

EVI-SICEE RESEARCH BRIEF No. 02

Unlocking Women and Youth Clean Energy Entrepreneurship Potential through an Enabling Environment: Lessons from Kenya

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Key Messages

- Simplify and fast-track licensing, compliance, and registration processes to reduce administrative burdens on small-scale and grassroots clean energy entrepreneurs
- Enhance access to affordable and targeted financing for women and youth entrepreneurs by developing inclusive financial mechanisms, such as grants, low-interest loans, and guarantee schemes, tailored specifically for clean energy initiatives
- Supporting women and youth in clean energy entrepreneurship is not just a social justice imperative but a strategic economic opportunity to stimulate job creation, economic growth, and sustainable development
- Revise the Kenya Feed-in Tariff (FiT) Policy (2021) and the Kenya Renewable Energy Auctions Policy (2021) to include provisions that specifically support youth and women small-scale and community-driven clean energy projects by reducing collateral demands and financial thresholds.
- Strengthen partnerships between emerging women and youth entrepreneurs and established energy companies to enhance market access, supply chain integration, and product commercialization.
- Invest in targeted capacity-building programs that equip women and youth entrepreneurs with the technical skills and business management knowledge needed to successfully launch and scale clean energy projects.
- Leverage on ongoing initiatives lead by the development partners, the government, and the key stakeholders to integrate inclusive entrepreneurship opportunities.



Overview

Women and youth in Kenya hold immense potential to drive clean energy entrepreneurship and there is a growing opportunity to unlock this potential by enhancing policy support, expanding access to financing, strengthening capacity gaps, simplifying regulatory environment processes, and improving market integration. Tapping into this underutilised talent pool can accelerate the adoption of renewable energy technologies crucial for mitigating climate change and reducing energy poverty. Financial constraints, lack of technical skills, and burdensome licensing processes are among the main causes, resulting in underutilization of human capital, missed economic opportunities, and slow progress toward sustainable energy solutions. Women's business success translates into reinvestment in families and communities, compared to male entrepreneurs (Pazarbasioglu, 2017). To realize these transformative impact, policymakers and stakeholders should develop inclusive financing mechanisms, provide targeted capacity-building programs, streamline regulatory processes, and enhance market linkages, ensuring women and youth are supported to lead in clean energy innovation and entrepreneurship.

Approach and methodology

This article is part of a project, *Evidence for Informing Scaling and Impact in Youth and Women-Led Clean Energy Enterprises* (EVI-SICEE) in Africa, funded by IDRC and implemented by a consortium led by the African Centre for Technology Studies (ACTS). In 2024, ACTS and partners conducted an assessment to evaluate the status of women and youth entrepreneurship in Kenya's clean energy sector. The study employed both quantitative and qualitative methods, beginning with an in-depth scoping study that guided the development of data collection tools. These tools were subsequently used to conduct a comprehensive survey involving 1,093 clean energy entrepreneurs from 32 counties across Kenya. Of the respondents, 65% were youth, while 44% were women. Notably, 57% of the participants reported being employees in different capacities within the multiple clean energy value chains. For the women and youth entrepreneurs, majority were involved in non-technical roles such as sales, supply, and distribution, while their participation in technical activities, including manufacturing and fabrication, remained limited. To enrich the data, the assessment also incorporated key informant interviews and focused group discussions. The findings were validated during a stakeholder workshop held in February 2025. This research brief integrates insights from the different data sets and evidence generated in Kenya.

Exploring the Financial Dynamics in the Clean Energy Sector

Barriers in Financing SMES: Women are predominant in Micro, Small, and Medium Enterprises in Kenya, but gender disparities are still pertinent when it comes to financing from utilities and government agencies. It is estimated that, 30 percent financing gap exists between men and women, with women led enterprises being disadvantaged (Women's World Banking, 2020), This scenario plays out in different ways in the clean energy entrepreneurship, across value chains, as evidence from the EVI-SICEE project shows.

“Securing a loan from the bank was a turning point for me. It gave me the financial boost I needed to expand my operations, although the process wasn't easy, and the conditions were sometimes challenging,” recalled one of the entrepreneurs in a coastal county.

From Central Kenya, similar sentiments were made by a clean cookstove entrepreneur, “I turned to the sacco for financial support. They were a great help in giving me the resources I needed, but I still had to be cautious with my spending to ensure I could repay the loan without putting the business at risk.”

