

Research report

Getting innovative in the agri-energy ecosystem: The search for financial instruments better suited to women-led small and growing businesses in Southern and Eastern Africa

Insights from Africa Trust Group, South Africa

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Executive Summary

There is a global United States Dollar (USD) 3 trillion gap in financing for businesses that do not meet venture capital requirements nor have enough assets to meet collateral requirements of traditional lending.¹ The agriculture and clean energy sectors are hardest-hit by this gap in sub-Saharan Africa, amounting to a USD 132 billion gap.²

Agriculture is said to contribute around 23% of sub-Saharan Africa's Gross Domestic Product (GDP) with 60% of the region's population being considered to be smallholder farmers.³ The clean energy sector has a key role in economic and social development and been noted to be crucial to the industrial development of Africa and job creation.⁴ Women are the backbone of these sectors, representing between 60% and 80% of smallholder farmers and whilst the sectors are growing steadily and provide many opportunities, women are lagging behind in access to opportunities, resources and financing for growth.^{5,6}

The Project

Africa Trust Group (ATG), through an 18-month pilot project – **the Empress Pilot Fund**, with a USD 300,000-fund value – sought to contribute to address this gap in financing to women-led small and growing businesses (SGBs) in the agriculture and clean energy (agri-energy) sectors in Southern and Eastern Africa.⁷ The project sought to explore both the financial and non-financial support that was most required by women-led SGBs in the agri-energy ecosystem; how funds should be structured to best meet these requirements; and the resultant potential impact that such interventions could have in reaching low-income farmers, especially women. Through the pilot, the Empress Fund created, tested and deployed innovative financing instruments, better suited to the unique business and regional context of promising women-led SGBs in the agri-energy ecosystem. The pilot was conducted from Cape Town, South Africa and involved the surveying and screening of over 50 participants from Eastern and Southern Africa. Through the pilot, seven of the participants were funded with ticket sizes ranging from USD 15,000 to USD 50,000, utilising four different innovative revenue-based financing instruments. The choice of instrument to fund each SGB was decided based on SGBs' unique business and context.

The research

Learning from this project, ATG conducted research to investigate replicable financial and non-financial help needed to support sustainable women-led SGBs in the agri-energy ecosystem. In doing so, ATG believes that it can help build a more equitable agri-energy ecosystem for both women and men while strengthening the value chains of smallholder farmers.

The criteria for the women-led SGBs for the project was:

1. The business had to be minimum 30% women-owned
2. The business had to be 30% women-led
3. The business had to be under three years old
4. The business had to be operating in the agri-energy ecosystem in Africa

To achieve this objective, the research has **two main research questions**:

1. What is the financial and non-financial support that is most required by women-led companies in the agri-energy ecosystem in sub-Saharan Africa? How should funds be structured to best meet these requirements?
2. What is the impact or advantage of supporting women-led SGBs in the agri-energy ecosystem especially in reaching low-income women farmers?

To answer these two questions, ATG utilised a mixed method approach, involving both qualitative and quantitative methods such as desk review, survey and key informant interviewing between July and September 2022. The research analysis was also informed by ATG's experience in piloting the Empress Fund that aimed to support women-led SGBs between 2019 and 2022. A desk review included the assessment of seven companies' financial documents submitted as part of the funding application process. The majority of the interviews were conducted in person by field staff at the operating sites of each of the participants and a few conducted via a Zoom video call. Limitations to the research included the general lack of gender-disaggregated data from the agri-energy ecosystem for the regions of interest. Furthermore, the fact that the survey information as well as the interview data were self-

reported meant that there were certain elements that the women were unwilling to discuss openly such as the revenues for their businesses.

Key findings

In order to understand the support most required by women-led companies in the agri-energy ecosystem in sub-Saharan Africa, ATG explored the financial and non-financial needs and barriers faced by women-led SGBs.

Financial needs and barriers

Overall, there is a mismatch between the currently available financing instruments such as bank loans and the financial needs of SGBs in the agri-energy ecosystem, which often leads to women-led SGBs not able to access funding. Our research on the financial needs of women-led SGBs explored in particular **their knowledge of the types of funding available, the types of funding they had applied for and succeeded at accessing, and the use of funds** for the financing they needed. Understanding these aspects was essential for ATG to structure the right type of financing for applicants.

1. Entrepreneurs were generally **aware of the availability of grants, equity and debt**.
2. Entrepreneurs reported to have **self-funded their businesses before obtaining other sources of funding** such as angel funding, grant funding, personal loans, order financing facilities and awards from other projects.
3. Entrepreneurs reported **three main uses of funds**, asset purchase or extension (57%), new product or service development (29%), and working capital (14%).

The research also sought to identify the main financial barriers currently facing these businesses as access to finance is the most significant challenge facing female entrepreneurs who seek to grow their companies. Our analysis revealed that financial barriers to capital for women-led SGBs could be broken down into four main categories: misunderstanding from funders, women self-selecting out of credit market, lack of access to financial tools, and systemic biases against women-led businesses.

1. The main challenges reported with funders were **investors not understating the needs of small businesses** and requiring a certain amount of traction before making the investment; funders rejecting the application because the **business was deemed to be 'too early in the process' of development**; difficulties in finding the right kind of equity investor that **understood the business and could add value beyond the money**; and an **unwillingness to part with equity** on the part of the SGBs.
2. Research revealed that the **lack of understanding of financial products, lengthy due diligence processes, prohibitive interest rates and outstanding, often personal loans** prevented female entrepreneurs from accessing, or even pursuing credit. Furthermore, it appears that the majority of women show a **stronger preference for grant funding over loans and equity**.
3. Our research found that **complex financial products** including low-product differentiation and **tedious assessment and due diligence processes** inhibited women-led SGBs from accessing financial products.
4. Finally, research found that **systemic biases** such as products only being available to larger companies, higher risk perception towards businesses in the agri-energy ecosystem and claims of an insufficient pipeline of women-led SGBs in the agri-energy ecosystem inhibit their ability to access formal financial services.

Non-financial needs and barriers

In addition to the financial needs and barriers outlined above, ATG explored the non-financial needs and barriers faced by women-led SGBs as the vast majority of entrepreneurs (95%) reported the need of non-financial business support in addition to financial investment. Our research revealed some **common areas of non-financing needs** at the different stages of the businesses: **access to personal and professional development training** (as the most sought after), followed by **access to markets, access to business capacity building**, and finally **subsidised support services**.

In terms of the non-financial barriers experienced by women-led SGBs, our findings can be summarised in four main categories: access to education, legal restrictions, financial literacy and societal bias.

