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Renewable Energy Development in Africa

Trends, Outlook, Opportunities and Projections

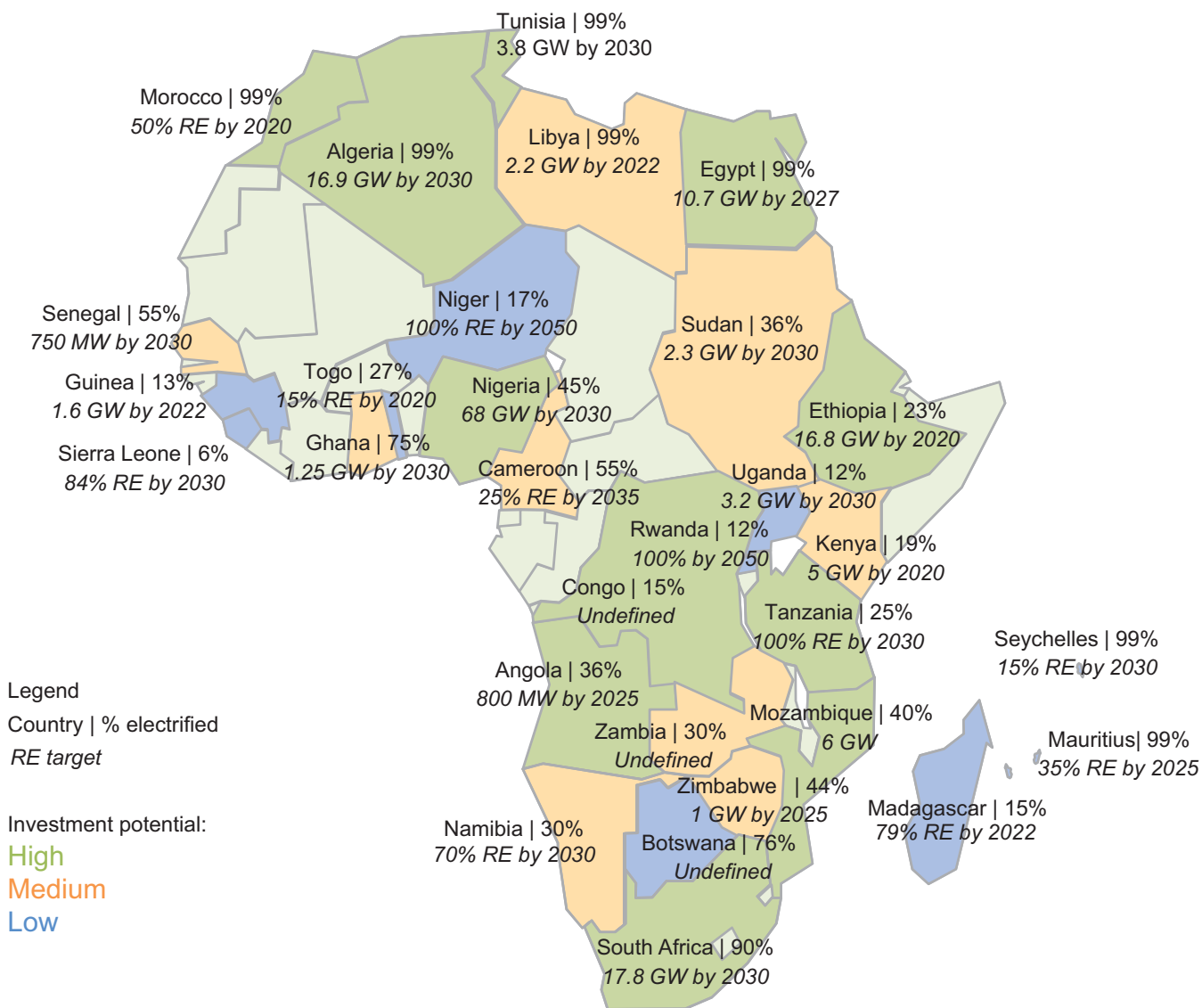


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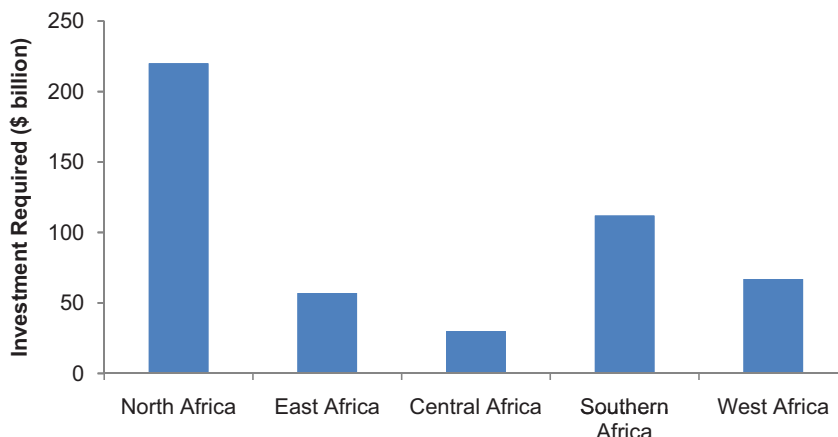
Current rate of electrification and future targets for renewable energy in Africa



