

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

## **Renewables in Energy Supply**

### **Africa Factsheet**

#### **Key Headlines in 2022**

- Access to electricity is a significant challenge in many parts of Africa. Political leaders prioritise renewable energy developments to improve energy access and electrification rates, particularly in remote and underserved areas. Renewable energy sources offer decentralized and off-grid solutions to bridge the energy gap.
- Renewable energy developments align with Africa's broader sustainable development goals. Political leaders see the energy transition as an opportunity to stimulate economic growth, create jobs, and foster local industries. Renewable energy projects can contribute to poverty reduction and socioeconomic development.
- Africa is experiencing significant growth in renewable energy installations. Solar photovoltaic (PV) projects, wind farms, and small-scale hydropower installations are becoming more common. Off-grid solar solutions, such as solar home systems and mini-grids, play a vital role in electrifying rural communities.
- Africa's renewable electricity share grew 7% in the decade between 2012 and 2022, from 17% to **24%**.
- Africa and the Middle East combined benefited from **1.6%** of global investment in renewables.
- Investment in renewables in the Middle East and Africa region combined increased only 3% in 2022 to reach USD **8.4 billion**.
- **South Africa** led the continent in renewables investment, with a 45.4% increase to USD 2.2 billion, followed by **Egypt** with an increase of 669.2% to USD 1.8 billion.

#### **Key drivers**

- Africa is exploring the use of biofuels and green hydrogen as alternatives to fossil fuels. Biofuel production from agricultural waste and energy crops has the potential to provide sustainable transportation fuels.
- The renewable energy sector offers substantial economic opportunities for Africa. Political leaders aim to attract domestic and foreign investments to develop renewable energy projects, stimulate local industries, and create job opportunities.

#### **Key challenges**

- Limited access to financing and investment is a major challenge for renewable energy developments in Africa.
- Expanding renewable energy installations requires adequate infrastructure development and grid integration.
- Developing local capacity and skills in the renewable energy sector is crucial. Workforce training, knowledge transfer, and education to ensure a skilled workforce that can drive the energy transition remains a challenge.
- There is a need to streamline permitting processes, improve policy coherence, and provide regulatory certainty to attract investment and support renewable energy developments.

## Technologies

### **Bioenergy:**

- Traditional use of biomass (the burning of wood, charcoal, and waste for heating and cooking, often a polluting process) accounts for more than half of all bioenergy use in Africa.
- In Sub-Saharan Africa, modern bioenergy is used mostly for clean cooking. However, only 17% of the population has access to clean cooking.

### **Concentrating Solar Thermal Power (CSP):**

- New CSP projects in Africa include a 100 megawatt (MW) facility with 12 hours of storage in **South Africa**, to be completed in 2023, and the start of a tendering process for a 200 MW plant in **Botswana**.

### **Geothermal:**

- **Kenya** added the most geothermal power capacity globally in 2022 to reach a total of 0.95 gigawatts (GW).

### **Hydropower:**

- Hydropower capacity in Africa increased 2.6 GW to reach a total of 37.7 GW in 2022, generating at least 150 terawatt-hours.

### **Solar Thermal Heating:**

- **South Africa** was the strongest solar thermal market in Sub-Saharan Africa – with a 9% increase in capacity additions – and was among the top 20 countries globally in solar thermal capacity additions for electricity generation.

### **Solar Photovoltaics (PV):**

- Africa installed a total of 950 MW of new solar PV capacity additions in 2022, up 14% from the 833 MW installed the previous year.
- Countries with new capacity additions included **Angola** (284 MW), **South Africa** (111.8 MW), **Egypt** (80 MW), **Ghana** (71.3 MW) and **Mozambique** (41.9 MW).