

eMag on Climate Action in Africa

**#2 How to ensure access
to renewable energy
for rural populations ?**

02/03/23



in partnership with

**Afrik
21**

The Observatory's Lens



Renewable Energy, an Opportunity for Africa

Mélaïne Assè Wassa Sama, Climate Chance

Mélaïne Assè Wassa Sama, Project Officer - Climate Action in Africa at Climate Chance provides an overview of the renewable energy development on the African continent and presents a case study on mini-grids in Mali.

Why is access to energy a major challenge for Africa?

Energy has been in the spotlight since the Covid-19 crisis, which led to a surge in fuel prices. This increase, which is very high in Africa, has reduced the purchasing power of the population and has been aggravated by the effects of the war in Ukraine.

Access to energy is a major challenge for the continent, which is home to 17% of the world's population but consumes only 6% of the energy produced worldwide. Half of the population lives without electricity. Moreover, economic development in Africa is limited by the energy deficit. 80% of businesses suffer from power cuts. On a continental scale, electricity shortages cost between 2% and 4% of the GDP per year. Agriculture accounts for less than 10% of energy for productive purposes, even though it is the main economic sector.



In West Africa, only 42% of the population has access to electricity and just 8% in rural areas. The figures are alarming but there is hope and voices are being raised to show that renewable energy is an opportunity for Africa.

In this context, what opportunities do renewables represent for Africa?

- Environmental opportunity: leaving behind the use fossil fuels.
- Economic and political: opportunity ability to deal with crises.
- Social opportunity: ensuring universal and rapid access to electricity.

Africa has 40% of the world's renewable energy potential and 60% of solar radiation. The wind potential is estimated at 978,066 TWh/year. In addition, Africa could produce up to 50 million tonnes of green hydrogen. With the cost of operating infrastructure falling, within 10 years, renewables could account for half of Africa's energy mix.

2 interesting drivers to exploit this potential:

- **Power Purchase Agreements (PPA)**
- **Decentralised solar mini grids**

What insights can you share from the case study on decentralized solar mini-grids in Mali? ([read the case study](#))

The initiative brings together multiple levels of actors: from international to national, to local actors, to set up these small-scale electricity networks powered by photovoltaic panels. The project has provided 32 villages with access to electricity, drinking water and irrigation. It has also enabled women to undertake economic activities.

The project is financed by a \$9 million loan from the IRENA fund. It avoids about 7,000 T of CO2 per year.

For more information on the Africa Observatory, please contact Mélaïne Assè Wassa Sama : melaine.sama@climate-chance.org



Read: "Energy • Africa pursues the development of renewable energy, despite certain obstacles", Global Synthesis Report on Climate Action by Sector 2022.



in partnership with



Special segment by Afrik 21



African Mini-grids Programme & Financing for clean cooking

Jean Marie Takoulev, Afrik 21

Jean Marie Takoulev, Editor in chief of the online media [Afrik 21](#) shares news on the African Mini-grids Programme (AMP) in Nigeria and Somalia, and deals with different ways to finance access to clean cooking in Africa.



Could you please tell us how the African Mini-grids Programme works and what's new?

The programme implemented by the United Nations Development Programme (UNDP) includes 21 countries and aims to provide technical assistance and an enabling environment for private investment in solar mini-grids.

It was recently launched in Somalia ([read article](#)) to accelerate the electrification of the country where civil war has slowed the development of a uniform network. The challenge is to replace polluting systems, or make them hybrid. The programme has also been launched in Nigeria with the same goal ([read article](#)). 66% of the population of this country of 200 million still has no access to electricity.

What is the latest news regarding financing for access to clean cooking?

“900 million people in Africa still do not have access to clean cooking. To reduce the sector's financing gap, estimated at \$10 billion per year, some project leaders are turning to carbon credits.

For example, the Clean Cooking Alliance wants to use carbon credits sold by traders on the international market to take advantage of the opportunities offered by carbon credits ([read article](#)). This solution is also being explored by the French carbon credit trader for Africa Aera in partnership with Ecosphere+.

In a more traditional pattern, the Opec Fund for International Development (Ofid) is supporting the Malagasy government's efforts to provide access to clean cooking through a recent \$36 million loan for the acquisition and distribution of improved stoves to reduce people's pressure on forests ([read article](#)).

Another significant funding initiative was recently recorded in Togo with \$16 million granted by the International Finance Corporation for the distribution of cooking kits using liquefied petroleum gas, which is less polluting than wood and charcoal that are widely used South of the Sahara and contribute to deforestation.