Access to capital: This remains a significant challenge for many clean energy enterprises. According to the 2024 ACTS survey findings shown in Figure 1, the majority of businesses in the clean cooking sector (67%) were launched with initial capital of less than Kshs 50,000, highlighting a dependence on limited financial resources. This reflects the broader issue of capital constraints within the sector. However, the data also indicates a wide range of start-up capital levels, with some businesses requiring over Kshs 500,000, pointing to opportunities for larger-scale or more technologically advanced ventures. These findings suggest that while many entrepreneurs begin with minimal funding, there is room for increased investment in the sector. Supporting business growth will require targeted measures such as enhanced access to affordable finance, customized credit solutions, and capacity-building programs tailored to the diverse needs of clean energy entrepreneurs at various stages of development.

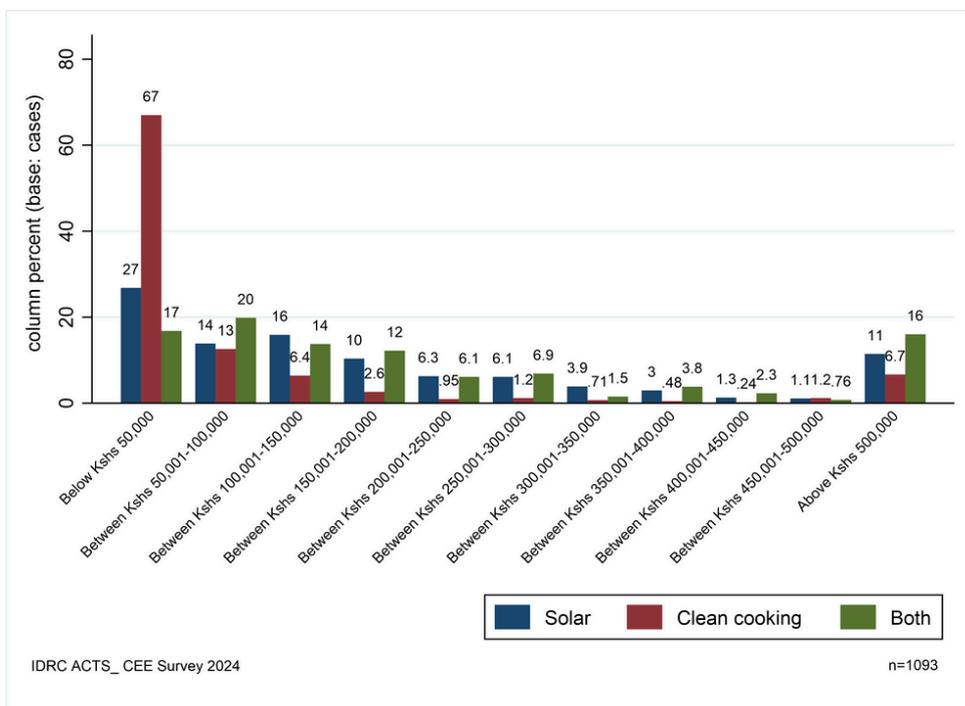


Figure. 1: Starting capital for business

Annual turnover was estimated using the monthly revenue figures provided by entrepreneurs during the survey, assuming consistent earnings throughout the year. As illustrated in Figure 2, most clean energy enterprises (CEE) across various sectors reported annual turnovers between Ksh 1 million and 3 million. This indicates that the majority of businesses—whether focused on solar or clean cooking technologies—operate within a moderate revenue bracket. While this level of income reflects notable progress, it also points to untapped potential for growth, especially for businesses aiming to scale from small to more robust and sustainable operations. These findings emphasize the need for ongoing support to strengthen business models, enhance operational efficiency, and expand market reach to increase revenue and long-term viability.

