

Renewable Energy at a Crossroad: Can COP Targets Spur an Equitable and Just Transition?

Solomon N. Nakouwo | Research Institute of Economics and Management, Southwestern University of Finance and Economics, Chengdu, China.

The participants of the COP28 Global Renewables and Energy Efficiency Pledge, in the United Arab Emirates (UAE), committed to triple global installed renewable energy capacity to at least 11,000 gigawatts and to double energy efficiency improvements by 2030. This historic collective effort is a means to advance global energy transition, attain a net zero carbon emissions, and meet the goal of the Paris Agreement to keep warming well below 2°C while pursuing efforts to limit warming to 1.5°C. This COP28 declaration calls for sufficient and continues investments in the renewable energy sector. As such, the Global Renewables Summit held in September 2024 in New York brought together industry experts, government, intergovernmental organizations, nongovernmental organizations (NGOs), and philanthropy to discuss the progress, opportunities, and challenges of tripling renewable energy globally by 2030.

The COP28 tripling pledge is widely appreciated across the world as a bold step and a game changer, which is referred to as the “Beginning of the End” of the Fossil Fuel Era. However, some energy experts have raised concerns about the feasibility of this target. For instance, the analysis by International Energy Agency (IEA) revealed that the explicitly declared renewable capacity targets in the previous Nationally Determined Contributions (NDCs) and the existing national policies and plans significantly fall short in meeting the tripling goal by 2030. The renewable energy capacity currently recorded in the NDCs totals 1,300 gigawatts, representing about only 12% of the COP28 pledge. The global total cumulative renewable capacity estimates from countries’ policies and plans stands at 7,903 gigawatts, which is almost 30% lower than COP28 tripling target of 11,000 gigawatts (See figure 1). To close this capacity gap, countries all over the world need to scale up their efforts by setting more ambitious but achievable new targets in the next updates of the NDCs. Countries also have to explicitly state their ambitions in measurable terms with quantitative targets to enable proper monitoring and assessment.

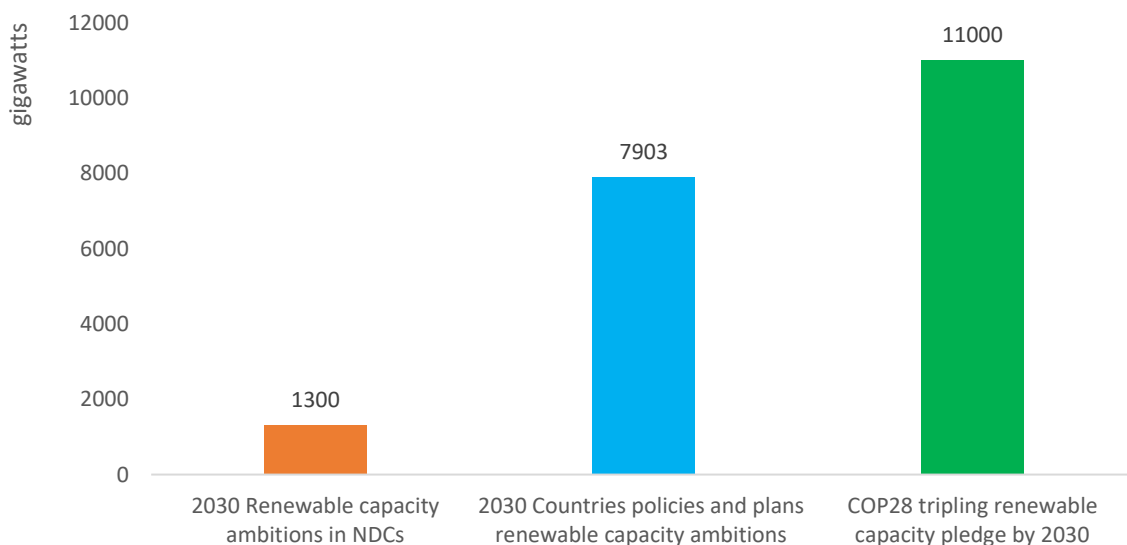


Figure 1: Global renewable energy capacity ambitions and the COP28 tripling pledge, source: IEA (2023)

The mobilization of adequate investment to boost the renewable energy sector also continues to be a major source of risk. Especially, the emerging markets and developing economies (EMDEs), excluding China, are likely to be more structurally exposed to social-economic shocks from their exit from fossil fuels. In addition, the current unequal distribution of renewable energy investments across the regions has raised a lot of concerns. Besides the financial and technological development needs, achieving the 2030 tripling pledge requires further development of storage, transmission infrastructure and markets as well as system integration on a global level.

