

BANGLADESH

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

Bangladesh¹ is a small country in South Asia and shares a border with India and Myanmar (Fig. 1). Its population is mostly rural and growing, with a fertility rate of 2 children and life expectancy of 73.1 years. Around 67 per cent of the population is of legal working age (15–64 years) (Fig. 2).

Figure 1. Map of Bangladesh

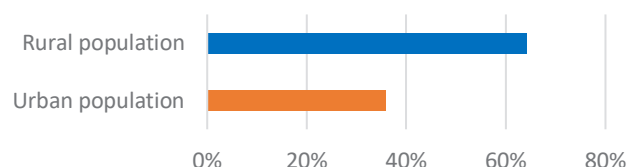


Figure 2. Bangladesh population statistics

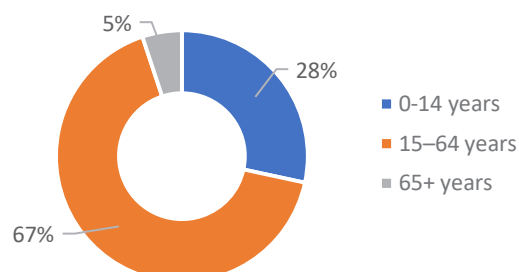
Population:² 164.7 million



Population growth rate	Fertility rate	Life expectancy at birth
1.05%	2.0 children	73.1 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 29 October 2018)

¹ Bangladesh became a member of the International Labour Organization in 1972.

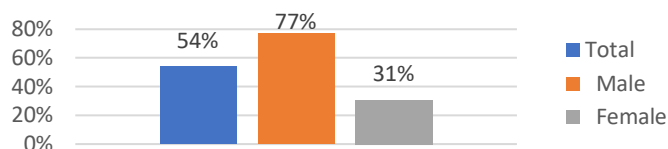
² Population data based on 2017 data.

LABOUR FORCE

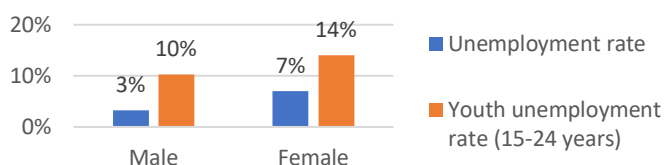
In 2018, the labour force participation rate was 56.6 per cent and the employment-to-population ratio was 54.1 per cent. Both these rates are more than 46 percentage points higher for men than for women. The total unemployment rate in 2018 was 4.37 per cent, and the youth unemployment rate was 11.36 per cent, both far from showing gender parity. The proportion of youths aged 15-24 years not in education, employment or training was 27.38 per cent in 2017.³ Employment is heavily reliant on services and agriculture, and on medium skilled occupations (Fig. 3).

Figure 3. Basic employment statistics for Bangladesh, 2018

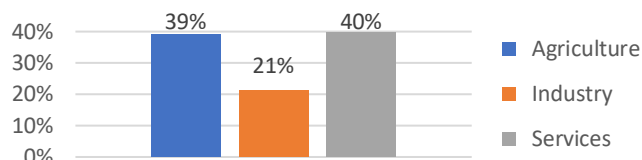
Employment-to-population, 2018 (15+ years)



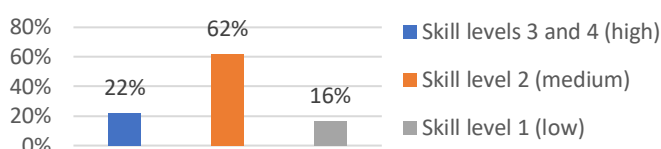
Unemployment, 2018



Employment by sector, 2018 (15+ years)



Employment by occupation, 2018

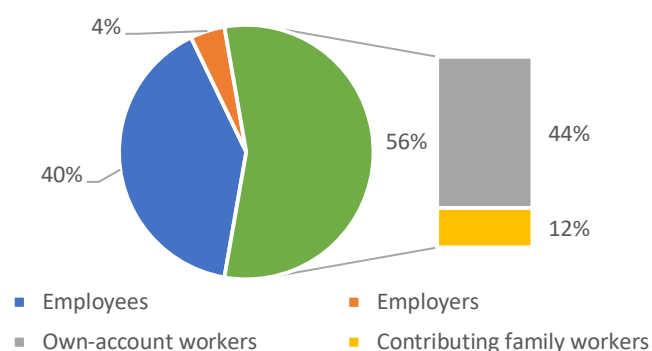


Note: ILO estimates. Labour force participation rate and unemployment: aged 15 years and older. Youth unemployment: aged 15–24 years. Employment by occupation: skill level 1 (low) for elementary occupations; skill level 2 (medium) for clerical, service and sales workers, skilled agricultural and trade 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 29 October 2018).

