



October 2022

Policy Brief

Financing Flow for Renewable Energy

Renewable Energy Investment

at National and Local Level in Tanzania



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TaTEDO

This brief was developed by the Sustainable Energy Forum (SEF),
coordinated by TaTEDO, WWF Tanzania & Climate Action Network Tanzania.



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SUMMARY

Key Messages:

- **DE-Risking of Finance** can attract investment
- **Attract private sector investment** to cater inadequate public finance for high up front capital costs.

Recommendations:

- **Long-term:** Establishment of Tanzania Renewable Energy investment bank, Green Bonds & Microfinance, project database for RE finance support
- **Medium term** Develop climate finance strategy, governmental guarantee scheme, reallocation of Local Government Authority (LGA) funds, special incentive schemes for hybrid systems, microfinance instruments
- **Short term :** Strengthen skills and appetite to access finance from Green Climate Fund (GCF,) Adaptation Fund (AF) and Clean Development Mechanism, (CDM) tap on Africa Development Bank Renewable Energy Investment Facility, increase private sector participation in country strategic paper for RE financing.

INTRODUCTION

Untapped potential

Who pays the transition ?

Tanzania continues to be among countries whose population largely relies on the use of traditional biomass (firewood and charcoal) and fossil fuels as a main source of energy. From the power generation side, nearly 60% of the total installed capacity of electricity production in the country originates from natural gas (a non-renewable fossil fuel), with only 37% originating from the renewable hydro sources. When it comes to the consumption side, mostly at household level, more than 85 percent of Tanzanian households rely on biomass fuels for cooking, associated with indoor air pollution and related health issues as well as significant amounts of deforestation. Yet, the country is endowed with huge potential of producing and consuming

energy from a wide range of clean renewable energy sources such as solar, wind, geothermal and clean biomass.

Despite the endowed renewable energy potentials there is a little realization of the energy projects due to the limitation of financial aspects. These aspects arise from limited investment from both private and public sectors as well as the public adoption and utilization of Renewable Energy products. Currently many renewable energy projects are donor financed with limited private investment and institutional involvement from Tanzania. The current commercial bank portfolio on financing renewable energy projects is less than 1% of the total loan advance in various sectors.

It is against this background; a desk review study was undertaken so as to establish the key policy constraints and key recommendations to enhancing renewable energy financing in Tanzania.

APPROACH & FINDINGS

The study undertook a desk review approach to collect informed data on the renewable energy financing. Below are the key findings from the preliminary literature review undertaken

Key Findings

- Higher level of political and financial risks
- Renewable sources are competitive with conventional generation technologies in terms of leveraged cost of electricity
- High currency risks
- High level of inflation
- Low transaction volumes
- General credit squeeze on commerce banks
- Low availability of long-term loans
- Short payback period and high cost of debt financing
- Renewable energy projects generally have a high capital cost, and typical financing instruments available on the Tanzanian market are not well-suited to the de-

velopment of renewable energy projects, which require low cost, long-term debt.

- The banking sector and investors have limited experience with financing renewable energy projects.
- Lack of in-house skills to evaluate and negotiate projects
- Increased transaction costs with initial investments
- The informal nature of the fuelwood/charcoal industry and low incomes make it difficult to gain access to capital needed to improve production, develop sustainable wood sources and reduce consumption by using more efficient devices.
- Renewable energy projects have a high capital cost. Technologies are capital intensive and the period for pre-investment, financial closure and construction is of long duration. The types of financing and financing conditions available domestically are not well suited to the development of renewable energy projects.
- High project risk insurance, up-front investment cost and investment risk hinder private sector investment.

DE-RISK FINANCE TO ATTRACT INVESTMENT

CONCLUSION

High Potentials of Renewable Energy

Although these barriers are still powerful, Tanzania has been making serious efforts to modernize its energy sector and foster renewable energy adoption and energy access. The availability of safe, reliable, sustainable and reasonably priced energy services has been a constraint in the past and is an opportunity for the future of the country. In terms of price, renewable energies are competitive with fossil fuel generation, but they are still largely unexploited. Their contribution to both centralized and decentralized energy services can be much higher than present values and current business-as-usual plans, bringing benefits that are not only economic but also social and environmental. It is argued that Tanzania is endowed with high potential of renewable energy sources which include biomass, solar, wind, rivers, geothermal, and the ocean (tidal and waves) that must be utilised to support just socio-economic transformation. There are many new innovations like hydrogen that are not yet being considered. Diversification of energy sources including electricity generation critically important, particularly to address energy poverty and increased energy democracy in the face of increasingly unpredictable hydroelectric power resulting from the effects of climate change and

RENEWABLE ENERGIES ARE COST COMPETITIVE TO FOSSIL-BASED ENERGIES

RECOMMENDATIONS

Below are the proposed recommendations on how to finance the renewable energy sector in Tanzania. The recommendation is clustered in three categories:

Long term measures

- Establishment of the Tanzania renewable energy investment fund/ bank
- Green bonds for RE projects
- Establish a database of support programs with detailed information of banks and other resources
- Microfinance organisations, coupled with technical assistance, regulated interest rates and technology transfer, can be used to provide financing.

Medium term measures

- A need for a climate finance strategy
- A need for a climate finance institution to assist RE fund application and allocation
- Government guaranty scheme to subsidize local and foreign investors on RE technologies
- Re-Allocation of LGA funds to finance renewable energy technologies
- Special incentive schemes offered by the government directed to the local and foreign investors
- Special incentive schemes on the existing solar hybrid system that will be backed by the existing regulations on net metering
- Special incentive schemes offered by the government directed to the users of Renewable Energy i.e. subsidization of electricity costs
- Capitalize the special window of various ongoing energy efficient projects i.e. EU support on energy
- Design a microfinance and lease instrument for RE installation for households and small and medium enterprises
- By increasing access to long-term financing through commercial banks, the high capital expenditure can be spread over a longer period. Transaction advisory services can be expanded to assist local developers in finding equity partners. Thus, WB or similar credit lines should be extended and scaled up. Partial risk guarantee instruments can be offered to cover off-taker, currency and other commercial risks that foreign equity partners may require.
- Inclusion of insurance companies on mitigating risks resulted from RE projects

A need to establish a mutual trust and good will between the local and foreign investors

Short term measures

- Special vehicle to apply and allocate the existing international financing i.e. Green Climate Financing, Adaptation Funds and Clean Development Mechanism
- Capitalize on the Africa Development Bank Renewable Energy Investment Facility
- Women group lending schemes to be introduced by the financial institution to serve collateral
- Increased private sector participation on the development of the country strategic paper of financing

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