Some renewable energy technologies are also less deployed. The significant record growth of the renewable energy sector witnessed in 2022 and 2023 was largely driven by solar and wind technologies, with minimal increase in the other renewable technologies including hydropower (excluding pumped storage), bioenergy, and geothermal energy (See figure 2). In 2023, the global installed capacities of solar and wind technologies increased by about 32% and 13% from 2022, respectively, while each of the other technologies increase less than 4%. Also, about 98% percent of the world adding record of 473 gigawatts of renewable power capacity in 2023 was generated from solar and wind technologies, accounting for about 462 gigawatts, with 81% of such renewable power additions cheaper than fossil fuels.

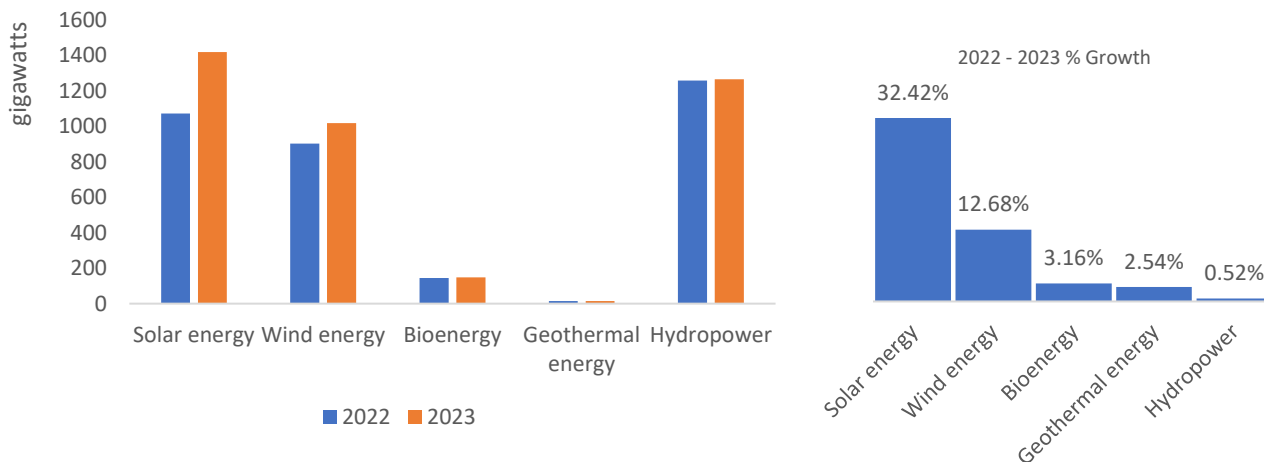


Figure 2: Global renewable energy installed capacity by renewable technologies, source: IRENA (2024)

However, the trend of renewable energy sector growth has been far from equitable distribution with great discrepancies among countries and regions around the world. The present installed renewable power capacity is dominated by advanced economies and China. While China continues to lead in terms of solar PV capacity additions in 2022 and 2023, the EMDEs in other parts of Asia, Africa, and Oceania are lacking behind. Asia (driven by China) accounted for over 50% of the global renewable energy installed capacity in 2022 and 2023, while Africa and Oceania contributed less than 2% each, with America and Europe almost at par, each contributing around 22% in each of the two years under review (See figure 3).