1. There is a persistent **gender gap in access to education**, which leads to girls and women being continuously disadvantaged in accessing education and training opportunities compared to boys and men.
2. **Discrimination against women is present in legislations** across Eastern and Southern Africa, in terms of property ownership, inheritance, land ownership, land management and economic rights.
3. **Poor financial literacy** is also observed among women-led SGBs compared to their male counterparts and is a contributing factor to a lower access to financial products.
4. Finally, **social and cultural norms**, such as patriarchal societal structures, have been noted to negatively impact women's ability, and to some extent, their desire to access capital.

Whilst the financial and non-financial needs and barriers faced by women-led SGBs in sub-Saharan Africa are similar across sectors with disproportionately less funding going to them overall, of particular uniqueness to the women-led SGBs in agri-energy is that they tend to be rural-based and fall **at the intersection of gender biases and regional or sector-specific biases**. This leads to women-led SGBs in agri-energy facing many 'double negatives'; being perceived as a disproportionately higher risk than other women-led SGBs; and consequently perceived to need more support.

Change ideas and lessons learned under the Empress Pilot Fund

In order to answer the question of how funds should be structured to best meet the above needs and barriers, ATG discusses three changes applied under the ongoing Empress Pilot Fund, including the provision of personal development and business support services, reformed application and due diligence processes and alternative financial instruments, to help women grow their businesses.

1. **The first change was the provision of personal development and business support services.** Support was broken down into three key stages:
 - a. **Pre-investment support** was focused on enabling the entrepreneurs to become investor-ready and included training programmes such as preparation of pitch decks.
 - b. **Support during the investment process** focused on finding the entrepreneur support organisations (ESOs) to partner with, training the ESOs on the application and due-diligence process, supporting the entrepreneur to get onboarded once the requirements were met, and documenting key metrics for impact measurement pre- and post-investment.
 - c. **Post-investment**, the portfolio manager remained a key contact point for the entrepreneurs providing them with support including capacity building, connecting the entrepreneurs to key networks and arranging personal and professional development retreats for the portfolio of companies that were funded.
2. **The second change idea was to reform the due diligence and application process**, as the research indicated that the due diligence process had been a major hurdle for women applying for funding. The pilot approached this in two ways:
 - a. **by minimising the requirements for application**, requiring only basic demographic information about the applicant, the business and the funding requirements, and
 - b. **by digitising the due diligence and application process.**
3. **The third change idea was to provide revenue-based non-asset backed financing** by creating and testing four financing instruments better suited to the women-led SGBs' unique context and needs. The **six main aims and features of the instruments** were:
 1. to have no requirements for assets as collateral,
 2. to provide catalytic funding,
 3. to be suited to business need and model,
 4. to require a smaller investment amount,
 5. to provide a lighter application and due diligence process, and
 6. to be open to co-founder participation.

While the Empress Pilot Fund is still ongoing, the funding has shown relative success with the following key lessons documented to date: **1)** the need for training on alternative financing; **2)** the need to match business model to product; **3)** the need to test in markets with enabling financial environments, and **4)** the need to ease friction and provide additional support services.

Impact of supporting women-led SGBs in the agri-energy ecosystem

The impact of supporting these companies could lead to better sustainable businesses that can grow to their fullest potential and provide economic and social returns. It might also have significant positive impacts on their families including better access to health, education and technology. Additionally, such impact could translate to their wider communities' improvements through creating direct and indirect jobs and enabling value chains that can support low-income farmers, especially women farmers.

1. Implementing the change ideas has generated **positive economic impacts** for the women-led SGBs, such as the ability to purchase assets that have increased revenues, with some reporting up to 6 times growth in revenue. Additionally, the women-led SGBs were able to launch new product and service lines as well as expand into new markets.
2. It has also generated **positive social impacts**, such as an increased ability to create jobs directly and indirectly resulting in over 300 jobs being created. Consequently, through the new jobs that were created, more than 3,500 livelihoods were improved in their communities.
3. Although unplanned for in our initial impact targets, there were also **positive environment impacts** that were generated such as the implementation of more sustainable farming methods and the application of more sustainable energy sources for over 10,000 people in rural areas.
4. Last but not least, implementing the change ideas has produced **cascading effects on low-income farmers, most especially women**, within the value chains and communities of the women-led SGBs such as indirect job creation through value chains created and onboarding of additional low-income farmers into food aggregation programmes. Furthermore it resulted in increased training and knowledge for close to 500 low-income farmers through expanded training programmes and incubation provided by the women-led SGBs.¹

Conclusion and recommendations for scaling

Based on the above lessons and the findings from the pilot, there is still room for creating and testing more alternative financing instruments that are better suited to the unique context of women-led SGBs in agri-energy in sub-Saharan Africa. This will require markets that have enabling environments for innovation of financial services to allow for such experimentation. Markets with high regulatory barriers, such as strict exchange control and intellectual property registration, that could impact the ability to test and deploy such instruments. Efforts to scale such alternative instruments beyond testing will also require financial institutions to implement a multi-pronged approach that includes elements of training, capacity building and easing the friction in application and due diligence processes to make them more accessible for women-led SGBs. There appears to be appetite for more innovating financing solutions better suited to the unique businesses and contexts of women-led SGBs in the agri-energy ecosystem, and such interventions will have to go hand in hand with the provision of non-financial support in order to become replicable and potentially scalable.

The agri-energy ecosystem holds a huge opportunity for economic and social development on the continent, and with the majority of the workforce being made up of women, it would be a missed opportunity for African and non-African investors to ignore the opportunity of funding women-led SGBs in the ecosystem. Financing SGBs can not only contribute to fast tracking the sector's growth and its social and economic impact but also to diversifying investment portfolios.

¹ The detailed impact and performance report is provided in Annex 4.

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List of abbreviations

ATG	Africa Trust Group
DRC	Democratic Republic of Congo
ESO	Entrepreneur Support Organisation
FCDO	UK Government Foreign Commonwealth and Development Office
GDP	Gross Domestic Product
GLI	Gender-Lens Investment
RBF	Revenue-Based Financing
SGB	Small and Growing Business
SF	Shell Foundation
USD	United States Dollar

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Special thanks are also due to the key stakeholders, the women entrepreneurs that participated in the research, who provided their valuable insights and time to this research.

