Decent Work

International Labour Organization

VIET NAM

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

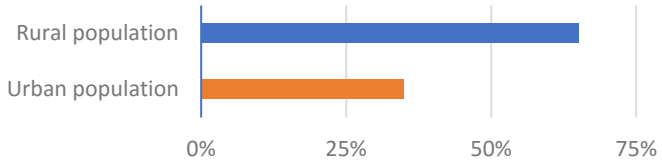
Viet Nam[1] is located in South-East Asia, bordering China to the north and Cambodia to the south-west (Fig. 1). Its population is mostly rural and growing, with a fertility rate of 2 children and life expectancy of 76.5 years. Around 70 per cent of the population is of legal working age (15–64 years) (Fig. 2).

Figure 1. Map of Viet Nam

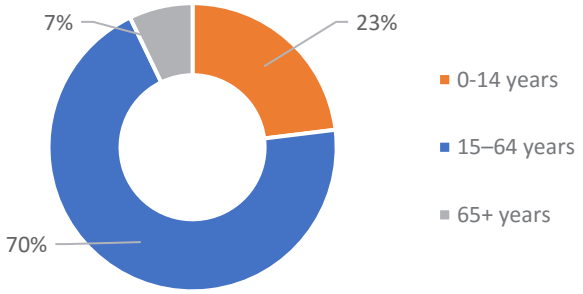
Figure 2. Viet Nam Population Statistics

Population:[2] 95.5 million

Population growth rate	Fertility rate	Life expectancy at birth
1.0%	**2.0 children**	**76.5 years**



Population age categories



Note: All data is from 2017.

Source: ILO compilation using World Development Indicators, last updated: 28 June 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).

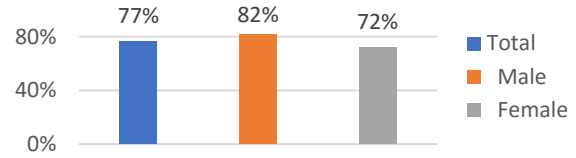
[1] Viet Nam became a member of the International Labour Organization in 1950-76, 1980-85, and since 1992.
[2] Population data based on 2017 data.

LABOUR FORCE

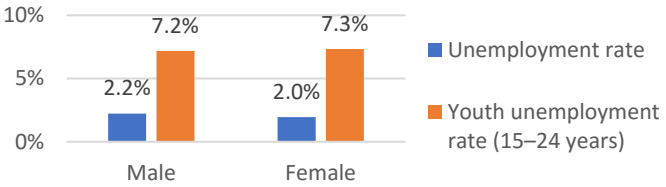
in 2018, the labour force participation rate was 78.2 per cent and the employment-to-population ratio was 76.5 per cent. Both these rates are more than 9 to 10percentage points higher for men than for women. The total unemployment rate was 2.1 per cent, and the youth unemployment rate was 7.3 per cent, with near gender parity in both rates. The proportion of youths aged 15-24 years not in education, employment or training was 0.6 per cent in 2016.[3] Employment is heavily reliant on agriculture and services, and on low-to medium-skilled occupations (Fig. 3).

Figure 3. Basic employment statistics for Viet Nam, 2018

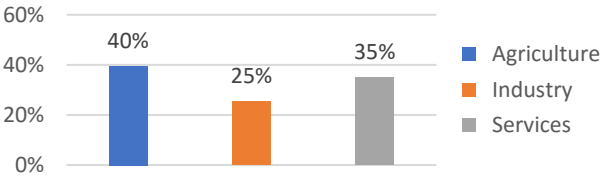
Employment-to-population, 2018 (15+ years)



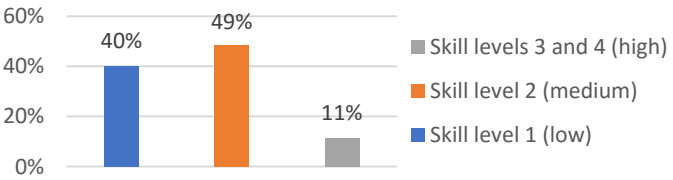
Unemployment, 2018



Employment by sector, 2018 (15+ years)



