

EVI-SICEE RESEARCH BRIEF No. 04

Strengthening Financing Models To Scale Women and Youth-Led Clean Energy Enterprises in Kenya

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Key Messages

- Women and youth entrepreneurs remain largely excluded from mainstream financing opportunities in the clean energy sector, with only 7% of women entrepreneurs accessing formal credit in 2022, despite accounting for nearly half of all business owners.
- Intentional approach proposed to address structural barriers such as male-dominated investor networks and gender bias through regulatory reforms, gender-diverse selection panels, and targeted capacity-building for financiers.
- Blended financing models; combining grants, equity, debt, and guarantees, have proven effective but are underutilized for clean energy micro, small and medium (MSMEs) enterprises.
- Government and development partners should scale up blended finance facilities that include concessional terms, longer repayment periods, and minimal collateral requirements that are favourable for MSMEs.
- Introduce credit guarantee schemes, milestone-triggered loans, and low-collateral financial products to reduce barriers women and youth face in formal financing systems.
- Mandate sex- and age-disaggregated data reporting and enforce 45% female representation in accelerator panels and investment committees to address systemic bias in funding decisions.



Overview

Despite Kenya's advanced mobile money ecosystem and the growing use of blended finance instruments, women and youth entrepreneurs remain largely excluded from mainstream financing opportunities in the clean energy sector. Only 7% of women entrepreneurs access formal credit, even though they account for nearly half of all business owners (IFC, 2022; Plan International, 2022). Barriers such as stringent collateral demands, gender biases, short loan tenures, and limited entry into investor networks continue to undermine financial inclusion (ENERGIA, 2023). Although innovative clean energy financing models have emerged, including Pay-As-You-Go (PAYG), blended finance, and carbon credit systems, these mechanisms remain largely inaccessible to women and youth. Their design often fails to account for limited collateral, informal business structures, and gendered financial inequalities. Consequently, women entrepreneurs frequently resort to informal mechanisms such as rotating savings groups or high-interest lenders, which provide short-term relief but are insufficient for scaling clean energy enterprises sustainably. Compounding this is the lack of sex-disaggregated data on women-led enterprises, limiting the ability of financial institutions to design gender-responsive financing products. However, opportunities exist to bridge these gaps through the creation of financing instruments with flexible collateral requirements, longer repayment terms, and targeted support for idea-stage ventures, strengthening financing models with a deliberate gender and youth lens is essential to unlocking their full entrepreneurial potential in Kenya's clean energy transition.

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 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.

Assessment of How Financing Models Work For or Against Women and Youth Entrepreneurs

- Access to finance remains one of the most significant barriers for women and youth entrepreneurs in Kenya's clean energy sector. Structural challenges rooted in gender norms, unequal land tenure systems, and limited access to formal financial services

- continue to undermine their ability to secure credit and investment (Shankar et al., 2020). Women entrepreneurs often lack savings and bank accounts, while others depend on male household members to access loans (Pueyo, 2020; Bardasi et al., 2011). Limited capacity to prepare viable business proposals further constrains women's access to financing (Dewi & Wijanarka, 2023). From Murang'a County in Kenya, a respondent during one of the key informant sessions conducted by EVI-SICEE project affirmed that, "The business relies heavily on bank loans, but the high interest rates have become unbearable. It's getting harder to keep operations going under such financial strain, and I'm now looking into other alternatives."
- Most women-led enterprises rely on informal lending mechanisms such as rotating savings and credit associations, accumulating savings and credit associations, or high-interest lenders, which expose them to greater financial risks (Kariuki & Balla, 2012). Kariuki and Balla continue that these businesses are often small in scale with limited profit margins, reducing their eligibility for debt or equity financing. Additionally, women face loan rationing, high collateral requirements, limited awareness of credit schemes, and prohibitive interest rates of up to 30% for clean energy loans. Such constraints explain why women entrepreneurs remain excluded from mainstream financing sources such as commercial banks, venture capital, and angel investors, despite the availability of government grants, donor programs, and equity funding.
- For youth, the challenges are equally pronounced. Although financing opportunities exist through global mechanisms such as the Green Climate Fund, Climate Investment Funds, and national green bonds, youth entrepreneurs struggle to access these due to restrictive eligibility criteria, limited collateral, and lack of established track records (Lijfering & Ninja, 2022). Young entrepreneurs also face hurdles in securing equipment, technology, and social capital, limiting their participation in high-value clean energy markets. Hailing from Kilifi County, a youth stockist lamented "Getting a bank loan was a turning point—it gave me the financial boost I needed to expand. However, the process was tough, and the conditions were sometimes very demanding."
- EVI-SICEE project survey revealed that youth entrepreneurs in the clean energy sector experience substantial gaps in financial support, particularly in clean cooking. Among youth surveyed, 56% of those engaged in the clean cooking sector agreed that they lack access to finance. In the solar energy sector, 48% of youth echoed similar concerns. These findings highlight that young entrepreneurs, particularly those in clean cooking, feel underserved by current business support ecosystems. The slightly higher percentage among youth compared to women suggests that younger entrepreneurs may be especially vulnerable due to limited networks, experience, or capital. Addressing these gaps will require the design and implementation of youth-responsive financing programs, including flexible financing models.
- Financing models such as microloans, micro-consignments, supplier credit, and equity investment have been shown to work better for women and youth, particularly at the start-up stage (Shankar et al., 2020). For instance, micro-consignment models, where risk is borne by implementing partners, have successfully enabled women in informal settlements to engage in clean energy businesses. Similarly, equity investments help in testing business models, creating awareness, and stimulating demand, though they remain less accessible to women-led enterprises (Shankar et al., 2020).