Vulnerable employment in Bangladesh as of 2018 accounted for 56 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

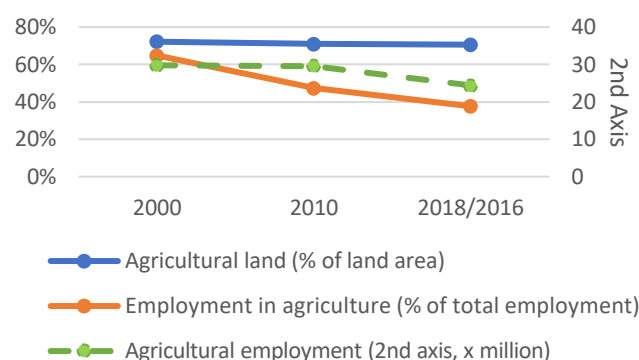


Note: ILO estimates. Vulnerable employment includes own-account workers and contributing family workers from ILO status of employment data.

Source: ILO estimates and compilation using ILOSTAT, www.ilo.org/ilostat (accessed 18 March 2019).

Rural population growth was negative 0.15 per cent in 2017. The share of agricultural land in total land area decreased by 1 percentage point between 2000 and 2016, together with agricultural employment, which decreased from 30 million to 24 million people. The share of agricultural employment within total employment fell by approximately 27 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.

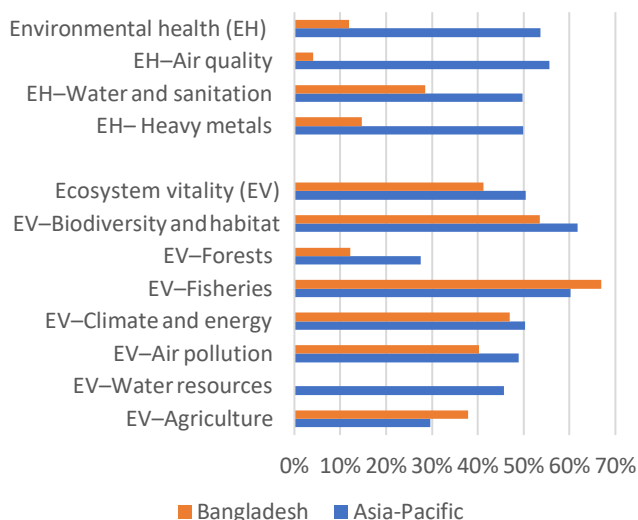
Source: ILO compilation using World development indicators, last updated: 28/06/2018; <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#> (accessed on 29 October 2018).

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

ENVIRONMENTAL ISSUES

Bangladesh ranks number 179 of 180 countries in the Environmental Performance Index (EPI)⁴, with a score of 29.56 (with 0 being furthest from the high-performance benchmark target of 100). Fisheries is the only category in which Bangladesh outperforms the average score for Asia and the Pacific (Fig. 6). There is significant room for improvement in most of the categories, especially in environmental health (air quality, heavy metal, water and sanitation) and in ecosystem vitality (water resources, agriculture, climate and energy, biodiversity and habitat). 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 Bangladesh.

Figure 6. Environmental Performance Index for Bangladesh, 2018

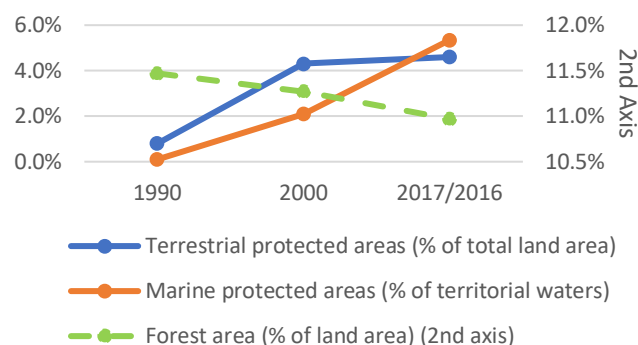


Note: Score 0 (worst) – 100 (best). Asia-Pacific: data is for ILO member states in the region, excluding Cook Islands, Marshall Islands, Palau and Tuvalu.