Employment by occupation, 2018

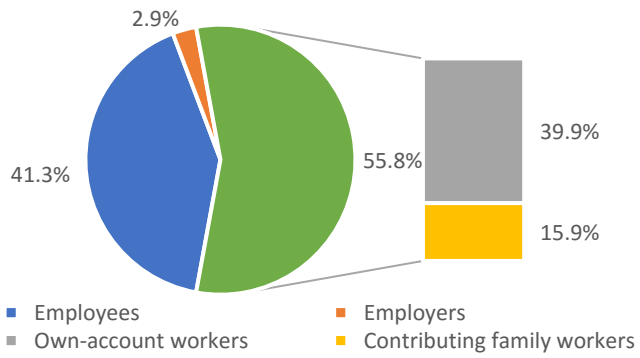


Note: ILO estimates. Labour force participation rate and unemployment: aged 15 years and older. Youth unemployment: aged 15–24 years. Employment by occupation: skill level 1 (low) for elementary occupations; skill level 2 (medium) for clerical, service and sales workers, skilled agricultural and trade 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 Viet Nam as of 2018 accounted for 55.8 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

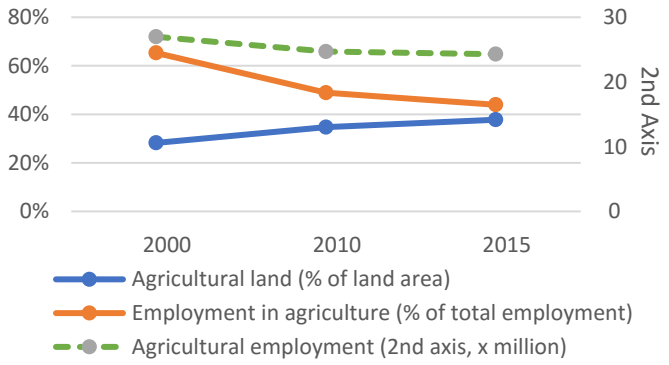


Note: ILO estimates. Vulnerable employment includes own-account workers and contributing family workers from ILO status of employment data.

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

Rural population growth was 0.04 per cent in 2017. The share of agricultural land in total land area increased by 9.5 percentage points between 2000 and 2015, while agricultural employment decreased from 26.9 million to 24.2 million people. The share of agricultural employment within total employment fell by approximately 21.3 percentage points due to much faster job creation in other sectors (Fig. 5).

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



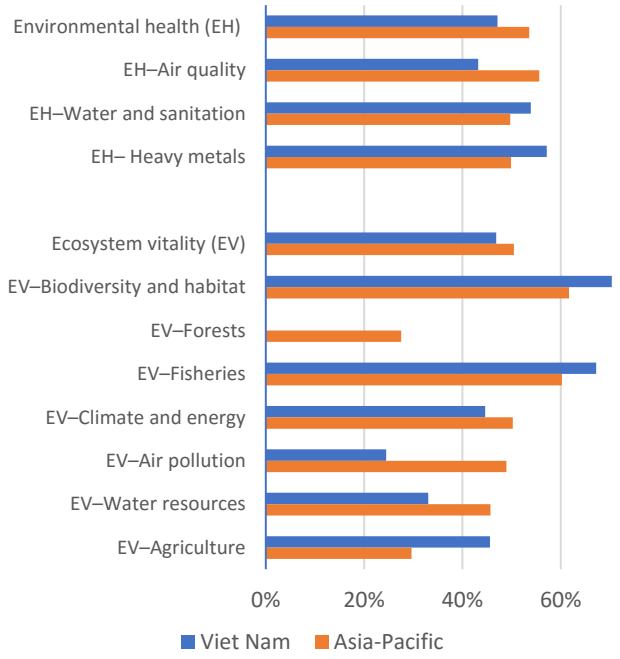
Source: ILO compilation using World Development Indicators, last updated: 28 June 2018; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 20 July 2018).

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

ENVIRONMENTAL ISSUES

Viet Nam ranks at number 132 of 180 countries in the Environmental Performance Index (EPI)[4], with a score of 46.96 (with 0 being furthest from the high-performance benchmark target of 100). Viet Nam outperforms the average score for Asia and the Pacific (Fig. 6) in some of the EPI categories, including water and sanitation, heavy metals, agriculture, and biodiversity and habitat. However, there is room for improvement, especially in environmental health (in air quality) and ecosystem vitality (in water resources, forests, air pollution and climate and energy). 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 Viet Nam.

