Policy Brief

March 2020

CSOs Call for Accelerating Implementation of Sustainable Energy for All (SE4ALL) in Tanzania in Order to Close the Energy Gap

Key messages

- Since Tanzania joined the SE4ALL initiative in 2012 is about eight years ago, yet minimal progress is recorded on actual implementation of its Action Agenda and Investment Prospectus of 2015.
- Currently, the population of Tanzanian with access to/using modern cooking solutions is about 2% which is still very low. It is very unlikely to achieve the SE4ALL targets of more than 75% of population with access to clean cooking solutions by 2030 if no concerted efforts are undertaken.
- Implementation of SE4ALL in Tanzania is hindered by impediments that include policy and regulatory frameworks, institutional, informational, economic, social and technical barriers.
- To accelerate implementation of SE4ALL in Tanzania, there is a need to stimulate growth of sustainable energy services by fostering support services and enabling environment for sustainable energy stakeholders and investors.

Introduction

Meeting the growing demand for energy in a safe and environmentally responsible manner is a key challenge. UN Sustainable Development Goal (SDG) 7 focuses on a concerted global effort to ensure access to affordable, reliable, sustainable and modern energy for all. The Sustainable Energy for All (SE4ALL) initiative is a multi-stakeholder partnership between governments, the private sector, and civil society launched by the former UN Secretary-General in 2011. It has three interlinked objectives to be achieved by 2030:-

- Ensure universal access to modern energy services.
- Double the global rate of improvement in energy efficiency.
- Double the share of renewable energy in the global energy mix.

Globally about 840 million people are still without access to electricity. The share of the global population without access to clean fuels and technologies for cooking is about 3 billion. Sub-Saharan Africa remains the region with the largest energy access deficit, with 573 million lacking access to electricity (Tracking SDG7, Energy Progress Report of 2019) and about 82 million reside in just three countries; Kenya, Tanzania and Uganda (WRI, 2019)1. A projected 650 million people are likely to remain without access to electricity in 2030, and nine out of ten such people will be in Sub-Saharan Africa.

This policy brief aims to contribute to the discussions on progress of SE4ALL initiatives in Tanzania and propose possible measures to accelerate its implementation to close the existing energy gap.

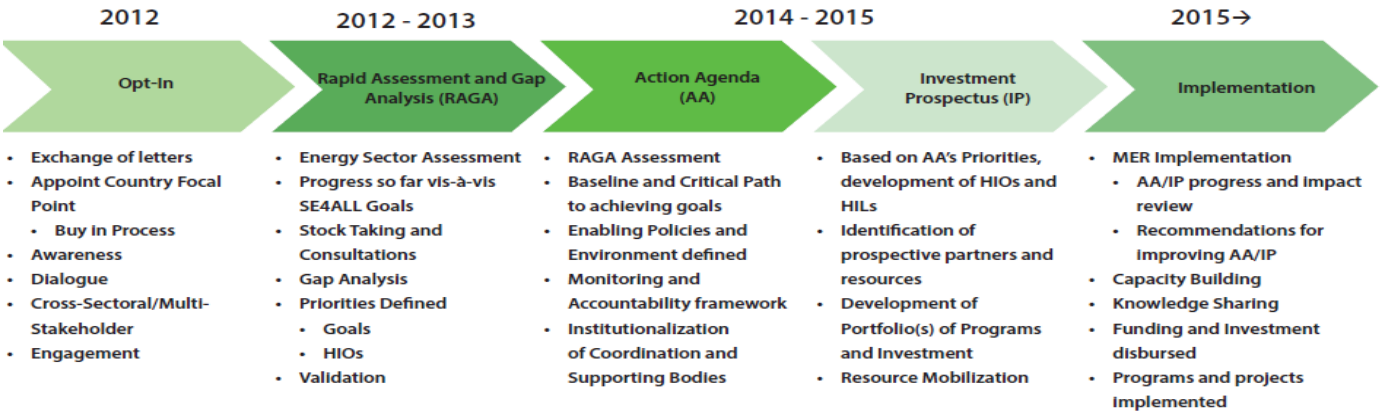
The SE4ALL Initiatives in Tanzania

Tanzania opted-in and became one of the fourteen early movers for Africa in 2012 for the SE4ALL global platform. Figure 1 shows the Tanzanian proposed actions and timelines. Tanzania GAP analysis report was completed in 2013. The preparation of the Tanzania SE4ALL Action Agenda (AA) and Investment Prospectus (IP) was completed in 2015 and the official launch was in June 2016. These documents outline four national targets that are in line with the SE4ALL objectives to be achieved by 2030:-

[1] https://www.wri.org/blog/2019/09/millions-east-africans-who-need-electricity-data-shows-renewable-energy-most-viable-affordable-solution

- Percentage of population with electricity access increased to more than 75%.
- Percentage of population with access to modern[2] cooking solutions to be more than 75%.
- Rate of improvement in energy intensity reduced to -2.6% per year.
- Renewable energy share in total final energy consumption increased to 50% for power and 10% for heat.