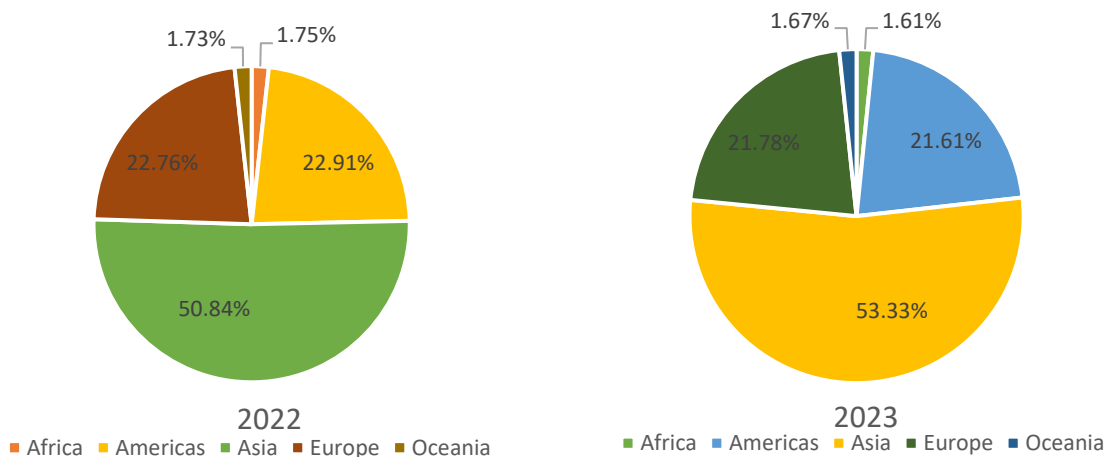


Figure 3: Share of global renewable energy installed capacity in 2022 and 2023 by regions, source: IRENA (2024)

Aside the disparities in the global renewable energy installed capacity across the regions, the global clean energy investment flow imbalances, particularly insufficient clean energy investments in EMDEs (excluding China) are causes of concern among experts . This unbalanced distribution of renewable energy investment shows structural challenges and exclusion of finance as the pull factors limiting developing nations from engaging in the energy transition fairly. These inequalities risk achieving the tripling goal itself, let alone the kind of equitable investing for development required by developing countries. To make headway, governments of EMDEs must address key financing barriers, including improving access to finance, reducing supply chain bottlenecks, streamlining permitting, and expanding grid infrastructure. Unlocking climate finance, addressing critical issues such as adaptation, and equitably deploying renewable energy solutions should be tackled with urgency.

This renewable energy transition crossroad requires urgent and decisive actions including prioritizing renewable energy ambitions by all countries, robust international dialogues and cooperations, greater equitable clean energy investments across regions, and stronger public-private partnerships in the energy sector. Also, multilateral development banks need to increase the size of its concessional green lending for distributed renewable power initiatives designed in line with socio-economic end-use environment. Partnership in terms of sharing capacity is important for context-based development across the developing world.

As we approach the 29th Conference of the Parties (COP 29, Azerbaijan) in November 2024, the equitable and inclusive transition to renewable power will likely a topical issue for discussion and the key to translating ambitions into policies and actions.

15/10/2024

References

COP28 UAE (December, 2023). Global Renewables and Energy Efficiency Pledge. Available at:

<https://www.cop28.com/en/global-renewables-and-energy-efficiency-pledge>

Global Renewables Alliance (September, 2024) Global Renewables Summit 2024. Available at:

<https://globalrenewablesalliance.org/grs24/#:~:text=New%20York%2C%2023%20%26%2024%20September,ewable%20energy%20globally%20by%202030>

IEA (2024). COP28 Tripling Renewable Capacity Pledge: Tracking countries' ambitions and identifying policies to bridge the gap. Available at: <https://www.iea.org/reports/cop28-tripling-renewable-capacity-pledge>

The International Renewable Energy Agency (IRENA) (2024). Renewable energy statistics 2024, International Renewable Energy Agency, Abu Dhabi. <https://www.irena.org/Publications/2024/Jul/Renewable-energy-statistics-2024>

IEA (2024). World Energy Investment 2024. <https://www.iea.org/reports/world-energy-investment-2024/overview-and-key-findings>