Figure 6. Environmental Performance Index for Viet Nam, 2018

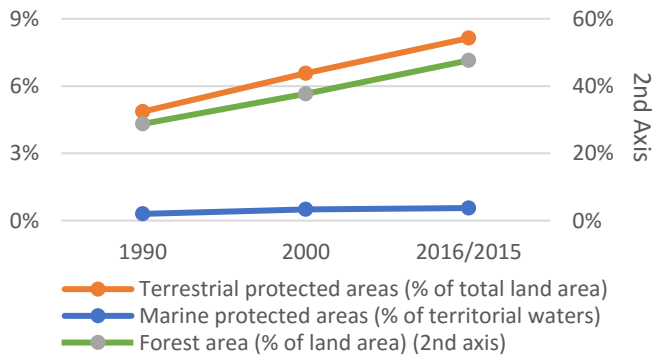


Note: Score 0 (worst) - 100 (best). Asia-Pacific data is for ILO member States in the region, excluding Cook Islands, Marshall Islands, Palau and Tuvalu.

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

Forest area increased between 1990 and 2015, to approximately 18.9 per cent of total land area. From 2000 to 2016, the share of terrestrial protected area increased slightly, reaching 7.6 per cent of total land area, while the proportion of marine protected area remained steady (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, 1990-2016

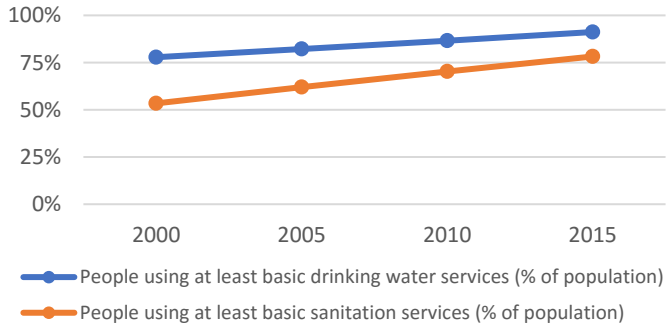


Note: Data for forest area is from 2015 and other data is from 2016.

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

Since 2000, there has been a gradual increase in access to basic drinking water, to an average of 91 per cent in 2015, and access to basic sanitation, to an average of 78 per cent in 2015 (Fig. 8). Both are still 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 2017 (Fig. 13). 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



Source: ILO compilation using World Development Indicators, last updated 21 May 2018; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 25 July 2018).

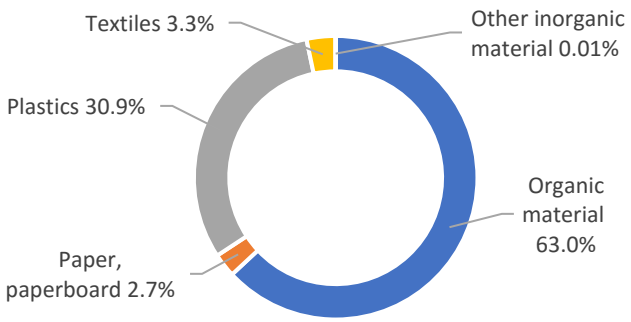
Growth of the urban population in Viet Nam has meant an increase in solid waste. Waste collection varies between inner cities and the country's outer urban areas. According to the World Bank, municipal solid

[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] 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.

waste generation in Viet Nam in 2004 was 1.46 kilograms per capita per day and is expected to increase to 1.8 kilograms per capita per day by 2025.[6] The majority of the waste in 2010 was organic (63 per cent), followed by plastics (31 per cent) (Fig. 9). Many households burn, dump or bury waste, which can impact the environment and public health, especially because many dumpsites are reaching their capacity.[7] 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, 2010



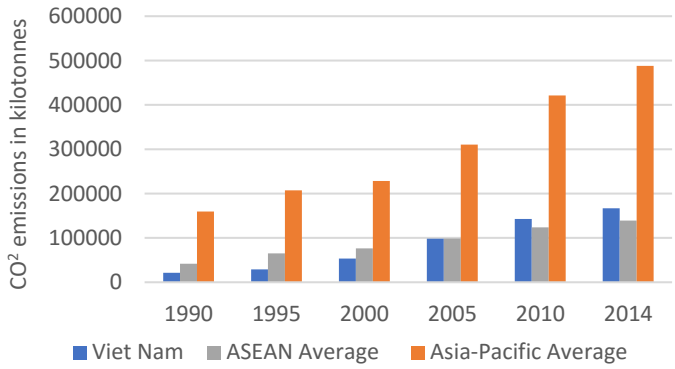
Source: ILO compilation using UNSD-Environment statistics (released on 30-Apr-2018; https://unstats.un.org/unsd/envstats/qindicators.cshtml) (accessed on 20 July 2018).

AIR QUALITY

The carbon dioxide (CO^2) emission levels for Viet Nam have increased gradually, by an average of 8.9 per cent from 1990 to 2014 (Fig. 10).8 The increase was due to two major sources: use of coal and gas for power generation; and oil for transportation.[9] The level of emissions is significantly lower than the Asia-Pacific average and slightly higher than the ASEAN average since 2005.

