

Sustainable Energy Futures for Tanzania Report

Call for Researchers

Deadline for abstract 22 July 2024

Deadline for full papers/articles 30th September 2024

The Society for International Development (SID), in partnership with the Heinrich Böll Foundation, we are seeking to commission insightful, well-researched think pieces that delve into the multifaceted challenges and opportunities within Tanzania's energy system to contribute to the curation of the **Sustainable Energy Futures for Tanzania Report**.

This is therefore, an official call for Tanzanian researchers and energy experts to submit **research abstracts** on any of the research themes and topics listed below:

Thematic areas

A. Policy and Regulatory Framework for energy in Tanzania

- The policy environment and key actors (government, businesses, financiers)
- Policy formulation, what are the gaps? Alignment to other development plans and strategies in the country.
- Regulatory mechanisms in place, challenges to enforcing these regulations. Who are the key decision makers?
- Tariffs and pricing structures, who are the price determiners? How do we balance access and profits?
- Public- private partnerships in the energy sector.

B. Net Zero? - Prospects and Possibilities for a Just Transition in Tanzania

- Decarbonization and implications for economic growth and energy access: Potential opportunities, challenges, and gaps? Energy projects in the context of climate change.
- Fossil fuels and development: Six years before the 2030 SDG targets and new investments in fossil fuels, is the country transitioning? What facilitates this transition, technologies, innovations, etc.? Implications of transitioning.
- Natural Gas Developments in Tanzania: Current role, the LNG project.

- Critical minerals – who will control them? Use in Tanzania or global markets? the multifaceted social and environmental costs of critical mineral extraction. What impacts do we see in health, livelihoods, human rights and on land? Long-term impacts?
- Implications of transition on fossil fuel reserves in Tanzania: Stranded assets
- Description and dilemmas of energy demand and energy poverty in Tanzania.
- Sustainable energy, energy access, and equity across rural and urban populations, is clean cooking a priority in Just Energy Transition?

C. The Political Economy of Energy in Tanzania

- Main drivers: The main drivers that created this system and how that could shape the future direction of energy in Tanzania should be considered.
- Regional and international cooperation, Power pool agreements – EAPP and SAPP – and the available opportunities. Global energy patterns and implications for Tanzania and the region.

D. Figures and Statistics on Tanzania's Energy System

- The energy system in numbers: Fossil fuels, renewable energy potential, demand, and its drivers, supply, and costs/tariffs
- Rural energy development: Electrification access versus connectivity, affordability
- Renewable energy development in numbers
- Misinformation and inaccurate data – who is generating this data and why? And what is the motivation?

Context and relevance

Tanzania's energy system is a complex and dynamic environment that mostly depends on natural gas, hydroelectric power, and traditional biomass. As of 2021, Tanzania's total electricity supply was 1,605.86 MW, with hydropower accounting for 562 MW. However, with the poor rains experienced over the years, hydropower production has been affected. A combination of gas-fired power plants, hydroelectric power plants, and an increasing number of renewable energy projects make up Tanzania's energy mix. Natural gas is critical, with significant reserves estimated at around 45 billion cubic meters, primarily

located in the Songo Songo and Mnazi Bay fields. Tanzania's growing population and economy are the key drivers of the growth in energy demand.¹

With the many initiatives and reforms being implemented, Tanzania still faces numerous challenges in meeting the growing energy demand. Adverse climatic conditions continue to impact hydropower generation, significantly affecting the electricity supply. Tanzania's energy sector continues to be characterized by high energy prices, limited access and connectivity is still prevalent, especially for rural areas,² and high reliance on biomass for household uses. Major gender and social inclusion issues have also been highlighted, with women and girls not being spared and bearing a huge burden of energy poverty in the country due to gender norms and traditions that hinder access to modern energy services.

There have been significant efforts to incorporate renewable energy into the country's energy mix. Though renewables investments are still small, the country's goal is to produce 60000MW by 2025. Several grant agreements and initiatives, such as the 50 MW solar power plant in Shinyanga, demonstrate the nation's determination to increase the renewable energy component in its energy mix.³ The country also participates in regional energy initiatives to increase energy connectivity, enhance energy security, and open new trading opportunities for electricity, such as the Zambia-Tanzania-Kenya Interconnector.⁴

Addressing these energy challenges and leveraging emerging opportunities in Tanzania are critical as it has made significant developmental progress. Growth in industrial production and the economy is highly dependent on reliable, affordable, and sustainable energy systems. Diversifying energy sources can mitigate the impact of climate-related disruptions and improve national energy security by guaranteeing a consistent and dependable supply. Using renewable energy sources lessens carbon emissions, improves the environment, and aligns with sustainable development goals while reducing the health risks associated with biomass usage. Improving rural electrification promotes social development, improves the quality of life, and lessens the gap between urban and rural communities, thus contributing to social equity.

¹ Tanzania - Energy. (2022b, December 14). International Trade Administration | Trade.gov. <https://www.trade.gov/country-commercial-guides/tanzania-energy>

² Mugogo, F. A. (2023, May 5). Rural Energy Master Plan - REMP. Rural Energy Agency (REA). <https://rea.go.tz/Articles/rural-energy-master-plan-remf>

³ Admin. (2023, June 7). Tanzania signs first 50 MW solar power agreement for national grid integration - TanzaniaInvest. TanzaniaInvest. <https://www.tanzaniainvest.com/energy/shinyanga-solar-power-project-agreement>

⁴ Singh, K. (2022, February 20). Tanzanian Power Sector: Ambitious targets set for the coming decade. REGlobal. <https://reglobal.org/tanzanian-power-sector-ambitious-targets-set-for-the-coming-decade/>

Focus of the Report

The ***Sustainable Energy Futures for Tanzania Report*** intends to present research findings in the different thematic areas identified, generate critical analysis of challenges, opportunities and emerging issues in Tanzanian's energy system and present feasible policy recommendations.

Interested researchers are invited to submit their resumes accompanied by a research abstract (max. 500 words) to sidsec.nbo@sidint.org with an email subject “**EOI: SEF Tanzania Report**” on any of the thematic areas indicated above by close of business on Monday **22 July 2024**.

Kindly note that if selected, the final and completed research papers, in the form of articles and think pieces are to be submitted no later than **Monday 30 September 2024**.