

The KENYA INSTITUTE for PUBLIC
POLICY RESEARCH and ANALYSIS

Thinking Policy Together



Youth employment opportunities along the biogas sector in Kenya

Introduction

The biogas sector offers potential employment opportunities, but its adoption remains low, with only **0.4% household** penetration as of **2022**. Biogas production processes such as feedstock collection, installation, and distribution can create jobs, but the sector currently employs just **11,501 people** annually, indicating under-exploitation. Despite some efforts like the Kenya National Domestic Biogas Programme, low adoption rates and reliance on other energy sources like firewood hamper growth.

There needs to be a coordinated effort to identify job opportunities in the biogas sector for the youth and promote sustainable energy solutions.

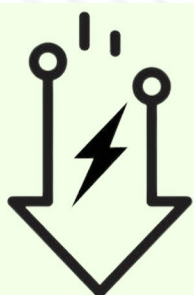


Key Messages



1. Biogas Sector Holds Untapped Employment Potential

- The biogas sector employs only about 11,500 people annually, a low figure given its potential to absorb youth in various stages of the value chain.



2. Low Adoption of Biogas Energy

- As of 2022, only 0.4% of households use biogas, with 27 counties (over 50%) yet to adopt it. Rural areas report especially low accessibility (0.3%).



3. Small-Scale Nature of Biogas Limits Impact

- Most biogas systems in Kenya are designed for household or community use, with limited capacity (0.3 GWh as of 2022), restricting their scalability and energy contribution.



4. Mismatch Between Plant Growth and Energy Output

- While **25,000 biogas plants** have been installed, the relatively low capacity suggests a focus on small-scale setups, affecting the sector's overall productivity and job creation capacity.



5. Environmental and Health Benefits Undermined by Low Adoption

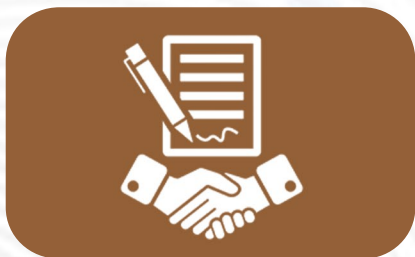
- Continued reliance on firewood by **68% of households** causes pollution and health risks, emphasizing the urgency of promoting cleaner alternatives like biogas.

Policy Recommendations



1. Promote Biogas Adoption in Underserved Counties

- Unveil awareness and subsidy programs in counties with low or no adoption to expand market penetration and create localized employment.



2. Develop a National Biogas Strategy Focused on Employment

- Integrate youth employment objectives into biogas development frameworks to capitalize on its job creation potential across installation, feedstock supply, and distribution.



3. Support Biogas Entrepreneurs and SMEs

- Provide targeted financing, technical assistance, and market access to startups and small enterprises along the biogas value chain.



4. Invest in Medium-to-Large Scale Biogas Projects

- Shift part of the focus from household units to community and industrial-scale biogas plants to boost energy output and employment numbers.



5. Enhance Vocational Training and Certification

- Create training programs for youth in biogas technologies, safety, maintenance, and entrepreneurship to build a skilled workforce for the sector.



6. Strengthen Inter-county Coordination and Public-Private Partnerships

- Facilitate collaboration across counties and with the private sector to scale biogas infrastructure and create regional employment hubs.



7. Include Biogas in Broader Climate and Energy Policies

- Position biogas as a key pillar in Kenya's green transition agenda, ensuring it receives the same policy and investment attention as geothermal and hydropower.