1 Introduction

The agriculture sector is said to contribute to around 23% of sub-Saharan Africa's Gross Domestic Product (GDP) with 60% of the region's population considered to be smallholder farmers.⁸ Of these smallholder farmers, women represent between 60% and 80% of the workforce.⁹ This is because in Africa, women have been traditionally responsible for food production, preparation and processing of food.¹⁰ Renewable energy has been noted to have the potential to offer African economies significant economic growth, industrial development, as well as job creation and thus, is seen to be key to the future of Africa.¹¹ The agriculture sector has a double role of being an energy user as well as a potential energy supplier in the form of bio energy.¹²

Sub-Saharan Africa is the global leader in terms of the number of female entrepreneurs, with African women being noted to be more likely than men to become entrepreneurs and making up 58% of the continent's self-employed population.¹³ However, the region loses an average of United States Dollar (USD) 95 billion of productivity each year, due to the exclusion of women from taking part fully in the economies.¹⁴ Female entrepreneurs have been found to earn up to 34% lower profit on average than men. Moreover, only half of female self-employed entrepreneurs go on building established businesses.

Major barriers to growth of women-led small and growing businesses (SGBs) in the agri-energy ecosystem in sub-Saharan Africa include the inequality in accessing land and capital, gaining essential business skills, facing discriminatory laws and cultural norms.^{15,16,17,18} For example, less than 3% of venture capital funding of the USD 4 billion invested into African start-ups has gone to women-founded teams thus far in 2022 and only 16% to gender diverse founding teams.¹⁹ Moreover, many existing financial services products being misaligned to the needs of women-led SGBs in the industry, including but not limited to investment amounts being too large; lack of understanding of seasonality; and high requirements before and post-investment.²⁰ This has resulted in calls for improved access to capital, asset financing and alternative financing instruments better suited to women led SGBs to enable their growth.^{21,22}

[Africa Trust Group](#) (ATG) is a holistic gender-lens investment (GLI) and research firm that is focused on accelerating investment into women-led SGBs and start-ups in Africa. It was established in July 2019 in Cape Town, South Africa and is a majority women-led and -owned firm. ATG provides end-to-end support for women entrepreneurs from investor readiness to investment and post investment business growth support. The company's mission is to drive economic growth and development on the African continent through investing in the growth of women-led SGBs and start-ups in Africa and contribute to the economic transformation of individuals, communities and regional economies.

ATG defines women-led SGBs as:

1. Businesses with minimum of 30% female ownership and/or leadership
2. Businesses that are women-enabling and/or create value chains for women
3. Businesses that are doing annualised revenues of USD 50,000 or less

ATG manages two funds (including the Empress Pilot Fund) that invest in women-led SGBs at different stages of their growth, as summarised in [Table 1](#) below.

Table 1. Description of ATG's funds

Fund name	Enygma Fund	Empress Pilot Fund
Fund size	USD 10 million	USD 300,000
Funded by	Single-family office	Angels and philanthropy
Stage of investment	Seed stage	Pre-seed stage
Investment instrument	Equity and loans	Equity and revenue-based
Investment ticket size	USD 250,000 to USD 1 million	USD 10,000 to USD 50,000

Our past research also supported findings on challenges facing women-led SGBs. Moreover, our experience working with the businesses in the sector indicated that traditional loans and equity have significant shortfalls in terms of serving women-led SGBs in agri-energy and more broadly. To contribute to addressing this challenge, ATG worked with Shell Foundation (SF) to pilot a funding mechanism to support SGBs. The **Empress Pilot Fund** was established in 2019 with the funding from the UK Government's Foreign, Commonwealth and Development Office (FCDO) as a pilot to design and test four innovative revenue-based financing (RBF) instruments that were believed to be better suited to the context of women-led SGBs in the agri-energy ecosystem. The instruments were more aligned with the needs of female entrepreneurs in the ecosystem who are often perceived as a 'high risk' by available traditional instruments because their businesses tend to have an element of seasonality which may be unpredictable and thus leads to limited access to financing.

The remainder of the report is structured as follows. **Section 2** will outline the research questions and methodology including the approach to data analysis and limitations. **Section 3** will explore the environment for women-led SGBs in the agri-energy ecosystem in Eastern and Southern Africa, specifically focusing on the available financing mechanisms and the financial and non-financial needs and barriers facing female entrepreneurs seeking to grow their businesses. **Section 4** will propose three change ideas based on learning from the Empress Pilot Fund, including the provision of personal development and business support services, reformed application and due diligence processes and alternative financial instruments, to help women grow their businesses, and outline lessons learned so far. **Section 5** will examine the economic, social and environmental impact of supporting women-led SGBs including the impact on low-income farmers. Finally, **Section 6** will share concluding thoughts on the pathway to scaling the alternative financing instruments.

2 The Research

2.1 Research Questions

Learning from implementing these innovative funding mechanisms, ATG puts together this report to answer two questions, namely:

1. What is the financial and non-financial support that is most required by women-led companies in the agri-energy ecosystem in sub-Saharan Africa? How should funds be structured to best meet these requirements?
2. What is the impact or advantage of supporting women-led SGBs in the agri-energy ecosystem especially in reaching low-income women farmers?

Answering these questions is important because there was already a lot of generic research on women entrepreneurs without many studies focusing on the agri-energy ecosystem. ATG believes that answering these two questions can further its learning on alternative financial instruments for women-led SGBs in the agri-energy ecosystem that is fast growing and creates multiple opportunities for women entrepreneurs. In doing so, ATG believes that it can help build a more equitable agri-energy ecosystem for both women and men while strengthening the value chains of smallholder farmers.

2.2 Research Methodology

To answer these two questions, ATG utilised a mixed methods approach, involving both qualitative and quantitative methods.

Desk research

ATG conducted literature reviews and on-line research of sites and white papers. The review was aimed to provide data on the current state of funding for women entrepreneurs in the regions of interest, as well as to glean high-level themes of challenges that women in the agri-energy ecosystem were experiencing overall. The knowledge gained from the desk research informed our survey and interview questions.

Survey

We developed an application process for SGBs to complete in order to potentially gain access to funding from our Empress Pilot Fund, which funds tickets sizes of between USD 10,000 and USD 50,000. This

application process was established in advance of funds being raised for the Empress Pilot Fund and ran from April 2019 to July 2022, covering various sectors. We utilised the data from this survey to gain an understanding of the business needs of women-led SGBs in sub-Saharan Africa. The full survey questions can be viewed in [Annex 1](#).

Whilst our survey did not capture the number of employees for each business respondent, it captured the age of the business.²³ We used the five-year mark as a proxy and cut-off for being categorised as a small business.²⁴ The data is both qualitative and quantitative and included basic demographic information of respondents, including sex, sector, stage and size of business as well as location (see [Annex 1](#)).

