

## **Barriers for Uptake in Renewable Energy Capacity in Subsaharan-Africa**

2024

### **1. Background and context**

Konrad Adenauer Stiftung (KAS) is a German Political Foundation committed to fostering democracy and the rule of law, implementing social and market-economic structures and promoting human rights worldwide. Currently, KAS hosts more than 200 projects in around 100 countries on four continents with about 80 field offices, including 17 offices in Sub-Saharan Africa. The KAS Regional Programme Energy Security and Climate Change in Sub-Saharan Africa of the Konrad-Adenauer-Stiftung has been operational since 2017 with its head office in Nairobi, Kenya. Through the coordination of activities in the Sub-Saharan part of the continent, the Programme has a mission to improve the political and social framework for climate-friendly sustainable development, and stronger regional and international cooperation on energy security and climate adaptation/mitigation in Sub-Saharan African countries.

The untapped potential of renewable energy in Sub-Saharan Africa is almost infinite. Africa is richly endowed with solar, hydroelectric, wind and geothermal resources and has an enormous renewable energy potential, more than any other continent. To name one example, the Grand Inga dam in the Democratic Republic of the Congo can produce up to 39 000 MW, which is more than the total installed capacity in Sub-Saharan African countries, (South Africa excluded), almost twice the capacity of the world's current largest dam Three Gorges and almost a third of Africa's electricity installation. Furthermore, due to a variety of factors such as the proximity to the equator and the frequent dry bright days, the potential of solar energy is enormous all over Africa. For instance, South Africa has the potential for concentrating solar power of 43,275 TWh/year and the potential for solar photo-voltaic of 42,243 TWh/year. Most regions in South Africa may encounter more than 2500 h of sunshine with an average solar irradiation of 220 W/m<sup>2</sup>. In the case of North Africa, a solar farm spanning just 0.3% of North Africa could meet the whole European Union's electricity consumption.

However, this stands at a stark contrast to the access to energy on the continent: more than 640 million Africans have no access to clean, reliable and affordable energy. The installed capacity of South Africa, the most important industrial country in Sub-Saharan Africa, is 44 603 MW compared to 31.25 GW in the Netherlands which is significantly smaller in size. In countries such as Niger or Chad, the installed capacity is estimated to be at 125 MW and serves an average population of over 14.5 million people. The entire African continent has the potential to produce 40% of global renewable energy but only has a 1% share of installed global capacity for renewable energy, compared to countries like Germany and France which are the biggest producers of renewable energy with an average of 38%.

While the natural conditions for the installation of renewable energy capacity are largely favourable, it becomes clear that this does not transform into increase energy capacity on the continent. Increased installed capacity is almost entirely taken up by growth of population. While the data of access and installed capacity is largely available, research on the (hidden) handbrakes of installed renewable energy capacity is lacking. However, an analysis of these reasons and how to overcome them is needed to create better terms for private sector to invest in renewable energy capacity on the continent.

## **2. Main objective**

The planned study seeks to identify challenges for the uptake in the renewable energy sector on the continent and identify possible solutions to overcome these. At the same time, it should raise awareness amongst international decision-makers on how to turn the largely untapped potential of renewable energies into economic opportunities, especially for the private sector.

## **3. Outcome**

More specifically, the study seeks to:

- Identify and analyse the main challenges of the deployment of renewable energy capacity installation;
- Propose policy solutions on how to overcome the identified challenges;
- Raise awareness on the barriers of access to clean, affordable and reliant energy supply in sub-Saharan Africa;
- Highlight specific investment opportunities of renewable energy generation along the value chain;
- Formulate policy recommendations in order to increase private sector investment into the renewable energy sector.

## **4. Expected deliverables**

- A comprehensive, evidenced-based internal report including data
- An external report that captures the main findings of the study
- Two policy briefs: One for an African, one for an international audience.

## **5. Beneficiaries**

This activity is targeted to inform development partners, private investors and decision-makers.

## **6. Methodology**

A mixed methods approach is preferable. Evidence should be collected from deep-dive case studies with selected private companies, ideally operating on an international level. Furthermore, KAS welcomes innovative methods to achieve the outcomes listed above. Proposals should clearly describe the intended methodology and its linkage to intended outcomes. In responding to this call for proposals, all intended activities should be described in detail.

## 7. Qualifications

The successful bidder should demonstrate:

- Track record in the successful implementation of research activities around renewable energy and related private sector activities.
- Track record in the successful implementation of macro- and microeconomic analysis in Sub-Saharan Africa
- Strong background in evidence-based evaluation and monitoring
- Excellent command of spoken and written English
- At least 10 years of working experience in Sub-Saharan Africa, preferably focusing on sustainable investment opportunities and policy formulation.

## 8. Terms of Payment

Terms of Payment will be outlined in the contract of agreement after consultation with the successful bidder.

## 9. Call for expression of interest/proposal submission

The consultants or consultancy firms interested in this assignment are expected to submit one coherent proposal, including technical details, timetable and financial offer, including CVs and other relevant documents.

The financial proposal (budget estimates) must be submitted with an itemized breakdown of professional fees and activity expenses.

Please send all documents to: [anja.berretta@kas.de](mailto:anja.berretta@kas.de).

Deadline for applications: 12.04.2024