



# Renewable Energy and Jobs

**For Prelims:** IRENA, ILO, Renewable Energy, Solar Energy, Decentralized Renewable Energy

**For Mains:** Renewable Energy and Jobs-Annual Review 2022

## Why in News?

Recently, the [International Renewable Energy Agency \(IRENA\)](#) and the [International Labour Organization \(ILO\)](#) released a report titled “**Renewable Energy and Jobs-Annual Review 2022**”, which says that around 700,000 new jobs were created in the [Renewable Energy Sector](#) in just one year.

- The report identified **domestic market size, along with labor**, as a major factor influencing job growth in the sector.

## What are the Findings?

### ▪ Overview:

- The Renewable Energy sector employed **12.7 million people across the world in 2021**, up from 12 million in 2020.
- Close to **two-thirds of all such jobs are in Asia**, with China alone **accounting for 42 % of the global total**. It is followed by the European Union and Brazil with 10 % each and the United States and India with 7 % each.
- Developed economies received the largest share of investment in the renewable energy field. These countries are on their way to **achieving a 60 % growth in the clean energy sector by 2022**.

### ▪ Regional Trends:

- **Southeast Asian** countries are **becoming major Solar Photovoltaic (PV) manufacturing hubs** and biofuel producers, while China is the pre-eminent manufacturer and installer of solar PV panels and is creating a growing number of jobs in offshore wind.
- **India** added more than **10 Gigawatts of solar PV**, generating many installation jobs, but remains heavily dependent on imported panels.
- **Europe** accounts for about 40 % of the **world's wind manufacturing output and is the most important exporter** of wind power equipment; it is trying to reconstitute its solar PV manufacturing industry.
- In Africa there are growing **job opportunities in decentralized renewables**, while in the Americas, Mexico is the leading supplier of wind turbine blades.
- **Brazil remains the leading employer in biofuels** but is also adding many jobs in wind and solar PV installations.
- **The US** is beginning to build a domestic industrial base for the budding offshore wind sector.

### ▪ Solar Energy:

- Solar energy remained the **fastest-growing sector**.
- In 2021 it provided **4.3 million jobs** — more than a third of the total renewable energy

workforce.

- In 2021, a record 132.8 gigawatts of solar PV capacity were installed globally, up from 125.6 GW in 2020.
- China accounted for **53 GW (40 %) of this addition**. It was followed by the US, India and Brazil, all of which set new annual records.
- **Decentralized Renewable Energy:**
  - The number of people directly employed in **Decentralised Renewable Energy (DRE)** in 2021 was more than 80,000 in India (mostly in solar PV), 50,000 each in Kenya and Nigeria, almost 30,000 in Uganda.
    - DRE is a system that uses **renewable energy to generate, store and distribute power in a localised way**.
  - The share of women in the **DRE** workforce is still low, particularly for skilled jobs, the researchers observed.
    - Overall, the share of women in DRE was 41 % in Kenya, 37 % in Ethiopia and Nigeria, 28 % in Uganda and 21 % in India.

## What are the Recommendations?

- An energy transition that can be considered just needs not only to create decent jobs but **also to offer social protection for affected workers**, communities and regions during the transition.
- A successful and just energy transition requires strong public policy interventions and capable institutions for policy implementation.
- Pursuing **industrial policies that encourage the expansion of decent renewables jobs** at home.
- Not only the ultimate outcome of the energy transition but also the process of a decades-long transformation of all economies must be just.
- The expansion of renewable energy needs to be **supported with holistic policy packages**, including training for workers to ensure jobs are decent, high quality, well paid and diverse in pursuit of a just transition.

## What is the International Renewable Energy Agency (IRENA)?

- It is an intergovernmental organisation, it was officially founded in Bonn, Germany, in January 2009.
- It has 168 members and India is the 77th Founding Member of IRENA.
- It has its headquarters in Abu Dhabi, United Arab Emirates.

## What is the International Labor Organization?

- It is the only tripartite [United Nation \(UN\) agency](#). It brings together governments, employers and workers of 187 member States (India is a member), to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
  - Received the [Nobel Peace Prize in 1969](#).
- Established in 1919 by the [Treaty of Versailles](#) as an affiliated agency of the [League of Nations](#).
- Became the first affiliated specialized agency of the UN in 1946.
- Headquarters: Geneva, Switzerland.

## UPSC Civil Services Examination, Previous Year Question (PYQ)

**Q.** Give an account of the current status and the targets to be achieved pertaining to renewable energy sources in the country. Discuss in brief the importance of National Programme on Light Emitting Diodes (LEDs). (2016)

[Source: DTE](#)

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