Additionally, in order to examine specific needs for the agri-energy ecosystem we filtered out the responses from the survey that were specific to the sector. This was to enable us to analyse trends in needs that were specific to the sector. This resulted in **55 respondents (all female)** being filtered out as being from the agri-energy ecosystem and [Figure 1, Annex 2](#) shows a summary of the split of ages of businesses. At least 64% of the businesses had been in business for under three years, 31% were not yet established and only 5% were between three and four years old. List of countries where the respondents come from can be found in [Annex 2](#).

The countries covered and how many participants there were from each country are summarised in [Table 4, Annex 2](#). Out of 55 participants, 53 were from 17 countries in sub-Saharan Africa and two were African diaspora entrepreneurs living in the UK.

Interview

To supplement the survey data, we undertook detailed interviews with **seven participants** from Kenya, South Africa, Lesotho and Zambia between July and September 2022. We used this qualitative data to gain more information on financing needs for women-led SGBs in the agri-energy ecosystem and the potential impact of such financing. The choice of regions was based on the regions that our current investment mandate covers. The interview questions were mostly open-ended to allow participants to freely share their experiences and in line with our inductive approach rather than following pre-set categories (see [Annex 3](#)). The majority of the interviews were conducted in person by field staff at the operating sites of each of the participants and a few conducted via a Zoom video call.

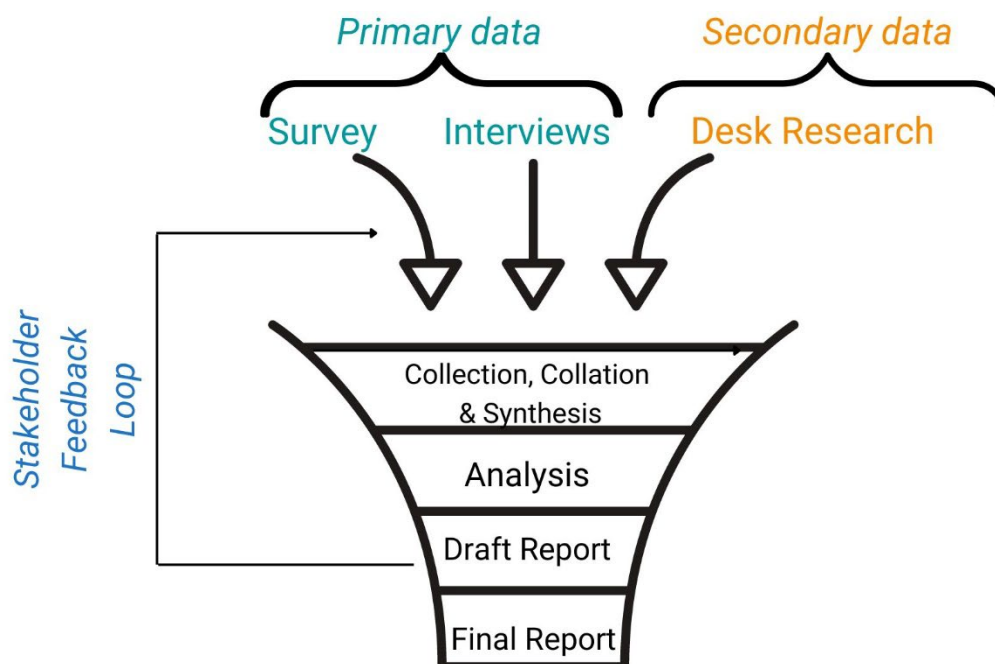
2.3 Data Analysis

The data collected from the various sources was collated and synthesised to draw inferences that answer the research questions. Themes from the filtered survey data were analysed against the desk research data. Interview questions were then created to provide more in-depth insights of the challenges faced by women-led SGBs in the sector and the support required by them.

Detailed notes were taken of each interview and open coding was utilised to get familiar with each story on its own, allowing for patterns to emerge. Interpretation of the interview data was done without the use of pre-defined schema in order to get as many themes and categories as possible. The data was organised using a central data management spreadsheet. [Figure 2](#) is a summary of the data collection and analysis approach, showing our reiterative process to analysis.

Additionally, we analysed impact of supporting women-led SGBs through the review of financial documents to investigate enterprise performance and looking at other impact and growth metrics such as number of jobs created and livelihood impacted, as guided by the impact and performance dashboard provided by the SF which is detailed in [Annex 4](#). The financial documents that were reviewed were financial statements and forecasts submitted by companies as part of the funding application process. The metrics used for this research were based on discussions and reporting documents submitted by companies during monthly meetings between them and ATG. As part of this research, ATG did a deep-dive review of the financial documents of seven companies.

Figure 2: Analysis approach



2.4 Limitations

Limitations to the research included the general lack of gender-disaggregated data from the agri-energy ecosystem for the regions of interest. Furthermore, the fact that the survey information as well as the interview data were self-reported meant that there were certain elements that women were unwilling to discuss openly, such as the revenues for their businesses. Thus, there was a need to utilise other data such as number of years in the business and/or number of employees to approximate the size of the business. Other constraints included a limited budget to visit all sites of the seven interview respondents which resulted in some participants being interviewed by Zoom, which further limited the amount of time we had with each of them.

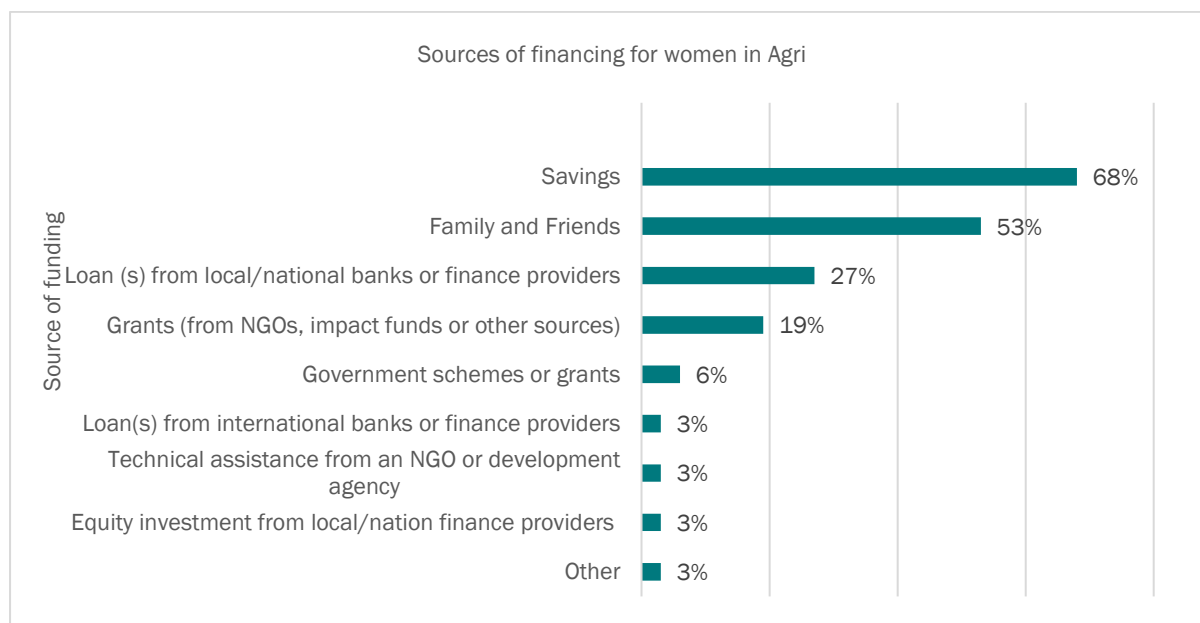
3 Available Financing Mechanisms for Women-led SGBs