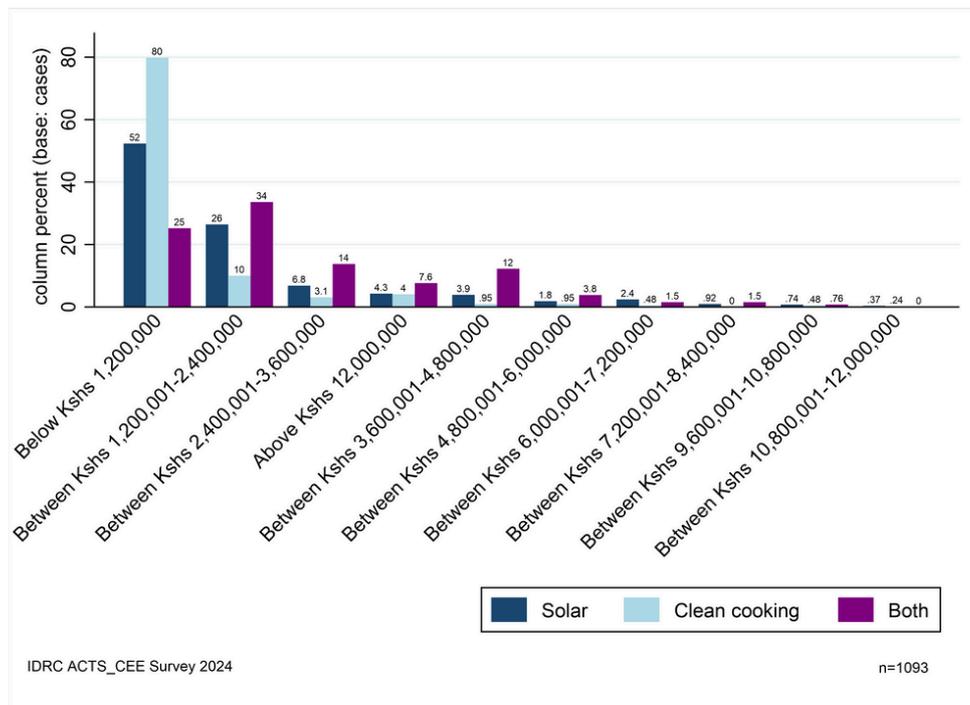


Figure 2. Average annual turnover

Access to finance remains a significant barrier for women and youth in clean energy entrepreneurship as pointed out by one of the entrepreneurs dealing in both solar and clean cook stoves.

“The business operates largely on loans from the bank, but the interest rates have become unbearable. It’s becoming increasingly difficult to maintain operations under such financial pressure, and I’m exploring alternative options.”

Synergizing policy environment for financing an inclusive clean energy entrepreneurship

Access to finance remains a significant barrier for women and youth in clean energy entrepreneurship as pointed out by one of the entrepreneurs dealing in both solar and clean cook stoves.

- The Energy Act of 2019 promotes local content and renewable energy but lacks targeted financial support for youth and women-led clean energy enterprises. There are no grants, low-interest loans, or start-up capital specifically designed for this gender-energy nexus. This omission limits their ability to access initial investment and sustain operations. Arguably, a policy instrument that embeds financial incentives and literacy would enhance inclusive entrepreneurial success. The Biashara Fund regulations among other legal instruments being developed to enhance business startups and development in the country could consider this gap.
- Kenya Start-up Bill, 2024 mentions a credit guarantee scheme but lacks affirmative action provisions or quotas to ensure equitable access for women and youth entrepreneurs. These groups often face financial challenges like limited collateral and financial literacy. There are no provisions for tailored financial products that meet the needs of clean energy ventures. Adopting blended finance models and capacity building on financial literacy would help bridge this gap.

- Energy Policy of 2018 does not adequately address financial barriers for women and youth entrepreneurs, leaving them without access to affordable financing. Existing support initiatives are fragmented and lack comprehensive funding frameworks. Additionally, the absence of tax incentives for inclusive practices reduces motivation to adopt gender-responsive approaches. Establishing dedicated funding pools and tax incentives would foster inclusivity.
- Energy Gender Policy of 2019 acknowledges financial inclusion but lacks practical implementation strategies to improve access to affordable credit and grants. This gap particularly affects entrepreneurs from marginalized areas with limited financial services. There are no partnerships with financial institutions to develop tailored products. Creating revolving funds and offering financial literacy training would enhance access and sustainability.
- The MSE Sessional Paper No. 05 of 2020 lacks adequate measures to address financial barriers faced by youth and women entrepreneurs. It does not tackle high collateral demands especially for clean energy investments or stringent lending conditions, making it hard to secure low-interest loans. There is also limited focus on financial literacy, crucial for business sustainability. Introducing innovative financing models and dedicated grant schemes would improve access.
- Renewable Energy Auctions Policy (REAP), 2021's financial requirements only favours large players and bid bonds create high entry barriers for youth and women entrepreneurs. Its focus on large-scale projects favours established players while emerging entrepreneurs struggle to participate. The absence of grants or concessional loans makes bidding inaccessible. Establishing a Youth and Women Renewable Energy Fund would lower these barriers.
- Kenya Feed-in Tariff Policy of 2021 targets medium to large-scale investors, leaving women and youth entrepreneurs unable to meet high capital requirements. While it guarantees fixed tariffs, it fails to address upfront project costs. There are no financial instruments tailored for small-scale and community projects. A Renewable Energy Entrepreneurship Fund would provide low-interest loans and grants to promote inclusivity.

