Renewable 2022 Global status report

June 18, 2022

<u>In news</u>— 17th edition of Renewable 2022 Global status report has been released by REN21 recently.

Key highlights of the report-

- The report is the world's only crowd-sourced report on renewable energy.
- It covers policies, markets, and much more, while telling the most up-to-date global story on renewable energy.
- It has said that despite supply chain disruptions, shipping delays, and surging prices for wind and solar energy components, renewable power capacity additions grew 17 per cent in 2021 to reach a new high of more than 314 GW of added capacity, driven by the record expansion in solar PV and wind power.
- China added around 136 GW during the year, accounting for around 43 per cent of the total global additions and in the process became the first country to exceed 1 terawatt (TW) of installed renewable energy capacity.
- The market also diversified geographically, with the top five countries accounting for 71 per cent of all capacity added.
- Countries outside of China added around 179 GW of new capacity, up 29 per cent from 2020 levels and the top countries include the United States (42.9 GW), India (15.4 GW), Brazil (10.2 GW), Germany (7.3 GW) and Japan (7.2 GW).
- Renewables generated 28.3 per cent of global electricity in 2021, roughly on par with 2020 levels (28.5 per cent) and up from 20.4 per cent in 2011.

- Hydropower still comprised most of this, although generation from wind and solar power has risen dramatically in recent decades.
- In 2021, for the first time, variable renewables (wind and solar) met more than 10 per cent of global electricity production.
- The growth in renewable energy penetration was mitigated by the overall rise in electricity demand and by drought conditions that greatly reduced global hydropower generation.
- Despite the progress of renewables in the power sector, the surge in global energy demand was met mostly with fossil fuels.
- China is the global leader in cumulative renewable energy capacity at the end of 2021, followed by the United States (398 GW), Brazil (160 GW), India (158 GW) and Germany (139 GW).
- At least 40 countries had more than 10 GW of renewable power capacity in operation by the end of 2021, up from 24 countries in 2011.
- Worldwide, the total installed renewable power capacity grew 11 per cent to reach around 3,146 GW, which is far from the deployment needed to keep the world on track to reach net zero emissions by 2050.
- To reach the average milestones set by the IEA's Net Zero scenario by 2050 and by the World Energy Transitions Outlook scenarios from the International Renewable Energy Agency (IREA), the world would need to add 825 GW of renewables each year until 2050.
- The share of renewables in a country's TFEC varies depending on the energy mix.
- According to the report, only 3 countries out of 80 Iceland, Norway and Sweden had renewable shares above 50 per cent in 2019, and 20 countries, mostly in Europe and Latin America, met at least a quarter of their total final energy consumption with renewables.
- As of the end of 2021, six countries relied on 100 per

- cent renewable electricity: Costa Rica, Denmark, Norway,
 Iceland, Paraguay (hydropower) and Uruguay.
- At the sub-regional level, these were joined by four provinces/ states: South Australia (Australia), Hawaii (US), Quebec (Canada) and Qinghai (China).
- Islands using 100 per cent renewable-based power included Ta'u (American Samoa), Eigg (Scotland), El Hierro (Spain), Graciosa (Portugal) and King Island (Australia).

India's renewable energy status-

- In the Nationally Determined Contributions (NDCs) as per the Paris Accord on Climate Change in December, 2015, India had made a pledge that by 2030, 40 per cent of her installed power generation capacity shall be from nonfossil energy sources.
- To achieve this goal, it was decided during the year 2015 that 175 GW of RE capacity will be installed by the year 2022 that includes 100 GW from solar, 60 GW from wind, 10 GW from biomass and the remaining 5 GW from small hydro power.
- Further, as a contribution of India to climate action, the Prime Minister presented Panchamrit at CoP-26 at Glasgow in November, 2021 which included increasing its non-fossil energy capacity to 500 GW by 2030 and meeting 50 per cent of its energy requirements from renewable energy by 2030.
- The latest global status report on renewable energy clearly shows that the Government of India's efforts of aggressively pushing renewable energy into the grid are continuously bearing fruit.
- An addition of 15 GW during a pandemic year is an important milestone.
- India added around 15.4 gigawatts (GW) of renewable power capacity in 2021, the third highest after China (136 GW) and the United States (43 GW).

REN21-

- It is the only global renewable energy community of actors from science, governments, NGOs and industry. It provides up-to-date and peer-reviewed facts, figures and analysis of global developments in technology, policies and markets.
- Its goal: enable decision-makers to make the shift to renewable energy happen now.
- REN21 was created in 2004 as an outcome of the Bonn2004 International Conference on Renewable Energy.
- This "coalition of the willing" came together with one objective in mind: to support and accelerate the development of renewable energy.
- From the outset, REN21's mandate has been to collect, consolidate and synthesise a vast body of renewable energy data to provide clear and reliable information on what is happening in real-time.