This section explores the financing mechanisms currently available to women-led SGBs in the agri-energy ecosystem, focusing on the financial and non-financial needs and barriers facing female entrepreneurs seeking to grow their businesses.

3.1 Financing Instruments Available for Women-led SGBs

There is a mismatch between the currently available financing instruments and the needs of SGBs in the agri-energy ecosystem.²⁵ This often results in funding not potentially reaching women-led SGBs in the agri-energy ecosystem. The main source of institutional funding that appeared to be available to women-led agribusinesses was **bank loans**. However, according to Rallying Cry, who conducted a survey of 65 women-led agribusinesses, only 27% of respondents accessed them.²⁶ The majority of women-led SGBs used **personal sources of funding** to kick-start their businesses, utilising either savings (68%) and/or receiving funding from family and friends (53%).²⁷ **Figure 3** provides a breakdown of the available sources of funding.

Figure 3. Sources of financing for women in agriculture (The Rallying Cry, 2021)



Every source of funding has been noted to have various advantages and disadvantages and it is the job of the entrepreneur to educate themselves and weigh these in order to make the right decision for the funding that best suits their business needs and context.²⁸ **Table 6, Annex 5** provides a brief analysis of the various sources of funding available to women-led SGBs in Africa and some of their advantages and disadvantages.

3.2 Financial Needs and Barriers to Access to Finance

Our research on the financial needs of women-led SGBs in the agri-energy ecosystem explored their knowledge of the types of funding available, the types of funding they had applied for and succeeded at accessing, and the use of funds for the financing they needed. Following is a more detailed outline of findings from the key informant interviews undertaken with seven women-led SGBs on their financing history and needs.

3.2.1 Financial needs

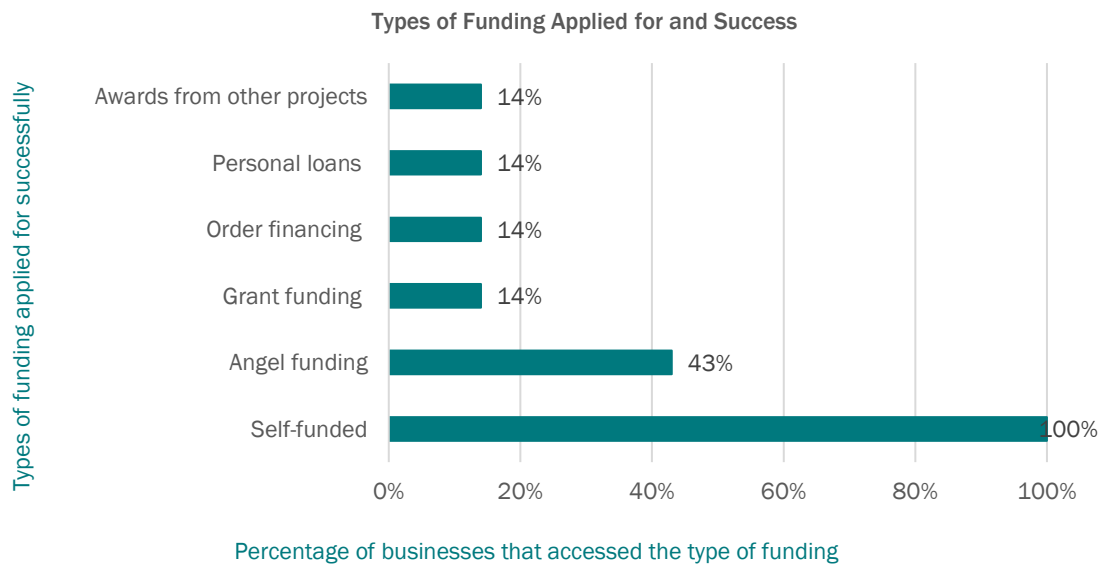
Knowledge on types of funding

With respect to the knowledge of sources of funding that were available, all seven participants were **aware of the availability of grants, equity and debt**. Only one participant indicated knowledge of crowdfunding whilst another informant mentioned the availability of hybrid types of instruments that incorporated elements of debt and equity. ATG finds that knowledge of different types of funding made it easier to dive into deeper conversations around financing with the entrepreneurs, which may be useful for ATG to help them in the future to identify suitable sources of funding for their businesses.

Type of funding

All the women interviewed reported to have first **self-funded their businesses before obtaining other sources of funding**. Other additional sources of funding they had managed to secure in the past included angel funding, grant funding, personal loans, order financing facilities, and awards from other projects. It was important for ATG to learn about the different types of funding the women had applied to in the past as this was helpful in structuring the right type of financing that applicants needed for future use. **Figure 4** provides a breakdown on the types of funding accessed by the businesses.