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

Forest area decreased between 1990 and 2016 to approximately 0.5 per cent of total land area. From 2000 to 2016, the share of terrestrial protected area increased slightly, reaching 4.6 per cent of total land area. The proportion of marine protected area also increased, reaching 5.4 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

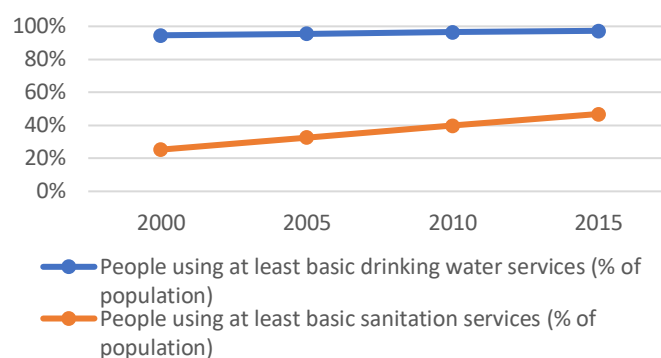


Note: data for forest area is from 2016 and other data is from 2017.

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 18 March 2019).

Since 2000, there has been a slight increase in access to basic drinking water, to an average of 97.3 per cent in 2015, and a gradual increase in access to basic sanitation, to an average of 46.9 per cent in 2015 (Fig. 8). Both are still below the ideal threshold of 100 per cent. Approximately 40.6 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 29 October 2018).

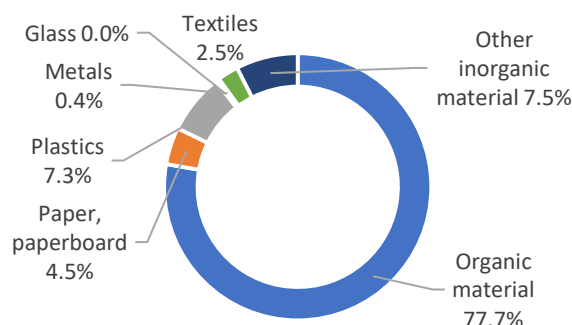
Growth of the urban population in Bangladesh has meant an increase in solid waste. Waste collection varies between the inner cities and the country's outer urban areas. According to the World Bank, municipal solid waste generation in Bangladesh in 2004 was 0.43

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>.

kilograms per capita per day and is expected to increase to 0.75 kilograms per capita per day by 2025.⁶ The majority of the waste in 2014 was organic (77.7 per cent), followed by inorganic material (7.5 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, 2014



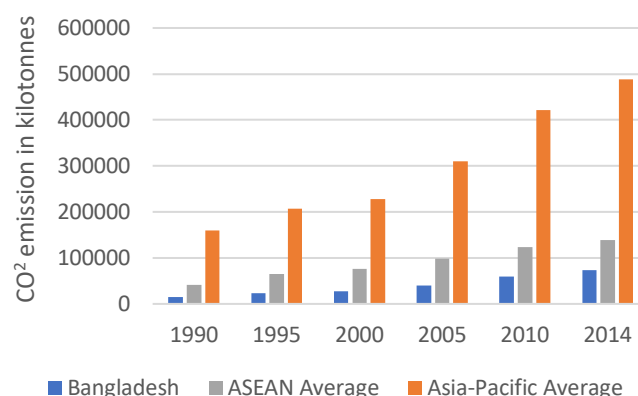
Source: ILO compilation using UNSD-Environment statistics (released on 30 April 2018; <https://unstats.un.org/unsd/envstats/qindicators.cshml>) (accessed on 29 October 2018)

AIR QUALITY

The carbon dioxide (CO₂) emission levels for Bangladesh have increased by an average of 7 per cent from 1990 to 2014 (Fig. 10).⁷ The increase was due to two major sources: electricity generation; and manufacturing.⁸ The level of emissions is significantly lower than the Asia-Pacific average and slightly lower than the ASEAN average.