- Government-backed capital assistance schemes and gender-inclusive financing policies can further lower these barriers (Dewi & Wijanarka, 2023; Baruah, 2015). An entrepreneur involved in clean cookstoves from Nyeri complained about challenges in servicing accrued loans saying "I was able to secure loans from both Equity and Wakulima Sacco. These loans helped cover my start-up costs, but now I must work hard to repay them while ensuring the survival of my business."
- At the broader market level, financing of clean energy enterprises in Africa has been concentrated among a few large firms, with 76% of investments directed to just 20 companies (GOGLA, 2023). In Kenya, the energy sector attracted 74.2% of all venture funding in 2023, equivalent to USD 500 million, but this was shared among only three large firms, leaving small and women/youth-led enterprises severely underserved (Disrupt Africa, 2023). Investor perceptions that smaller, early-stage businesses carry higher risks, coupled with limited entrepreneurial support structures, perpetuate this imbalance (World Bank, 2019b).
- EVI-SICEE project found out that a majority of women clean energy entrepreneurs perceive a significant lack of business support- defined as access to training, mentorship, awareness creation, and finance. This perception is especially pronounced among women working in the clean cooking sector, where 51% of respondents agreed with the statement that such support is lacking. In contrast, only 34% of women in the solar energy sector shared this view. This disparity suggests that women in clean cooking face more severe business development constraints compared to those in other sub-sectors.
- Blended financing approaches, such as combinations of grants, equity, guarantees, and technical assistance, have proven essential in de-risking early-stage companies and enabling them to scale. However, women-led businesses continue to face systemic underfunding, receiving just a fraction of equity financing compared to male-led firms (Global Accelerator Learning Initiative, 2020; IFC, 2022).
- While women make up nearly half of Kenya's entrepreneurs, only 7% have access to formal credit, and women-owned microenterprises account for 76% of the financing gap in the country (Plan International, 2022; Manwari et al., 2017). In Kakamega County, a female stockist lamented, "We are facing major challenges because government support is extremely limited. Growing a business is difficult with such a weak support system, and most of the time we're left to struggle on our own. "Another stockist dealing in electric pressure cooker reiterated, "I strongly feel that the government should improve its role in licensing. Licensing is vital for our operations, and without proper support and efficiency in this process, it becomes very hard to run legally and avoid unnecessary delays."
- Overall, financing models work against women and youth when they impose rigid collateral requirements, exclude informal businesses, or concentrate capital in a few large firms. They work for them when they leverage microfinance, blended finance, concessional loans, grants, and technical assistance tailored to the realities of women and youth entrepreneurs. A male fabricator informed narrated his side of story regarding challenges in securing financial support by acknowledging an angel investor who lifted him from scratch saying, "I was fortunate to have the constant support of Madam Zehra, the chief executive officer of EZ. Her mentorship and encouragement were priceless in the early days of my business. She believed in me when many others didn't."



Figure 1. Incubation support as prioritized by respondents

When asked about ideal forms of incubation support, most women and youth entrepreneurs during the survey prioritized financial support, mentorship, and training as essential to their growth (Figure 1).