Africa's electrification rates are among the lowest in developing countries. At least 34 African countries, predominantly in the sub-Saharan region, report electrification rates less than 50%. A number of them still have single digit electrification rates. Poor electricity infrastructure and supply shortages are a common phenomenon in the region which takes a toll on its economic development.

Renewable energy is set to play a greater role in the African energy basket. The continent's renewable energy capacity is expected to grow by 5 times against the current levels on the back of country-wise targets as adopted at the CoP 21 in Paris. The installed capacity is likely to increase up to 128 GW by 2030.

Investment Required for Renewable Energy Development in Africa by 2030



The African continent has witnessed continued growth in the renewable energy sector owing to various factors:

- ❖ Recent globalisation – the continent has opened up to the global market only in the past decade, accelerating the pace of regional growth
- ❖ Significant renewable energy potential – all countries in the continent have a rich base of at least one renewable energy source, be it solar, wind, hydro, geothermal or biomass
- ❖ Increase in investments – international companies, mainly Chinese and American, are investing heavily in Africa to exploit the new markets and establish themselves as primary drivers of the market
- ❖ Chinese influence – China’s large presence in Africa and its status as a renewable energy giant has helped the latter develop a considerable base for growth in the renewable energy sector
- ❖ Global push for renewable energy – the pressure exerted by climate change champions on Africa, despite its ongoing industrial transformation has helped countries realise their potential and propelled growth in the sector

With considerable solar and hydropower resources, complemented by bioenergy, wind, geothermal and marine resources in some regions, Africa

has the opportunity to leapfrog to modern renewable energy. Renewable energy technologies are now the most economical solution for off-grid and minigrd electrification in remote areas, as well as for grid extension in some cases of centralised grid supply with good renewable resources. Besides, local bioenergy, geothermal, solar thermal resources have an important role to play in covering future heat demand.

Given the right investments and proper deployment of upcoming capacity along with policy and regulatory support, Africa could potentially generate about 30% of its total power through renewables, except hydropower, and 49%, including hydropower, by 2030.

On account of increase in capacity and number of projects, investments in the renewable energy sector in Africa are on the rise. While countries in North Africa are likely to witness highest investments in the renewable energy sector by 2030, clean energy investments in other regions, especially southern and western are also likely to gain traction in the coming years.

Renewable Energy Capacity Growth Trajectory by 2030

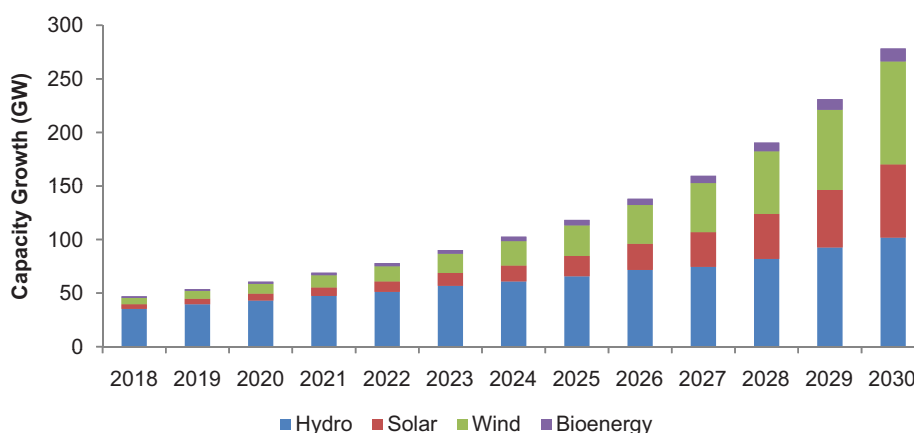


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This section has 30 chapters pertaining to the renewable energy scenario and outlook for 30 African countries. These include Algeria, Angola, Botswana, Cameroon, Democratic Republic of the Congo, Egypt, Ethiopia, Ghana, Guinea, Kenya, Libya, Madagascar, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

Each country profile provides information on:

- ❖ Economic Scenario and Demography
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