Figure 1: Tanzania SE4ALL Proposed Actions and timelines



The implementation of the Tanzania SE4ALL AA was planned to be on four stages to allow continuous review, and for the development of several IPs that are tailored to address specific issues. These stages include; Transition (2015-2016), Transformation/operationalization (2016-2020), Consolidation (2020-2025) and Acceleration (2025-2030). During transition period, the main focus was on integrating the AA and IP into the government mid-term planning process by incorporating them into the Ministry of Energy (MoE) Five-year Strategic Plan (2016–2020). As part of that process, the government was to start a national dialogue with all stakeholders at national and sub-national level towards the adaptation, updating and alignment of the existing initiatives with the country's SE4ALL AA; which was not done.

Starting July 2016 - 2020, the AA and IP were supposed to be fully operational with MoE Five year Strategic Plan. The interaction expected to create synergies and contributions between the different new government plans, programs and policies with the AA and the medium term plan, resulting in a dynamic IPs portfolio. During this phase, the five year SE4ALL programme was prepared. Also SE4ALL Secretariat has been formed and SE4ALL monitoring framework prepared. The programme aimed at designing an effective mechanism to facilitate smooth implementation of SE4ALL initiatives. Implementation of the programme was planned to start on May/June 2017 which was not the case.

Tanzania Energy Situation against SE4ALL targets

The national energy balance indicates dominance of biomass use in the form of charcoal and firewood and its contribution to the total national energy consumption is about 85% (NEP, 2015). Power consumption per capita is 137 kWh (PSMP, 2016), which is rather low compared to the world average per capita consumption of 3,104 kWh per annum and even the Sub-Saharan African's average per capita consumption of 488 kWh per annum. About 32.8% of the Tanzanian population is connected with electricity, where urban and rural electricity connection level is at 65.3 and 16.9% respectively (NBS & REA, 2017). This implies that the population connected to electricity is about half the SE4ALL target of more than 75%.

The use of firewood as the source of energy for cooking is still predominant in Tanzania. According to Energy Access situation report, 71.2% of households use firewood as one among the sources of energy for cooking, followed by charcoal (37.0%) and kerosene (5.0%) (NBS & REA, 2017). By 2016[3] the percentage of population with access to

[2] Means energy that is based on petroleum, electricity or any other energy forms that have commercialized market channels, a higher heating or energy content value than traditional energy

[3] https://www.se4all-africa.org/seforall-in-africa/country-dat/tanzania/

clean fuels and technologies for cooking was 2.2%. Comparing the current situation and the SE4ALL target of more than 75% of population accessing modern cooking solutions by 2030 it is very unlikely to reach the target.

Power System Master Plan of 2016 suggests the optimum future electricity generation expansion ratio as: 40% natural gas, 35% coal, 20% hydro and 5% other renewables. In the existing conditions, the renewables constitute only around 2% of the overall grid power generation. This situation calls for diversifying the energy mix and tapping into renewable energy (RE) sources which are less vulnerable to climate change and low carbon emissions.

SE4ALL Implementation Barriers and Gaps

Despite the abundance of energy potential resources in Tanzania there are number of barriers and gaps which need to be overcome at various levels to be able to achieve SE4ALL targets, Table 1.