Figure 4. Types of funding applied for successfully by women in the agri-energy ecosystem

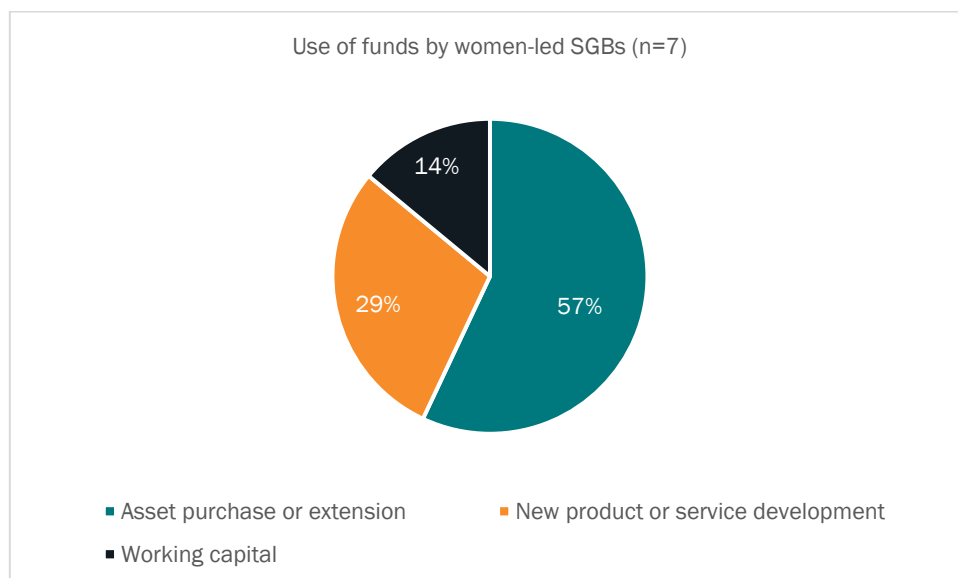


Use of funds

When it came to what they needed funding for, **the majority of women-led SGBs (57%) used the funds for asset purchase extension**, followed by new product or service development (29%) and working capital (14%). Below is the breakdown of potential use of funds indicated by the entrepreneurs, as part of the monthly meetings during the post-investment support.

As mentioned above, it is important to know the use of the funds so that the right type of financing that is needed can be identified. For example, in the case of obtaining working capital, where SGBs could have anywhere between a 60–120 day-lag between supplier payments versus their monthly expenses, it is more beneficial for entrepreneurs to access funding they could pay off quickly rather than get a long-term loan from a bank which usually takes up to five years to pay off.²⁹ **Figure 5** provides a breakdown of the potential use of funds as reported by women-led SGBs.

Figure 5. Breakdown of potential use of funds indicated by women-led SGBs in agri-energy



3.2.2 Financial barriers

At the same time as identifying the financial needs of women-led SGBs, the research also sought to identify the main financial barriers currently facing these businesses in order to provide the most effective support possible. We conducted interviews with female entrepreneurs in Southern and

Eastern Africa, which was designed to understand their barriers to growth. Overall, **access to finance is the most significant challenge facing female entrepreneurs** who seek to grow their businesses, with most of them self-funding as a result.³⁰ Our analysis revealed that financial barriers to capital for women-led SGBs could be broken down into four main categories: misunderstanding from funders, women self-selecting out of credit market, lack of access to financial tools, and systemic biases against women led businesses.

Misunderstanding from funders

The main challenges that were reported to have been encountered in access to other sources of funding included:

- **Investors not understanding the needs of small businesses** and requiring a certain amount of traction before making the investment;
- Funders rejecting the application because **the business was deemed to be ‘too early in the process’ of development**;
- **Difficulties in finding the right kind of equity investor** that understood the business and could add value beyond the money;
- **An unwillingness to part with equity** on the part of the SGBs.

These findings are in line with previous research that found an apparent lack of capacity and technical expertise by financial service providers to provide products suited to the agribusiness sector.^{31,32} Other barriers identified in this research are outlined below.

Women self-selecting out of the credit market

On the demand side, research revealed that **the lack of understanding of financial products, lengthy due diligence processes, prohibitive interest rates and outstanding, often personal loans** prevented female entrepreneurs from accessing, or even pursuing capital.³³ It revealed that several female entrepreneurs claimed that they were “not ready yet” when being asked about pursuing external financing for growth.³⁴ A study of women entrepreneurs in agribusinesses further revealed that the vast majority of respondents showed **a stronger preference for grant funding over loans and equity**.³⁵ Recent, post-pandemic research has pointed to women-led SGBs being reluctant to access traditional forms of capital such as loans (banks and microfinance) due to unfavourable terms.³⁶ An enterprise mapping survey of 101 women-led agri-businesses conducted by the Rallying Cry between 2021 and 2022 also reported that the respondents showed a preference for grants or equity over debt-based finance, particularly post pandemic.³⁷ Finally, a 2021 survey of 172 entrepreneurs across Africa found that female founders were more likely to seek a bank loan or use retained earnings to grow their business rather than use equity, as they may feel less confident in pitching their business to investors and less willing to share ownership.³⁸

Lack of access to financial tools

Furthermore, our research found that **complex financial products, including low-product differentiation and tedious assessment and due diligence processes inhibited women-led SGBs from accessing financial products**.^{39,40} Both constraints have the potential to inhibit women from accessing formal financial services as they often lack the financial tools such as online calculators to help them make comparisons between financial products or financial education websites to assess the available options and make informed decisions.

Systemic biases

Finally, our research found that several systemic biases exist that inhibit the ability of women-led SGBs in the agri-energy ecosystem from accessing formal financial services. These include but are not limited to **products only being available to larger companies** (with minimum loan amounts often being bigger than what the women-led SGBs needed); **higher risk perception towards businesses in the agri-energy ecosystem** (potentially due to elements of seasonality and climate changes); and **claims of an insufficient pipeline of women-led SGBs in the agri-energy ecosystem**.⁴¹

3.3 Non-financial Needs and Barriers to Access to Finance

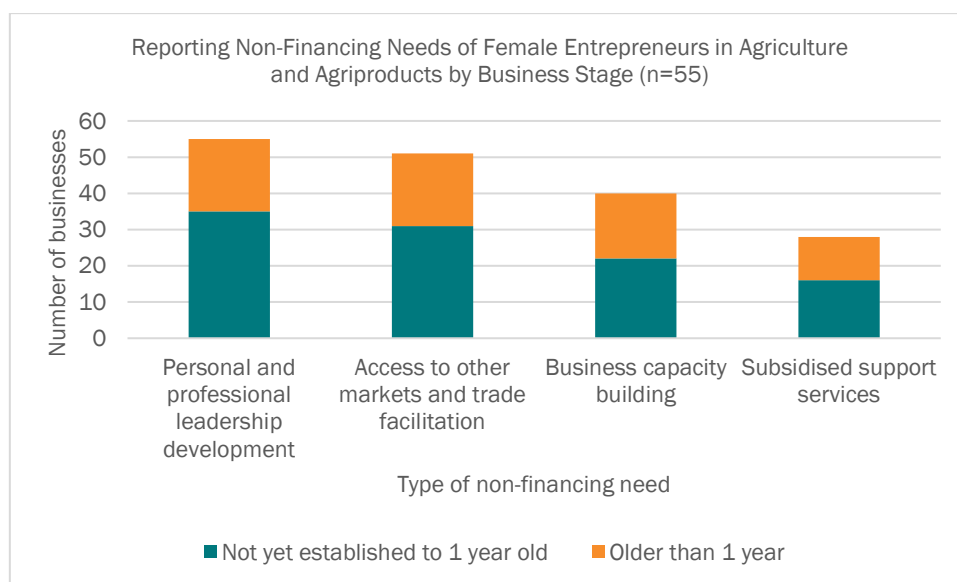
Having explored the financial needs and barriers of women-led SGBs, we now turn to the non-financial needs and barriers they may face in accessing finance.

