

## ***Renewables 2023 Global Status Report collection***

### **Economic & Social Value Creation**

### **Employment Factsheet**

#### **Key Headlines**

- In 2021, employment in renewables reached a record high of 12.7 million, with an additional 700,000 jobs created during the year.
- Women accounted for one-third (32%) of the renewable energy workforce in 2021. The share of female employees in the solar industry is above average at 40%.
- The renewable energy workforce needs to grow from around 12.7 million in 2021 to 38 million in 2030 under the International Energy Agency's scenario.

#### **Key Drivers**

- Deployment of renewable energy contributes to growth in gross domestic product and creates **employment opportunities**.
- Many governments are addressing the need to **increase and diversify the renewable energy workforce**, such as by offering programmes to train women, Indigenous Peoples and other marginalised groups.
- Renewables can play a key role in reducing **gender inequality**, for instance by creating jobs and entrepreneurial opportunities for women.
- Governments are recognising the need for a skilled renewable energy workforce and are funding **educational and reskilling programmes** for workers in the fossil fuel industry whose jobs are gradually being lost.

#### **Market Developments and Policy**

##### Market Developments

- In 2021, renewable energy employment increased to reach a record high of 12.7 million jobs (including 4.3 million in solar photovoltaics (PV) and 3.4 million in bioenergy).
- **Asia** accounted for around two-thirds of all renewable energy jobs in 2021, while the **Americas** represented 21% and **Europe** 12%.
- **China** was the largest renewable energy employer worldwide with 5.36 million jobs (42% of the global total).
- Most of the jobs in the solar PV industry, around 3.39 million or 79%, were in **Asia**. **China** alone employed around 2.7 million people, representing 63% of the solar PV jobs in 2021.
- For bioenergy, the **Americas** accounted for 43% of the global workforce.
- For wind energy, **Asia** had most of the wind energy employment, at almost 60% (China alone accounted for 47% of the total), followed by Europe at 25%, the Americas at 16%, and Africa and Oceania at 2%.

##### Policy

#### **Increasing and diversifying the renewable energy workforce**

- **United States** – The Inflation Reduction Act of 2022 is expected to create nearly 5 million clean energy jobs.

- **Canada** – The clean energy sector is projected to grow nearly 50% by 2030, to around 640,000 jobs.
- **European Union** – The REPowerEU plan is expected to require an estimated 3.5 million new jobs by 2030.
- **India** – More than 3.4 million jobs in the wind and on-grid solar energy sectors are projected to be created by 2030.
- **ASEAN** – An estimated 1.3 million jobs in renewables are expected by 2025, more than half from solar energy.
- **South Africa** – An estimated 462,000 new green jobs are expected to be created by 2025.
- **Morocco** – The energy efficiency strategy is expected to create around 520,000 jobs by 2030.

#### **Reducing gender inequality**

- **Kenya** was the first country to enact a National Gender and Energy Policy, in 2019.
- **Australia** adopted the Growing Our Clean Energy Workforce package aimed at fostering women’s employment in renewable energy jobs.
- In **Chile**, the government initiated Energia+Mujer programme is targeted at increasing women’s participation in renewables.

#### **Educational and reskilling programmes**

- **United States** – The state of Colorado provided USD 15 million to support coal-dependent workers and communities (USD 7 million to directly fund worker training programmes).
- **Scotland** – The Transition Training Fund was created to retrain oil and gas workers for the renewable energy sector.
- **Czech Republic** – The RE:START programme committed USD 3.15 billion to coal regions through 2020 to spur economic development and mitigate the impact of dwindling coal jobs.
- **China** – The 13th Five-Year Plan (2016-2020) has a special USD 15 billion industrial fund to support displaced coal workers, including their resettlement and retraining.
- **Australia** – The country announced plans to establish a Net Zero Authority to support coal-dependent communities, providing additional funding through the creation of an AUD 400 million (USD 272 million) Industrial Transformation Stream that includes skills development.