Enhancing the regulatory and compliance processes for entrepreneurs

Evidence from EVI-SICEE project suggests that the government is not doing enough to promote inclusive innovation and entrepreneurship through appropriate policies.

One of the female entrepreneurs in a county in Western Kenya lamented of limited support emanating from state organs. *“We face significant challenges as we receive very limited support from the government. It’s tough to grow a business when the support system is so minimal, and we’re often left to navigate the tough road alone.”* A counterpart from a county in the Eastern region waded in the same words remarking, *“To be honest, we haven’t received any support from the government. It’s been a struggle to keep things moving forward with no assistance from the state, and we’ve had to rely solely on our own efforts.”*

The licencing process was also faulted as emphasized by one entrepreneur in electric pressure cookers business.

“I believe the government needs to step up their efforts when it comes to licensing. It’s such a critical part of our work, and without proper support and efficiency in this area, we struggle to operate legally and without unnecessary setbacks”.

To enhance a regulatory and compliance processes for entrepreneurs, we draw from our scoping study and qualitative evidence the following insights, that might inform policy and practice.

- The Kenya Start-up Bill, 2024 aims to promote innovation and entrepreneurship but does not address social, economic, or structural barriers that hinder participation of women and youth especially those in clean energy businesses due to tailored regulatory and operational challenges. While it recognizes capacity building as a key gap it misses out on mechanisms to explicitly promote technology transfer and mandated collaborations with research institutions.
- The Energy Act, 2019 is silent on deliberate efforts for simplified procedures for small-scale and community-based projects, leading to challenges in compliance and licensing. Streamlining licensing and promoting public-private partnerships could ease entry for small-scale innovators. Embedding mechanisms that align with youth and gender priorities such as simplified regulatory processes and support for community-driven clean energy solutions would catalyse inclusive participation and foster equitable access to energy entrepreneurship opportunities.
- The Energy Policy, 2018 does not address the specific barriers women and youth face when complying with market regulations or licensing standards. Moreover, it misses opportunities for mentorship and collaboration with larger corporations. Simplifying licensing and fostering partnerships could improve market access. There is an opportunity to influence the policy given the on-going review under the leadership of the Ministry of Energy (as of 2024 and 2025).
- Energy Gender Policy, 2019 promotes gender mainstreaming in the energy sector but lacks clarity on grassroots implementation. It does not establish robust monitoring and evaluation mechanisms to track progress and accountability. The absence of gender-disaggregated data limits the ability to assess the policy’s impact on women and youth entrepreneurs. Strengthening data collection and monitoring systems would enhance its effectiveness.
- Biashara Fund regulations present an opportunity for youth, women, and persons with disability by spelling out beneficiary quotas respectively as 35%, 35% and 10%. While the regulations promote financial inclusion, it fails to address specific barriers for women and youth in clean energy entrepreneurship. This can be addressed through flexibility towards diversified financial products and sufficient loan amounts given the high upfront investment costs associated with starting and operating clean energy enterprises. Kenya Micro and Small Enterprises Policy through Sessional Paper No. 05 of 2020 aims to support MSE growth but overlooks unique challenges faced by women and youth in the clean energy sector. It lacks gender-responsive and youth-centred regulatory measures, making formalization difficult. Complex registration processes and limited stakeholder engagement hamper progress. Strengthening the policy to incorporate inclusive regulatory framework, simplify registration processes and fostering collaboration with private and public sectors would unlock the full potential of women and youth-led clean energy ventures.

Further interrogation on forms of business support available to clean energy entrepreneurs included mentorship (42%), demonstrations (36%), and financial support (26%) as shown in Figure 4.