Insights into Investment Readiness of Youth and Women Entrepreneurs in Kenya

Understanding the financing preferences, readiness gaps, and support structures available to women and youth in clean energy businesses is crucial in designing equitable business development services and investment models that match their needs and potential. The insights provided in Table 1 offer actionable entry points to reimagine investment architecture that funds and empowers, towards scaling sustainably youth- and women-led clean energy enterprises.

Table 1: Summary of insights into investment readiness of youth and women entrepreneurs in Kenya

	Status Quo	Investment Insight
1	Investment support actors offer diverse funding (grants, debt, equity), but women and youth access mostly grants due to lower risk (Anand et al., 2021; Divakaran, 2018).	Use grant-first or blended finance to de-risk early-stage ventures led by women and youth, then link them to follow-on capital.
2	Youth and women prefer low-barrier programs (grants, no equity) due to risk aversion and valuation concerns (Anand et al., 2021; Acka, 2024).	Introduce no-strings-attached catalytic capital to build trust and transition entrepreneurs into formal investment structures.
3	Most incubator content is not tailored to women-led MSMEs (timing, size, stage) (Jones et al., 2021; IFC, 2021).	Design gender-sensitive BDS modules with flexible delivery, localized content, and tailored financial literacy support.
4	Many women-led businesses rotate across incubators without scaling due to lack of access to commercial finance (Jones et al., 2021; Plan International, 2022).	Establish tiered financing pipelines that allow ventures to graduate from grants to debt/equity with milestone-based support.
5	Equity is intimidating and expensive for starters but offers long-term value and investor confidence (Divakaran, 2018; Anand et al., 2021).	Structure junior equity, revenue-based equity, or hybrid instruments to attract patient investors and empower underrepresented founders.
6	Women and local founders are underrepresented in financial decision-making platforms due to male-dominated selection panels (Jones et al., 2021).	Reform selection committees to be more gender-inclusive (e.g., ≥45% women) to improve diversity in investable pipelines.
7	Women lack access to investor networks, reducing deal flow and investment confidence (Plan International, 2022; Awuku-Asabre et al., 2021).	Invest in peer and investor matchmaking platforms for women entrepreneurs, including mentorship schemes.
8	Limited soft skills (pitching, negotiation, storytelling) constrain youth and women from engaging investors effectively (Shankar et al., 2020; Mwenda & Ondego, 2023).	Integrate investment-readiness training, focusing on communication, confidence-building, and real investor interaction.
9	Women/youth-led ventures don't qualify for rigid loans; they need working capital and flexibility (Divakaran, 2018; Acka, 2024).	Offer flexible debt tools (e.g., milestone-triggered or revenue-based financing) to meet their risk profiles and cash flow realities.
10	Many financial providers lack the gender expertise and contextual tools to prepare women for investment (Jones et al., 2021; Mwenda & Ondego, 2023).	Build the capacity of financial providers to deliver gender-smart programming, mentorship, and tailored financial tools.

Conclusion and Recommendations

To address the existing gaps and the systemic barriers in financing models targeted at women and youth in clean energy sector, policies should holistically address financial exclusion, capacity gaps, ecosystem inequities, and infrastructural mismatches. The following recommendations provide a roadmap that would inspire conversation among clean energy ecosystem stakeholders for gender responsive transformative change.