The $PM_{2.5}$ (atmospheric particulate matter with a diameter of less than 2.5 micrometres) emission levels for Viet Nam were steady except for a slight increase in 2005 (Fig. 11). Overall $PM_{2.5}$ emission levels exceeded the WHO Air Quality Guideline threshold level, thus indicating high emissions. Viet Nam also shows higher levels of emissions than the ASEAN and Asia-Pacific averages. Motor vehicles are the major source of $PM_{2.5}$ emissions in Viet Nam, followed by industrial coal and oil combustion, particularly from the brick industry that is known to burn biomass such as rice husks. Domestic emissions come from using coal for cooking and some heating.[10]

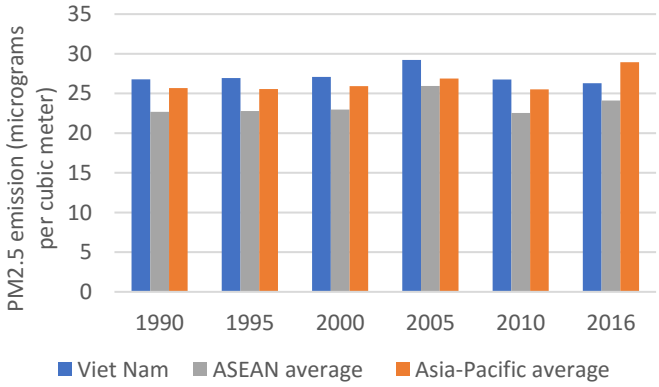
Figure 10. CO^2 emission for Viet Nam,1990-2014



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 11. $PM_{2.5}$ emission for Viet Nam, 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 the 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 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.

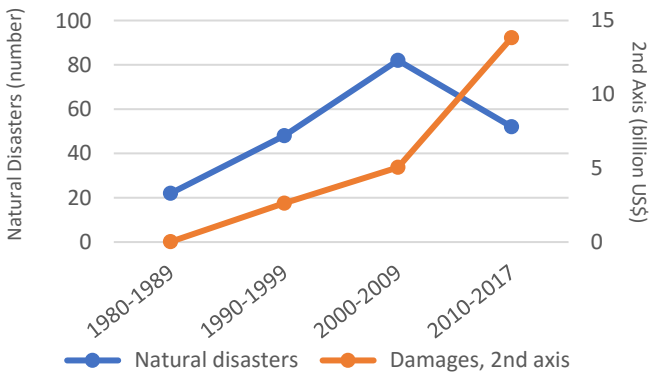
[6] World Bank: What a waste: A global review of solid waste management (Washington, DC, 2012).
[7] See http://waste2resource.org/viet-nam/.
[8] The value is calculated on the basis of CAGR (compound annual growth rate).
[9] Fossil Fuel Fiscal Policies and Greenhouse Gas Emissions in Viet Nam. Ha Noi, May 2012, UNDP; www.vn.undp.org/content/dam/vietnam/docs/Publications/28346_Tieng_Anh_FINAL.pdf
[10] An "Air Quality Management" Action Plan for Hanoi, Vietnam, Dr. Sarath Guttikunda December 2008 www.urbanemissions.info/wp-content/uploads/docs/SIM-14-2008.pdf

CLIMATE CHANGE IMPACTS

According to the World Risk Report[11], Viet Nam has a very high World Risk Index score. It ranks number 18 of 171 countries because of its high exposure to natural hazards and limited institutional capacity to cope and adapt. Part of the country's vulnerability relates to the 37 per cent of the total population who, in 2010, lived in the 15.4 per cent of the total land area below 5 metres above sea level.[12]

According to the Emergency Events Database[13], there was a substantial increase in natural disasters[14] and associated damage costs between the 1980s and the 2010s (Fig. 12). The natural disasters in that time were mostly tropical cyclones, storms, floods, landslides and droughts. Damage costs have increased significantly since the 1980s. 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 Viet Nam



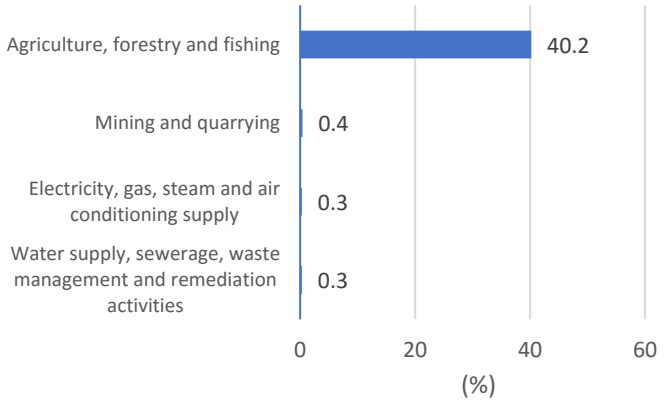
Note: Natural events include climatological, hydrological and meteorological disasters.