3.3.1 Non-financial needs

Our research revealed common areas of non-financing needs at the different stages of the businesses: **access to personal and professional development training, access to markets, access to business capacity building and subsidised support services.**

The survey asked respondents about their non-financial needs to support their businesses. This revealed that 95% of respondents **required non-financial business support in addition to financial investment**, with only three respondents out of 55 indicating they only needed financial investment. The survey revealed that at least 83% of the respondents required more than one of the non-financial support, with ‘Personal and professional leadership development’ being the most sought after non-financial support standing at almost 100% of respondents. ‘Access to markets’ was the second most sought after non-financial support required (91% of respondents), whilst ‘Business capacity building’ was third (69%). **Figure 6** provides a summary of business needs broken down by age of business and **Box 1** of the types of non-financial support required.

Figure 6: Reported non-financing needs of women-led SGBs in agri-energy by business age



Box 1: Types of non-financial support required

When asked about the types of non-financial support required, the participants alluded to the following: support with investor readiness and putting together a pitch deck and business plan; business capacity building training; support putting together the documentation required for due diligence; asset purchase or extension; and business support services like accounting and building forecasts and cashflows.

For post-investment support, the women-led SGBs indicated the following: an investor who provides a listening ear and can make time for monthly check-ins; increased access to markets; access to additional funding; business capacity building (e.g., assistance with managing operations); and business support services (e.g., marketing, sales and strategy). building.

3.3.2 Non-financial barriers

Similarly to the financial needs and barriers identified, the research sought to identify the main non-financial barriers in addition to the non-financial needs in order to be able to provide the most effective support possible. Based on a review of existing literature, we found several non-financial barriers experienced by women-led SGBs while accessing finance for their businesses. These can be summarised under four main categories: **access to education; financial literacy; societal bias; and legal restrictions.**

Gender gap in access to education

Increasing educational attainment is paramount for tackling financial exclusion for women but a gender gap in access to education remains. Women with higher education were found to start their businesses with a higher capital.⁴² Research also shows that educated female entrepreneurs have wider networks, higher ambitions for their businesses and are better able to identify opportunities than their counterparts who have less opportunity to education.⁴³ However, although the gender gap for basic education has shrunk significantly across the African continent, African girls and women continue to be disadvantaged in access to education and training.⁴⁴ In Sub-Saharan Africa for example, girls continue to be less likely to complete secondary education than boys.^{45,46}

Legal restrictions

Discrimination against women is present in legislations across countries in Eastern and Southern Africa in terms of property ownership, inheritance, land ownership, land management and economic rights, which are seen as major barriers to access to capital for women across these regions.^{47,48} For example, a study, covering 141 countries, discovered that in countries where laws and norms discriminate more heavily against women, women were more likely to be excluded from the formal financial sector.⁴⁹ In 2011, 75% of Sub-Saharan African countries did not grant equal capacity under the law to women and men.⁵⁰ Land rights, including the right to land ownership and the right to manage and derive economic benefit from land, is one of the areas of law where women are not granted equal access.⁵¹ This results in women being less likely to have the collateral required to access traditional loans.

Lack of financial literacy

Poor financial literacy amongst women-led SGBs compared to their male counterparts is observed as a factor contributing to a lower access to financial products. Many female entrepreneurs and women-led SGBs lack the knowledge of financial products and their availability and the appropriate funding for their business.^{52,53,54} Yet, women entrepreneurs who are trained in financial literacy are more likely to access external funding sources.⁵⁵

Gender-related societal bias

Finally, social and cultural norms, such as patriarchal societal structures, have been noted to negatively impact women's ability, and to some extent, their desire to access capital.⁵⁶ Patriarchal societies shape how female entrepreneurs view themselves, their abilities and their aspirations and can lead to discriminatory treatment by others.⁵⁷ Research found that female entrepreneurs are expected to both contribute to household finances and fulfil their roles as wives and mothers.⁵⁸

3.3.3 Barriers unique to women-led SGBs in agri-energy

Whilst the financial and non-financial needs and barriers faced by women-led SGBs in sub-Saharan Africa are similar across sectors with disproportionately less funding going to them overall, **of particular uniqueness to the women-led SGBs in agri-energy is that they tend to be rural-based and fall at the intersection of gender biases and regional or sector-specific biases.** This leads to women-led SGBs in agri-energy facing many 'double negatives'; being perceived as a disproportionately higher risk than other women-led SGBs; and consequently perceived to need more support. **Table 2** highlights some of the double negatives that impact women-led SGBs in agri-energy.

Table 2. Barriers faced by women-led SGBs

Agri-energy Sector Barriers	Gender-Specific Barriers
Agri-energy SGBs tend to be located in rural areas, with fewer financial service providers	Rural women have less access to technology to access information and other services
Agri-energy SGBs are perceived to be higher risk due to seasonality and climate change	Rural women tend to be less educated than urban women thus being perceived as higher risk
Agri-energy SGBs in Africa are still highly dependent on traditional farming methods and thus tend to be smaller and perceived as riskier	Rural women tend to face higher cultural and social norm barriers and patriarchal structures further limiting access/ownership of resources

4 Needed Support to Women-Led SGBs

With knowledge from the desk research and experience gained from implementing the Empress Pilot Fund – and having examined the current landscape of available financings, needs and barriers to women-led SGBs accessing capital – this section discusses three changes applied under the Empress Pilot Fund, including **the provision of personal development and business support services, reformed application and due diligence processes and alternative financial instruments**, to help women grow their businesses. It also lists the lessons learned so far.

4.1 Removing the Barriers – Learning from the Empress Pilot Fund

We used the findings discussed in Section 3 to develop a strategy to remove the barriers to women-led SGBs in the Empress Pilot Fund. This strategy has been tested under the pilot (see **Box 2**).