Table 1: Tanzania SE4ALL implementation barriers and gaps

Socio-economic barriers	Widespread poverty in the country (26.4%[4] of the population live in poverty) and high unemployment rates, affecting affordability of clean and modern energy services
Institutional gaps	• Institutional capacity and human resources constrains limit the pace of SE4ALL implementation. • Insufficient local industry for sustainable energy
Policy/legal gaps	• Absence of dedicated RE and EE policies and strategies with clear targets • No clear framework guiding the introduction of efficient cooking/heating systems
Regulatory gaps	• Inadequate quality equipment and service standards for various RE and EE equipment • Inadequate monitoring and verification systems for utility transmission and distribution losses and for savings by demand-side measures.
Investment and financing gaps	• Under developed financial sector to support developers/suppliers and end user for uptake of sustainable energy technologies and services. • Absence of clear policies in terms of how off-grid/mini-grid investments will be accommodated when the national grid reaches such areas currently far from the grid.
Projects, technology development and transfer gaps	• Inadequate focus on research and development of sustainable energy sector, no visible plan/budget allocated for, lack of proper international research and development collaborations that can easily accelerate transferable skills and technologies. • Unsustainable cooking/heating programmes due to the absence of strong policy frameworks.
Capacity gaps	• Insufficient technical, entrepreneurial and managerial skills to propagate uptake of sustainable energy technologies through business models. • Limited capacity to prepare Integrated Resource Plans (IRPs) and related economic analysis and demand forecasting analysis. • Limited skills of project developers for project development and for accessing various financing opportunities.
Information, knowledge and awareness gaps	• Inadequate processed information to assist planning and project implementation, including lack of adequate and verifiable data that can guide investments in sustainable energy projects. • Limited awareness of the technical and economic possibilities of sustainable energy technologies and their applications. • Insufficient awareness on potential economic, social and environmental benefits of sustainable energy.
Cross cutting and cross-sectoral gaps	• Insufficient integration of energy needs to alleviate poverty in energy planning • Insufficient climate change mainstreaming in energy planning and development • Little attention given to gender mainstreaming in the development of energy policies, etc. • Limited integration of land use, food security, water, forestry, biodiversity and social issues in energy planning

[4] NBS 2018. Tanzania Mainland Poverty Assessment Report, https://www.nbs.go.tz/index.php/en/census-surveys/poverty-indicators-statistics/other-poverty-related-statistics/475-tanzania-mainland-poverty-assessment-report-executive-summary

Policy Recommendations

Policy and decision makers could consider the following actions to accelerate implementation of SE4ALL in Tanzania:-

- EWURA to develop and adopt cost-reflective tariff methodology and guidelines for both grids and mini-grids.
- MoE to tailor policy frameworks for cooking/heating programmes to encourage the business sector to invest in a significant way, hence creating sustainability.
- The Tanzania Bureau of Standards (TBS) to establish and enforce Minimum Energy Performance Standards (MEPS) and appliance labeling to limit Tanzania becoming a "dumping ground" for inefficient energy products from local and international manufacturers.
- EWURA to review and simplify the steps, procedures and requirements in the sustainable energy development process in particularly the mini-grids to accelerate its development.
- Create innovative micro credit financing/special purpose investment fund for cooking/heating RE and EE projects and off-grid electrification, to upscale adoption of sustainable energy equipment such as improved cook stoves, efficient electric cooking appliances and solar lanterns, etc.
- Government to give priority on research and development of sustainable energy in particularly cooking energy by allocating resources to universities and institutions of higher learning.
- Introduce policy instruments and incentives that can encourage local manufacturing of sustainable energy systems e.g. large-scale productions of high-efficient biomass stoves, efficient pressure cookers, solar panels, etc.
- MoE to ensure sector planning is informed by adequate, reliable and up-to-date data, monitored against clear targets.
- CSOs to raise awareness and impart knowledge regarding the use, importance, socio-economic and environmental benefits derivable from sustainable energy technologies and services.
- Encourage multi-stakeholder (public-CSOs-Private) partnership to leverage skill and knowledge gap on sustainable energy technologies and services.
- Ensure policy coherence between interconnected SE4ALL goals and sectors policies.
- Mainstream gender in the energy sector and enhance energy access for women and other vulnerable groups through targeted programmes, informed by gender energy need assessment, supported by gender disaggregated data and innovative financing mechanisms.
- Government to realize climate change obligations and implement commitment such as National Determined Contributions (NDCs).
- Promote local level energy planning and productive use of sustainable energy to improve energy access, affordability and income generation.

Reference

1. Tanzania SE4ALL Action Agenda and Investment Prospectus
2. National Bureau of Statistics (NBS) and Rural Energy Agency (REA) 2017. Energy Access Situation Report, 2016, Tanzania Mainland.
3. Southern African Development Community (SADC) 2016. Renewable and Energy efficiency Strategy and Action Plan for 2016 – 2030
4. TaTEDO and WRI 2018. Accelerating Mini-grid deployment in Sub-Saharan Africa, Lessons from Tanzania.

The brief has been prepared by Tanzania Traditional Energy Development Organization (TaTEDO) and reviewed with partner CSOs as part of the East African Civil Society for Sustainable Energy & Climate Action - EASE &CA project. For further information contact TaTEDO, P. O. Box 32794, Dar es Salaam, Tanzania. Tel: (+255) 738 201498/22-2700438, Email: energy@tatedo.org, Website: www.tatedo.org