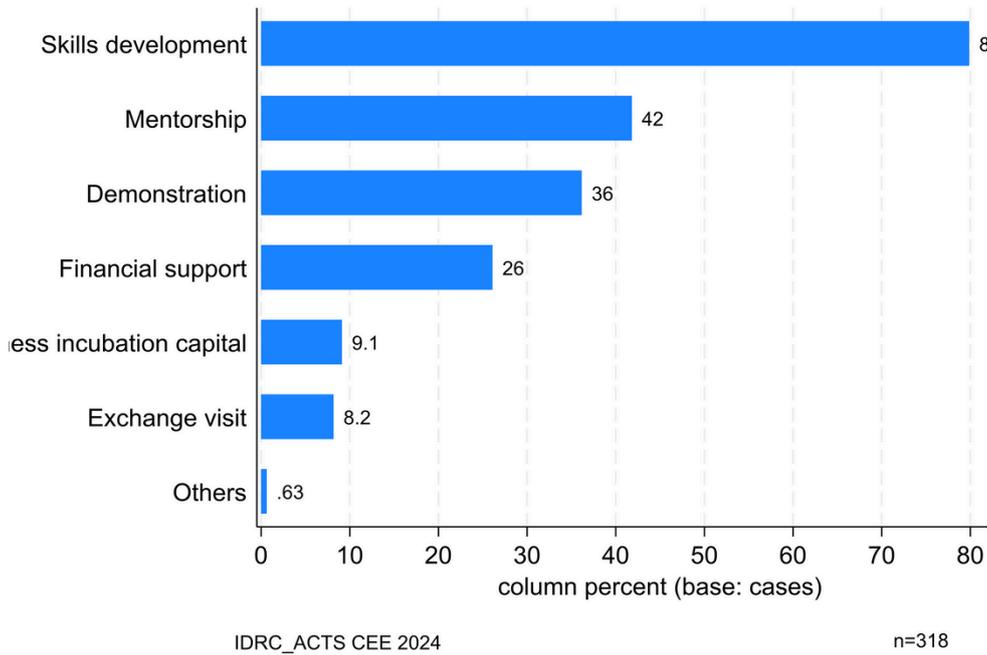


Figure 4. Perspectives on forms of business support provided to clean energy enterprises

Breaking down the support provided in terms of training by gender, Figure 5 reveals that female adults received the most training in skills development (85%) and product demonstrations (51%). Youth entrepreneurs were mainly trained in skills development (78%) and also participated actively in mentorship programs (48%).

Although financial support was highlighted as crucial for business growth by entrepreneurs (see Figure 3), it was one of the least provided forms of assistance by business support organizations. The study suggests adopting a blended business support model that combines skills development, mentorship, and financial access, offering a comprehensive approach to better meet entrepreneurs' needs and promote sustainable growth in the clean energy sector.

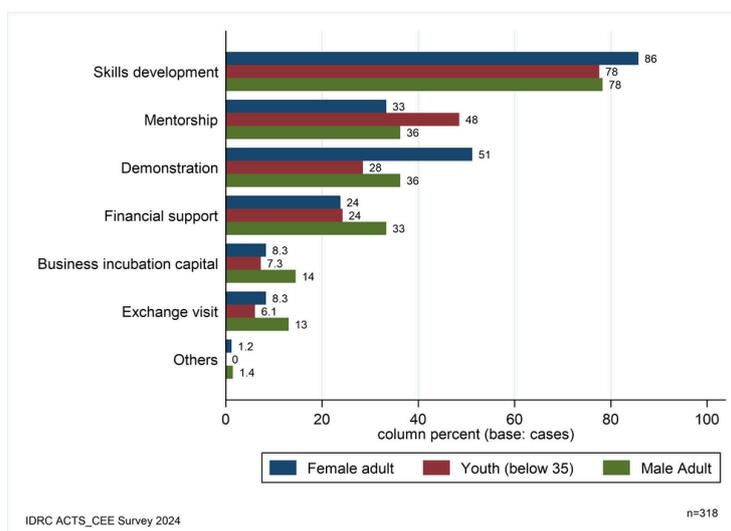


Figure 5. Types of business support by gender and age

Varying business support providers: The clean energy entrepreneurs receive support from different business support providers (Fig 6). The manufacturers were the primary providers, contributing 30% of the support. Solar companies followed with 22%, while development agencies offered 18%. Financial institutions provided 15% of the support, and business hubs accounted for 7%.

The notable role played by the manufacturing community in offering business support can be linked to the need to ensure entrepreneurs understand the usage of their products and consequently effectively advise their customers. These results highlight the diverse and integrated approach to business incubation, offering multiple opportunities from various support organizations. This suggests the need to rethink the optimal model for incubation support to enhance scaling opportunities for youth and women-led clean energy enterprises (CEEs).