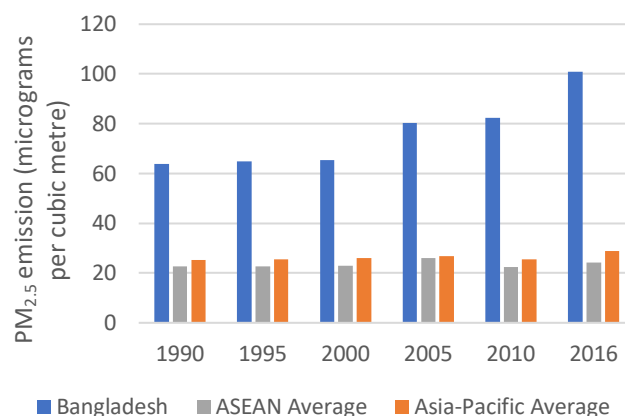
The PM_{2.5} (atmospheric particulate matter with a diameter of less than 2.5 micrometres) emission levels for Bangladesh have remained generally consistent, with only a slight increase since 2005 (Fig. 11). Overall PM_{2.5} emission levels exceeded the World Health Organization's Air Quality Guideline threshold level, thus indicating high emissions. Bangladesh also shows higher levels of emissions than the ASEAN and Asia-Pacific averages. Motor vehicles and brick kilns are the major source of PM_{2.5} emissions in Bangladesh.⁹

Figure 10. CO₂ emissions for Bangladesh, 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 29 October 2018).

Figure 11. PM_{2.5} emissions for Bangladesh, 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 29 October 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 World Bank: What a waste: A global review of solid waste management (Washington, DC, 2012).

⁷ The value is calculated on the basis of CAGR (compound annual growth rate).

⁸ Energy consumption and CO₂ emission in Bangladesh: Trends and policy implications; <https://journals.abc.us.org/index.php/apjee/article/download/741/614>

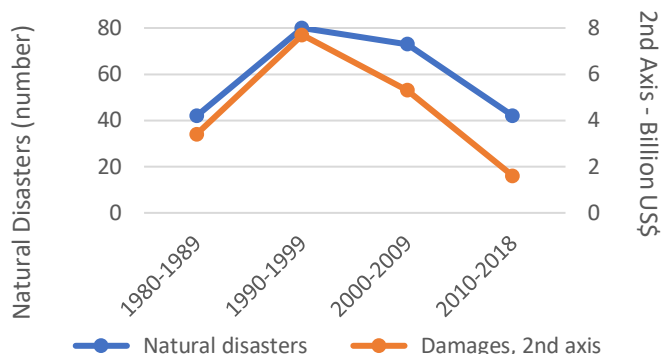
⁹ Identification of Sources of Fine and Coarse Particulate Matter in Dhaka, Bangladesh. Aerosol and Air Quality Research http://www.aqr.org/files/article/1202/5_AAQR-09-12-OA-0082_345-353.pdf

CLIMATE CHANGE IMPACTS

According to the *World Risk Report*,¹⁰ Bangladesh has a very high World Risk Index score. It ranks number 5 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 8.9 per cent of the total population who, in 2010, lived in the 9.6 per cent of the total land area that is less than 5 metres above sea level.¹¹

According to the *Emergency Events Database*,¹² there was a substantial increase then decrease in natural disasters¹³ and associated damage costs between the 1980s and 2018 (Fig. 12). The natural disasters in that time were mostly cyclones, storms, floods, landslides, droughts and river/coastal erosion. Damage costs increased significantly between 1990 and 1999. 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 Bangladesh



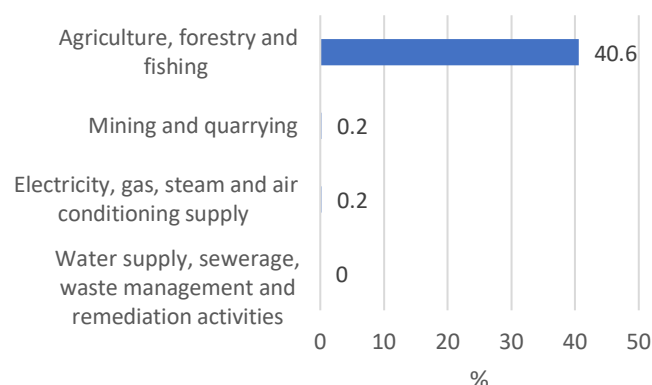
Note: Natural events include climatological, hydrological and meteorological disasters.