Read more about green economy, environment, and sustainable development news
<https://www.afrik21.africa/en/>



in partnership with



Energy cooperatives, a tool for inclusive and sustainable development



Mariam Es-Sih, Sun Power Coop

Mariam Es-Sih, president of the women's cooperative SunPower Coop in Tetouan, Morocco, explains the importance of energy cooperatives in enabling inclusive and environmentally friendly economic development through the implementation of solar solutions.

What does the project consist of?

The cooperative was launched thanks to the FAREDEIC project (Femme Arganières Engagées pour le Développement Economique Inclusif et le Climat) coordinated by WECF France, which aims to develop a local renewable energy sector through women's energy cooperatives. It promotes an inclusive and climate-resilient development at local level by recognizing and strengthening the role of women in the energy transition.

“It was an enriching and interesting experience. I benefited from trainings on the manufacturing of solar cookers and dryers, as well as awareness on the existence of these solutions. We then created our own cooperative in Tetouan.

Consult the FAREDEIC project in the Cartography for Action !

Who are the actors involved?

The actors involved in the cooperative are: the Ministry of Tourism, Craftsmanship and of Social Economy (which supports training), the Spanish Agency for Development Cooperation, the Regional Council of Tangier-Tetouan, the Office for the Direction of the Creation of Cooperatives, the Faculty of Sciences of Tetouan and the Chamber of Commerce.



What are the economic and implementation challenges faced by the cooperative?

It is difficult to find a workshop but thanks to the Faculty of Science we have facilities.

At the beginning of the project, the purchase of the material required commercial studies, the elaboration of business plans and the tests raised many questions but these difficulties were overcome thanks to the support of the financial backers, in particular the AFD and the Moroccan Ministry with the AZALA program, but also the Spanish Agency for Development Cooperation. Finally, we are very lucky to have all these partners and we wish to go very far in the renewable energy and environmental protection sector.



in partnership with

**Afrik
21**

Supporting rural entrepreneurship through the solarization of economical activities



Massamba Gaye, Gret Senegal

Massamba Gaye, Head of projects 'Essential Services' for the NGO Gret Senegal presents the project titled "Productive uses of solar energy" and explains how solarisation can support rural actors' entrepreneurship and access to electricity.

What does the project consist of?

GRET provides technical and organisational support to activities for which energy is central and difficult to access. The project shows that access to electricity from renewable sources (solar) can improve economic performance. It is supported by the German development agency, GIZ, and the National Agency for Renewable Energy.

Four types of activities benefit from the project:

- 1.The production of biofuel thanks to a 3.4 KW mini solar power plant
- 2.Agro-ecological activities carried out by women's groups thanks to solar pumping
- 3.Manufacturing, tooling, maintenance and servicing of agricultural machinery and equipment with a 5.6 KW mini solar power plant
- 4.Food processing with a hybrid solar and gas dryer

Read [Gret Senegal's project](#) on our Carography for action here

Who are the actors involved?

The issue of energy is a cross-cutting one, which is why we focus on bringing together the various local actors: state structures, local authorities, local state services. We also insist on political support for projects so that they can be integrated into broader planning. A national platform has also been set up to bring together all the actors involved in productive uses of energy in order to advocacy with the government.

In addition to this, so that entrepreneurs can be autonomous and efficient, we put them in touch with the private sector to meet the material needs of their activities. We also put them in contact with the banking sector to facilitate their access to financing.

How do entrepreneurs get access to financing in the renewables sector?

This is often an obstacle because entrepreneurs are unfamiliar with financial institutions and markets and vice versa. For example, the manufacturing of agricultural machinery is a sector that is not well known to financial institutions. We are trying to show the financial sector the positive impact of solar energy on economic activities. We argue that business models in favour of the energy transition should be supported by other measures: tax benefits and technical support.



At present, the challenge is that scaling up starts with capitalising on experience to see the drivers that boost productive energy projects sustainably and in a secure way.

[Watch the replay of the eMag #2](#)



in partnership with

**Afrik
21**

Upcoming Events

Join us once a month on Thursdays from 3:00 to 4:15 PM CET for a themed virtual meeting on climate change adaptation and mitigation in Africa, followed by an e-magazine to read through.



eMag #3
March 23

**Agroecology, Food
Systems and Forests**

[Click here to register](#)



eMag #4
April 20

**Financing for Loss and
Damages and Adaptation**

[Click here to register](#)



eMag #5
May 25

**Sustainable Mobility
and Transport**

[Click here to register](#)



**Circular Economy and
Waste Management**

[Click here to register](#)



eMag #7
July 20

**Sustainable Urban
Planning and Habitat**

[Click here to register](#)



in partnership
with

**Afrik
21**

eMag written by Chloé Quinonero

association@climate-chance.org
<https://www.climate-chance.org/>