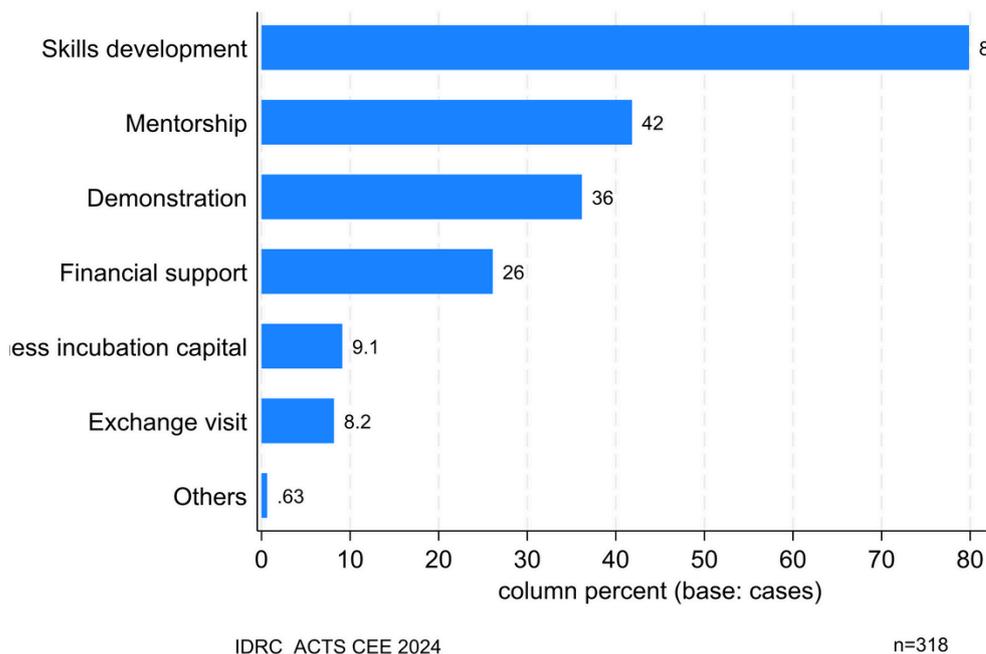


Figure 6. Types of business support providers

Unlocking Scaling and Economic Potential through Collaborative and Targeted Business Support

- The Kenya Start-up Bill, 2024 can empower women and youth in clean energy entrepreneurship by facilitating market access and creating value chain linkages. However, it lacks specific measures to connect start-ups with larger projects or export markets. Establishing skills development hubs at the sub-county level and promoting digital literacy would enhance innovation and business efficiency. Robust monitoring and evaluation mechanisms should be included to track the inclusion and success of women and youth entrepreneurs. Linking the Bill with clean energy sector priorities and national climate action goals could foster alignment and attract green investment.
- The Energy Act of 2019 lacks targeted measures to build the capacity of young and women entrepreneurs, missing opportunities to develop technical and entrepreneurial skills. It also lacks mentorship and networking initiatives that would connect them with industry experts and successful models. The Act could benefit from provisions that mandate the inclusion of gender and youth perspectives in national and county-level energy planning processes.

Amending the Act to include capacity-building programs through vocational training and mentorship platforms would bridge skills gaps.

- The Energy Policy of 2018 does not sufficiently support capacity building for marginalized groups, limiting women and youth entrepreneurs' ability to innovate and compete. It lacks data collection mechanisms to track participation and success rates, making targeted interventions challenging. Establishing innovation hubs and business incubators would foster technical and business skills development. Advocacy and stakeholder engagement through youth and women networks would ensure inclusive policy formulation.
- The Energy Gender Policy of 2019 lacks structured approaches to capacity building and mentorship for women and youth entrepreneurs. Socio-cultural norms continue to hinder women's participation in technical roles, and the policy does not adequately address breaking these barriers. Integrating mentorship and entrepreneurship modules into training institutions would build skills and confidence. Community engagement to challenge stereotypes is crucial for fostering a supportive environment and accelerate behavioural change.
- The Biashara Fund's capacity-building initiatives are generic and not tailored to the clean energy sector, leaving entrepreneurs without the skills to innovate or scale up. Limited mentorship and weak market linkages further constrain growth. Enhancing awareness, simplifying application processes, and providing tailored financial products would increase accessibility. Collaboration with training institutions and mentorship programs focusing on technical skills and market integration would support business sustainability.
- The MSE Sessional Paper No. 05 of 2020 lacks explicit measures to support innovation and technology adoption for youth and women entrepreneurs in clean energy. It fails to promote innovation hubs or incentives for adopting clean energy technologies, limiting competitiveness. Building strong market linkages and mentorship opportunities would improve business scalability and sustainability. Prioritizing capacity-building initiatives and private sector partnerships would enhance economic empowerment.
- The REAP, 2021 can empower youth and women entrepreneurs by reserving a percentage of auctioned projects for their enterprises. Implementing a preferential scoring system would encourage inclusive partnerships, while targeted capacity-building programs would enhance bidding skills and business management. Establishing mentorship networks and technical assistance hubs would bridge the experience gap. Strengthening consortium guidelines would ensure fair participation and benefit-sharing for youth and women.
- The Kenya Feed-in Tariff Policy of 2021 should integrate capacity building as a core component to enhance economic potential. Partnering with universities and private sector stakeholders for specialized training would build skills in project management and business development. Mentorship networks would link emerging entrepreneurs with industry experts. Centralized information hubs would improve access to financing and technical support, particularly in underserved areas. The policy could also introduce tiered participation models that allow smaller, community-based projects to benefit from guaranteed tariffs, thus catalysing grassroots innovation.