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 2017, 40.2 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

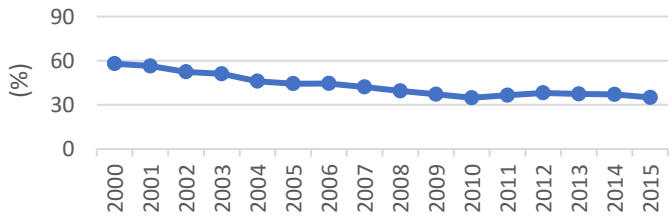


Note: These sectors have the most potential for green job opportunities. Employment by selected 1-digit sector level (ISIC - Rev. 4, 2008)

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

In 2014, 50.9 per cent of the population relied primarily on clean fuel and technology, in the sense that these do not create pollution within the home.[15] The share of renewable energy in total energy consumption has not kept pace with overall consumption. In 2000, it was 59 per cent but fell below 35 per cent in 2010 and, after some fluctuation, reached 35 per cent in 2015 (Fig. 14). However, renewable energy electricity generation increased over the last 16 years, with hydropower being the main renewable energy source in 2016 (Fig. 15). In 2017, almost 48 thousand people were employed in the renewable energy sector, with 93 per cent employed in hydropower (Fig. 16). The country's employment rate in electricity, gas, steam and air conditioning was only 0.3 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.

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

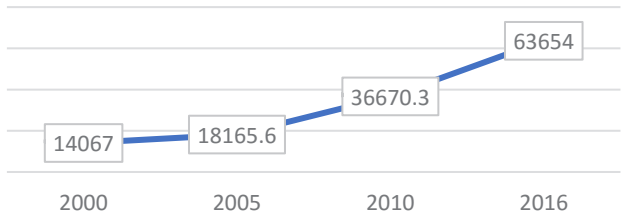


Source: ILO compilation using United Nations statistics division. SDG indicators: Global database. Available at: https://unstats.un.org/sdgs/indicators/database/ (accessed on 19 July 2018).

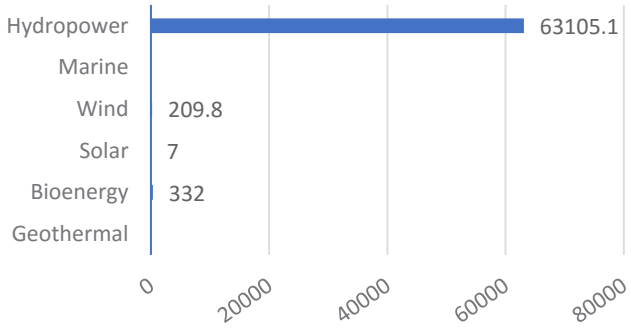
[11] Bündnis Entwicklung Hilft and United Nations University – EHS (2017) World Risk Report 2017, available at: http://weltrisikobericht.de/english/
[12] World Development Indicators. http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators# (accessed on 7 August 2018)
[13] 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.
[14] Climatological, hydrological and meteorological disasters.
[15] 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 15. Renewable energy electricity generation, 2012-2016

Total renewable energy electricity generation (gigawatt hours - GWh)

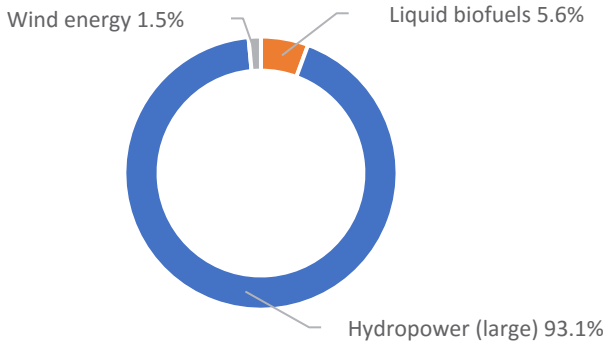


Renewable energy electricity generation (GWh) in 2016, by technology



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

Figure 16. Renewable energy employment, by energy source, 2017



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 source: IRENA (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. 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 assure a just transition to environmental sustainability and to monitor progress going forward.