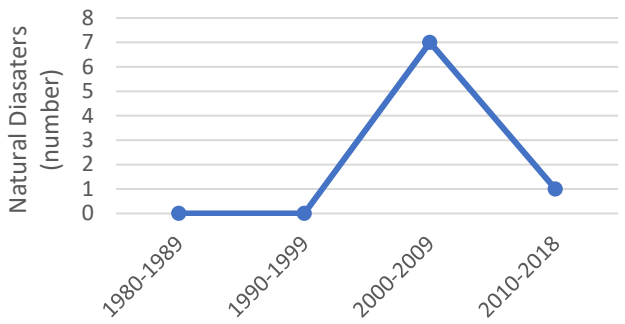
CLIMATE CHANGE IMPACTS

According to the *World Risk Report,*[8] Timor-Leste has a very high World Risk Index score. It ranks number 10 of 171 countries because of its very high exposure to natural hazards and limited institutional capacity to cope and adapt. Part of the country's vulnerability relates to the 0.9 per cent of the total population who, in 2010, lived in the 0.7 per cent of the total land area below 5 metres above sea level.[9]

According to the *Emergency Events Database,*[10] there was a substantial increase in natural disasters[11] between 2000 and 2009 (Fig. 11). The natural disasters in that time were mostly storms, floods and droughts. 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.

[6] The value is calculated on the basis of CAGR (compound annual growth rate).
[7] Timor-Leste's initial national communication. Under United Nations Framework Convention on Climate Change, 2011; http://www.tl.undp.org/content/dam/timorleste/docs/reports/ENV/2014-06-INC_A4_English_Executive_Summary%20(2).pdf
[8] Bündnis Entwicklung Hilft and United Nations University – EHS (2017) World Risk Report 2017, available at: http://weltrisikobericht.de/english/
[9] World Development Indicators; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 7 August 2018).
[10] 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.
[11] Climatological, hydrological and meteorological disasters.

Figure 11. Natural disaster occurrence in Timor-Leste



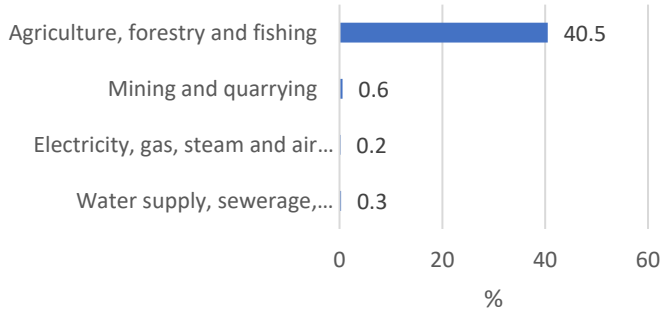
Note: Natural events include climatological, hydrological and meteorological disasters.

Source: EM-DAT: The emergency events database - Universite catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium. Data accessed on: 20 July 2018.

GREEN JOBS POTENTIAL

In 2013, 40.5 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 12. Employment in sectors with strong green jobs potential in 2017

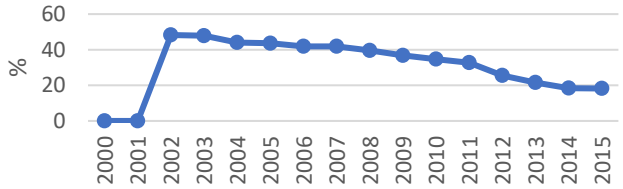


Note: These sectors have the most potential for green job opportunities. Employment by selected 1-digit sector level (ISIC - Rev. 4, 2008)

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

In 2017, approximately 7.5 per cent of the population relied primarily on clean fuel and technology, in the sense that these do not create pollution within the home.[12] The share of renewable energy in total energy consumption has not kept pace with overall consumption. In 2000, it was 0 per cent but increased to 34.69 per cent in 2010 and, after some fluctuation, fell to 18.22 per cent in 2015 (Fig. 13). However, renewable energy electricity generation remained steady over the last 6 years, with hydropower being the main renewable energy source in 2016 (Fig. 14). The country's employment rate in electricity, gas, steam and air conditioning was only 0.2 per cent in 2013 (Fig. 12). With the push for increasing reliance on renewable energy, there is the potential for decent job opportunities in the future.

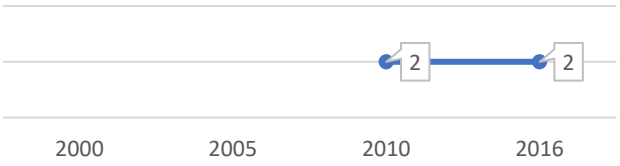
Figure 13. Renewable energy share in total energy consumption, 2000-15



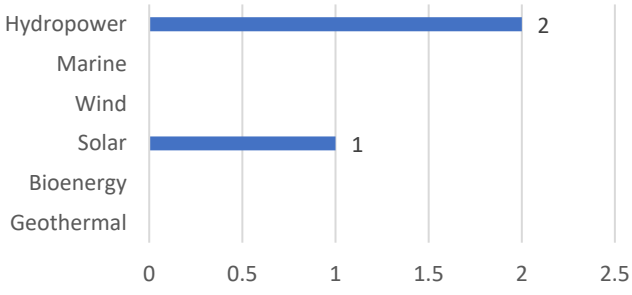
Source: ILO compilation using United Nations statistics division. SDG indicators: Global database. Available at: https://unstats.un.org/sdgs/indicators/database/ (accessed on 19 July 2018).

Figure 14. Renewable energy electricity generation, 2012-2016

Total renewable energy electricity generation (gigawatt hours - GWh)



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



Note: No data available before 2010 for Total renewable energy electricity generation (GWh).

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

[12] 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.

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.