

Barriers hindering the energy transition in the African Union

Executive Summary

Energy transition is a key component of Africa's Agenda 2063 as it plays a crucial role in the context of development plans for developing countries. As a matter of fact, developing countries have access to cheap and locally available energy sources, which are very hard to substitute. At the same time, these sources pose environmental and health threats to African people. Furthermore, energy transition is hindered by critical **cultural and socioeconomic barriers** that would need to be addressed to ensure a sustainable energy transition process in the African Union (AU). This policy brief draws on the ONEPlanET project's analysis of the identification of barriers and gaps to be overcome and to ensure a smooth energy transition in the African continent. This document also proposes recommendations for enhancing policy alignment and streamlining implementation to yield more solid outcomes.

Introduction

Energy transition is a key factor in **sustainable development and economic growth**. For this reason, it is necessary that international, national and regional organisations prioritise the energy transition process in their plans. In particular, this needs to be done in the context of the **Water-Energy-Food (WEF)** system and the related policies for the promotion of energy transition programs in the AU.

The ONEPlanET project analysed the international and intra-African agreements and partnerships, defining their roles in the international energy landscape and their limitations, while also identifying potential cultural and socioeconomic barriers to energy transition in three key African regions—the Bani River Basin (Mali), the Songwe River Basin (Malawi-Tanzania), and the Inkomati-Usuthu Water Management Area (South Africa).

This analysis observes the main barriers and gaps to a fruitful energy transition process and proposes recommendations to better align policies with the energy transition objectives of Agenda 2063.

Methodology

The ONEPlanET project focused on the **detection of barriers** to the creation of positive conditions for sustainable development and the mitigation of social disparities. The intention was to work at **policy and regulatory levels** to find which factors negatively impact society and how these directly affect the population.

Furthermore, some high-level mechanisms able to privilege most vulnerable society segments were identified, considering **local cultural background** and **local financial availability**.

The work included interviewing at least **10 relevant stakeholders** in each African case study river basin to find existing obstacles in the sustainable energy transition or how to tackle energy poverty and global energy access.

Approach and results

Energy transition must be a **priority** in the development of poverty alleviation projects and plans in developing countries, especially, considering how developing countries are momentarily employing energy sources and the potential implications of such a change.

Consulted stakeholders have mentioned on multiple occasions how **poverty** and the **level of education** should be considered the major barriers to energy transition. Indeed, these factors contribute to unequal distribution and usage of contemporary energy sources, even if it is critical to highlight that rural areas are mainly employing bio-



resources, while people in urban areas can access diverse energy resources.

Moreover, the analysis underlines that **renewable and decentralised energy systems** could offer significant advantages for the local populations of the basins, as it will make them independent from the development of large power plants connected to the national grid that are hundreds of miles distant. Nevertheless, the equipment, installation and management costs of household-based energy production are still too high.

The analysis also reveals that despite the national level's proclaimed commitment to energy transition, **sectoral-level adoption of energy transition policies** has been far slower. Policy documents, while at times recognising that energy access is an issue for women and disadvantaged groups, fail to provide clear guidance for implementation actions to improve access, thereby limiting the accountability of duty-bearers.

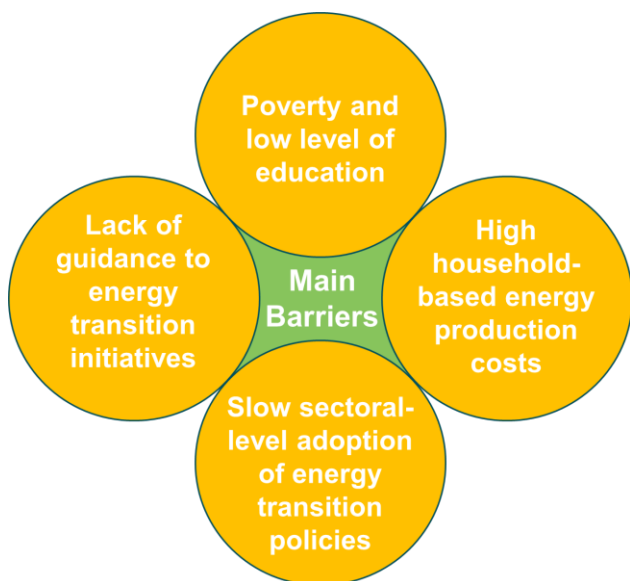


Figure 1 Main Barriers to Energy Transition in the African Union

Another discovery relates to the fact that Africa has a **meaningful solar energy potential** since a significant portion of its land mass is located close to the equator, where it receives strong sunshine all year long. However, the installation of solar energy systems is pricey. Policies and strategies must promote the use of solar by reducing the cost and improving accessibility of solar panels and batteries to low-income segments of the population.

Conclusions

The analysis shows relevant barriers and opportunities related to sustainable energy transition. This is mainly related to the responsible deployment of sustainable energy and the mitigation of social inequalities in access to energy. To enhance the successful implementation of energy transition plans, overcoming these barriers is crucial.

Recommendations

To address the identified barriers and smoothen the energy transition, the following actions are recommended:

1. Prioritise energy transition
 - Strengthen the institutional framework, in particular by ensuring fast and successful implementation of energy transition policies on a sectoral and regional level
 - Reinforce the capacity of the population on exploiting the opportunities connected to this transition process with a view to enable a just transition
2. Implement renewable decentralised energy systems
 - Invest in equipment and installation costs and look for investors to ensure full coverage of the necessary instruments for the transition
 - Form people on the use of these innovative energy systems and educate them on their potential to ensure acceptance and application
 - Ensure the long-term availability of energy sources by fostering sustainable investments and implementing appropriate adaptation measures to mitigate climate risks



3. Invest in R&D on solar energy systems

- Ensure the implementation of investments in solar energy technologies
- Policies need to incentivise this system by reducing costs and improving accessibility also to the minorities
- Implement maintenance plans to ensure availability of the technologies in the long term
- Monitoring and evaluation of renewable energy projects