Case Study- Learning from Tunisia Start-up policy support

In 2018, Tunisia made a ground-breaking move by enacting the Start-up Act, a transformative legislative framework aimed at revitalizing the nation's economy through innovation and entrepreneurship. Offering a range of incentives including financial grants, tax exemptions, simplified administrative procedures, and access to foreign currency, it provides financial support to co-founders during the initial year of operations, covering living expenses with amounts ranging from 1,000 to 5,000 Tunisian Dinars per month (Hteit, 2023). Startups benefit from exemptions on capital, import, and customs taxes, reducing the financial burden during the critical early stages. The Act empowered over 900 startups to emerge, generating thousands of jobs and attracting \$179 million in investments (Sadroleslami, 2024). Notably, it introduced an entrepreneurial leave policy, allowing public and private sector employees to take up to two years off to build their ventures with job security upon return. Despite some challenges like administrative delays and limited early-stage funding, the Act has positioned Tunisia as a regional leader in fostering a dynamic start-up ecosystem, inspiring similar initiatives across Africa.

Adopted from Pinneo (2024)

Conclusion and Recommendations

To address the existing gaps and challenges faced by women and youth in the clean energy sector, it is essential to implement comprehensive and targeted policy interventions. The following recommendations are proposed.

1. Simplify Regulatory and Compliance Processes

Complex application procedures and bureaucratic hurdles often discourage aspiring entrepreneurs, particularly those from underserved communities.

- Create localized hubs at sub-county level where entrepreneurs can access information, submit applications, and receive guidance on compliance requirements. These centres (such as at huduma centres) should house dedicated support staff who assist women and youth through the procedural aspects, thereby reducing bureaucratic bottlenecks and accelerating business or project initiation.
- Provide comprehensive, easy-to-understand manuals that outline steps for obtaining necessary permits and licenses. Tailored support mechanisms should include training sessions to enhance understanding of regulatory frameworks.

2. Establish Financial Support Mechanisms

Access to finance remains one of the most significant barriers for women and youth in clean energy entrepreneurship. To address this, innovative and inclusive financial mechanisms are essential.

- Establish a dedicated fund offering low-interest loans, grants, and blended financing options specifically designed for women and youth-led projects. These funds should be easily accessible, with minimal collateral requirements and transparent application procedures.
- Encourage microfinance institutions to develop products tailored to small-scale renewable energy ventures through targeted policy interventions. Cooperative models can help communities pool resources, reducing individual financial burdens.

3. Promote Inclusive Policies and Gender Mainstreaming

Policies should be intentionally inclusive to address the unique challenges faced by women and youth in the clean energy sector.

- Develop policies that simplify business registration and compliance, particularly for women and youth. Establish inclusive decision-making platforms to ensure their perspectives are integrated.
- Integrate measurable targets for women and youth participation into policy frameworks and use data-driven approaches to evaluate progress.

4. Foster Multi-Stakeholder Partnerships

Collaboration between government agencies, private sector players, and civil society organizations is essential to create a comprehensive support ecosystem.

- Encourage partnerships that leverage technical expertise and financial resources
- Create inter-agency task forces to coordinate support mechanisms, making assistance more cohesive and impactful.

5. Enhance Market Access and Business Networks

Connecting entrepreneurs to markets and industry networks boosts visibility and competitiveness.

- Create online information portals that provide data on market opportunities and support services.
- Create platforms that connect emerging entrepreneurs with mentors and industry leaders, facilitating knowledge transfer and collaboration.

6. Integrate Green Skills into Education and Training

Include renewable energy and entrepreneurship modules in school and vocational training programs to build foundational knowledge.