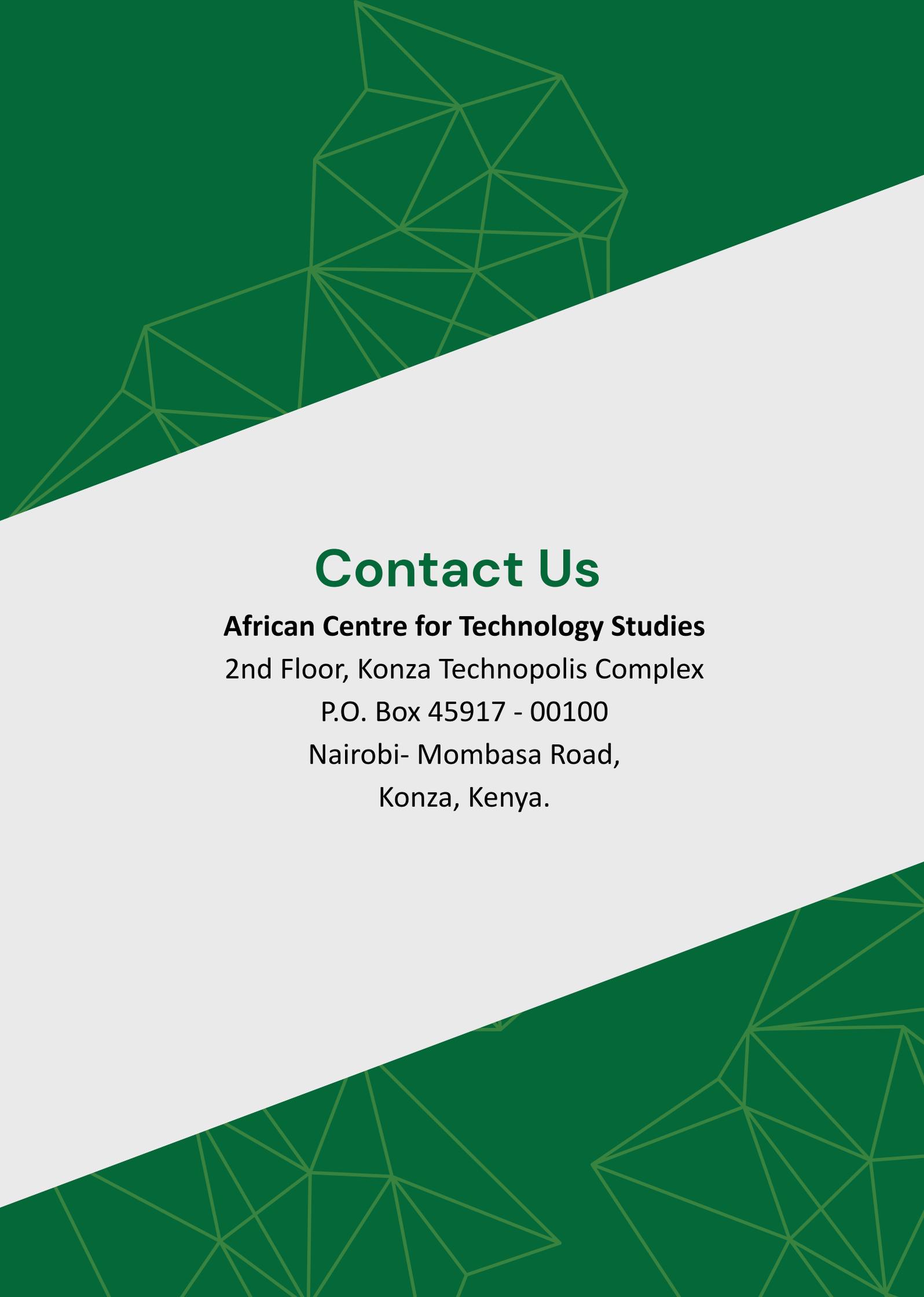
- Introduce inclusive investment quotas or mandates within public-private financing programs to ensure a portion of capital targets women and youth-owned MSMEs. This guarantees equitable access to capital and prevents concentration of resources among already dominant players.
- Enforce gender-lens investing by mandating sex- and age-disaggregated reporting and incentivizing financial institutions to develop tailored credit products and guarantees for marginalized groups. Such measures ensure visibility of financing gaps and drive accountability in inclusive capital allocation.
- Scale micro-equity, revenue-based financing, and milestone-triggered debt products specifically designed for enterprises with low collateral and irregular cash flows. These alternatives provide flexibility and reduce exclusion of businesses that cannot meet traditional collateral demands.
- Create national blended finance facilities targeting youth and women, with clear inclusion criteria and technical assistance to de-risk early-stage participation. This enables MSMEs to access financing while strengthening their business models for long-term sustainability.
- Establish inclusive investment matchmaking platforms, and women-focused investor roundtables to build relational capital and confidence. Such initiatives enhance trust, visibility, and networking opportunities between investors and underrepresented entrepreneurs.
- Require at least 45% female representation on accelerator selection panels and incentivize gender-balanced investor portfolios through tax benefits or recognition schemes. This helps shift investment culture and ensures fairer consideration of women-led enterprises.
- Promote flexible instruments such as revenue-sharing loans and deferred repayment models that align with the cash flow patterns of the mainly informal MSMEs. These instruments reduce repayment pressure and allow entrepreneurs to grow at a sustainable pace.
- Promote hybrid funding tools like convertible grants and revenue-share agreements to reduce dilution anxiety and increase investor flexibility. This approach balances risk-sharing between investors and entrepreneurs while preserving ownership rights.

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