Source: EM-DAT: The emergency events database - Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium. Data accessed on: 29 October 2018.

GREEN JOBS POTENTIAL

In 2017, 40.6 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 29 October 2018).

In 2016, 18 per cent of the population relied primarily on clean fuel and technology, in the sense that these do not create pollution within the home.¹⁴ 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 to 41 per cent in 2010 and, after some fluctuation, reached 34.8 per cent in 2015 (Fig. 14). However, renewable energy electricity generation has increased over the last 16 years, with hydropower as the main source in 2016 (Fig. 15).

In 2018, almost 158 thousand people were employed in the renewable energy sector, with 84.1 per cent employed in solar photovoltaics (Fig. 16). The country's employment rate in electricity, gas, steam and air conditioning was only 0.2 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.

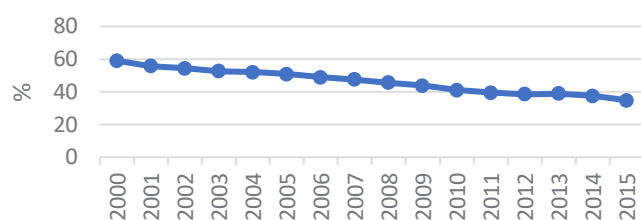
¹⁰ Bündnis Entwicklung Hilft and United Nations University – EHS (2017) World Risk Report 2017, available at: <http://weltrisikobericht.de/english/>

¹¹ World development indicators. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#> (accessed on 7 August 2018).

¹² EM-DAT: The emergency events database - Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium. Data accessed on: 20 July 2018.

¹³ Climatological, hydrological and meteorological disasters.

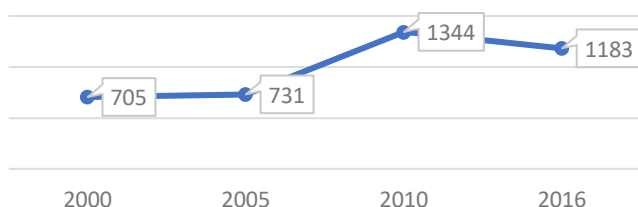
¹⁴ The proportion of the population with primary reliance on clean fuels and technology is calculated as the number of people using clean fuels and technologies for cooking, heating and lighting divided by the total population reporting any cooking, heating or lighting, expressed as a percentage. "Clean" 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

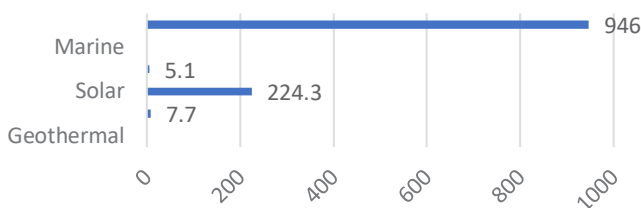
Source: ILO compilation using United Nations statistics division. SDG indicators: Global database. Available at: <https://unstats.un.org/sdgs/indicators/database/> (accessed on 29 October 2018).

Figure 15. Renewable energy electricity generation, 2000-2016

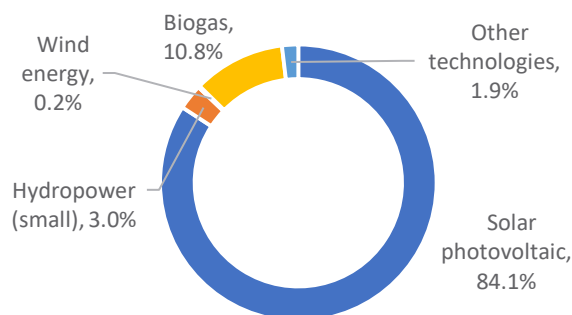
Total renewable energy electricity generation (gigawatt hours - GWh)



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>.

Figure 16. Renewable energy employment, renewable energy employment, by energy source, 2018

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. 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.



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