- Establish hubs that provide resources for developing and commercializing new technologies, fostering innovation among youth and women entrepreneurs.
- Integrate financial literacy and business management training into existing vocational programs to equip entrepreneurs with essential skills.
- Provide mentorship to build leadership and decision-making capabilities, enhancing the confidence of women and youth in business management.

7. Implement Robust Monitoring, Evaluation, and Learning (MEL) Systems

- Implement systems that track the impact of policy interventions on women and youth in clean energy entrepreneurship. Use gender-disaggregated data to evaluate progress.

Further Reading

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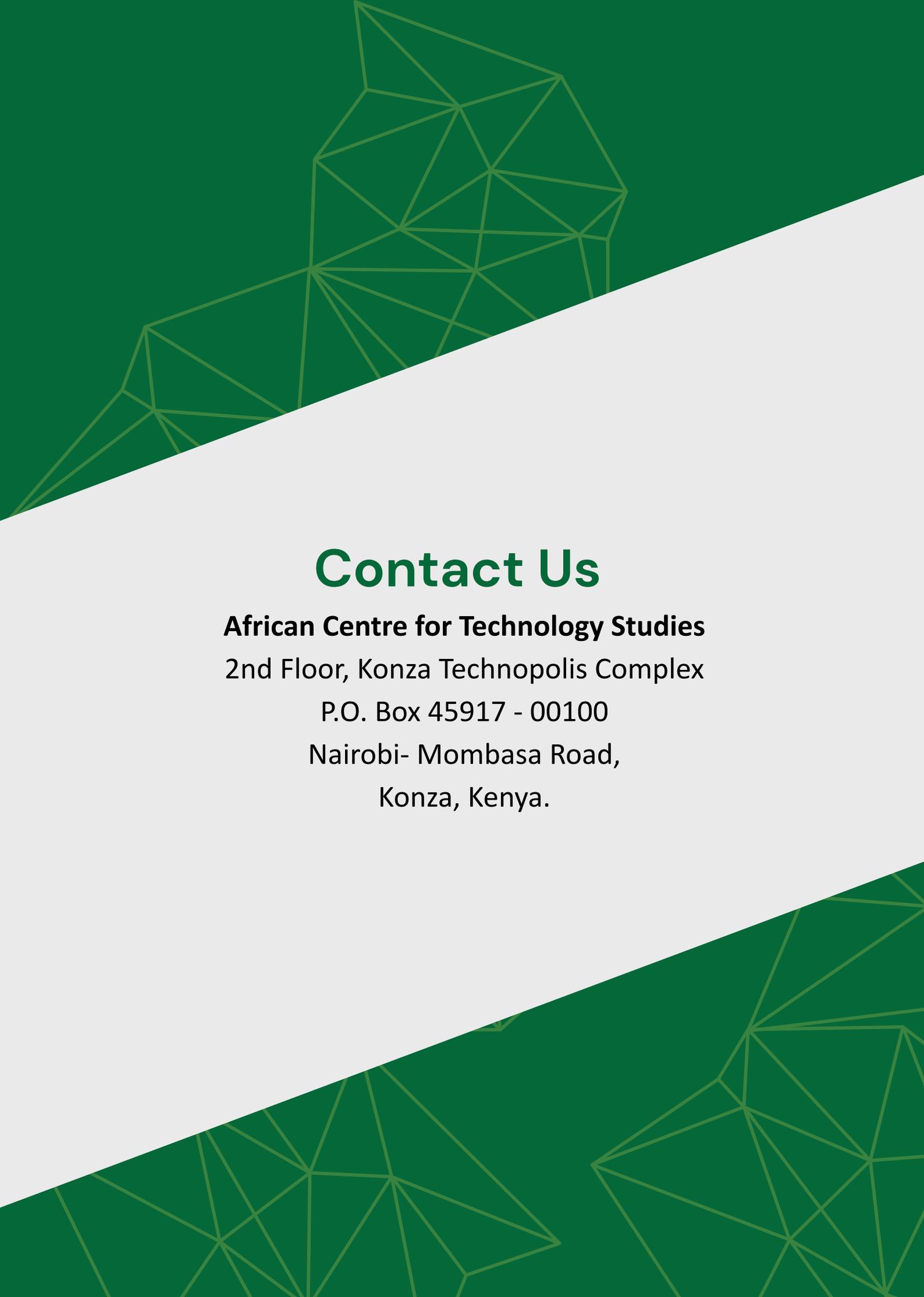
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