Box 2: Empress Pilot Fund strategy and vision

The Empress Pilot Fund was established in 2020 with funding from FCDO as a pilot to design and test four innovative RBF instruments. Its aim was to fund seven participants using the four different financing instruments in order to test if these instruments are better suited to the unique business and regional context of promising women-led SGBs in the agri-energy ecosystem. The pilot project was conducted from Cape Town, South Africa and involved over 50 participants from sub-Saharan Africa.

The longer-term vision for the Empress Pilot Fund is to level the playing field for women-led SGBs in Africa in critical sectors such as agri, energy and climate. This will be done by providing them access to finance through the development of scalable, innovative financing instruments better suited to their context. ATG plans to move the project from pilot to a full-fledged pan-African gender-lens fund with a targeted USD 30m-fund size by 2025.

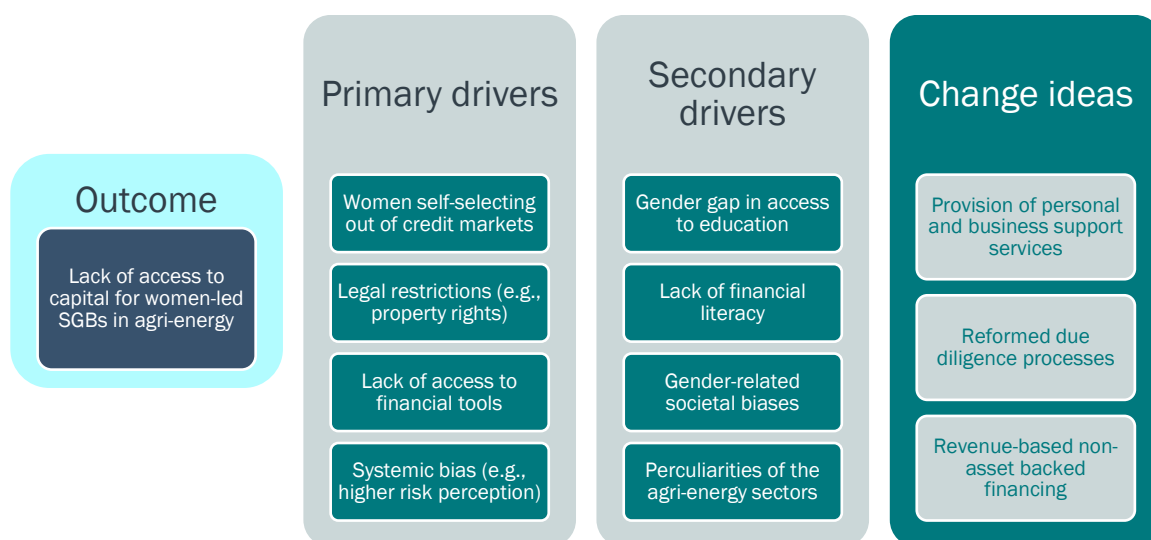
Table 3 provides a detailed breakdown for the four instruments that were created and tested for the Empress Pilot Fund.

Table 3 Alternative instruments developed for the Empress Pilot Fund

Alternative instrument	Use of funds	Term	Expected returns	Added elements	Benefit for entrepreneur	Benefit for investor
Opportunity-based financing	Asset purchase or to pursue and take advantage of a clear growth opportunity	4 years	2 X	6-month moratorium and modelled to seasonality	The entrepreneur has a clear repayment schedule and gets to keep ownership of their business.	Less rigorous due diligence making it more cost-effective for investors with a smaller investment amount
Drawdown account	Working capital management, based on revenue cycles	12 months	30% annum	per 6-month moratorium and modelled to supplier payment cycles	The entrepreneur only pays interest on the amount outstanding rather than the full facility and get to keep ownership of their business.	Less rigorous due diligence making it more cost-effective for investors with a smaller investment amount
Incentive-based financing	A clear growth opportunity, e.g., launching a new product or service	36 months	25% annum	per 6-month moratorium	The entrepreneur can pay as slowly or as quickly as they prefer to take advantage of the incentive and get to keep ownership of their business.	Less rigorous due diligence making it more cost-effective for investors with a smaller investment amount
Convertible revenue-based financing (with moratorium)	Technology development with clear customer proposition or off-takers	5 years	2 X	6-month moratorium	The entrepreneur has the flexibility of paying back investors and a long-term path to ownership.	The investor who is taking equity like risk has a clear exit with an opportunity to benefit from any upside of a liquidity event.

In order to address the needs that were drawn out from the desk research, survey and in-depth interviews, **the pilot project implemented three key change ideas to enable the growth of the women-led SGBs in agri-energy ecosystem.** The change ideas are: **provision of personal development and business support services, reformed application and due diligence processes and alternative financing instruments to equity, debt and grants** such as **revenue-based non-asset backed financing.** We developed a diagram for the lack of capital for women-led SGBs in agri-energy in sub-Saharan Africa (**Figure 7**). For the purposes of this study, we focus on the drivers which are closest to the outcome of interest and thus, proposed “change ideas” that address these drivers such as revenue-based financing, non-asset backed financing, and reformed due diligence and transaction processes. Following the desk research, we first tested the “change ideas” through a qualitative survey of female entrepreneurs across sub-Saharan Africa, and then implemented some of the learnings from the survey alongside the results of the desk research in the pilot project.

Figure 7: Drivers for lack of access to capital for women-led SGBs in agri-energy



4.1.1 Provision of personal development and business support services

Drawing from both the insights from the interviews and the desk research, the support to be provided was broken into 3 key stages: **1) Pre-investment support; 2) Support during the investment process; and 3) Post-investment support.** The Empress Pilot Fund sought to partner with various Entrepreneur Support Organisations (ESOs) in a number of countries in Southern and Eastern Africa to provide personal development and business support services for the SGBs with the potential to be funded.

Pre-investment support

Pre-investment support was focused on enabling the entrepreneurs to become investor-ready and included training programmes on preparation of pitch decks, understanding the different types of financing available (including the alternative instruments), historical financial statements, and financial forecasts covering the next five years. Partner ESOs for the pre-investment support included: **Pranary** – the practical business school for entrepreneurs⁵⁹; **Bedco** – a Lesotho government supported enterprise development organisation⁶⁰; and **The Rallying Cry** – an ecosystem initiative at the intersection of gender and climate.⁶¹

Our research showed that **many women entrepreneurs did not know what type of financing they needed in terms of the funding options available to them and were unaware of the documentation and evidence they needed to provide a funder when applying.** Under the Empress Pilot Fund, ATG opted to asking women entrepreneurs to provide them with a forecast for their business revenue, which helped them in structuring a financial package tailored to the needs of the women.

Support during the investment process

Support during the investment process focused on finding the ESOs to partner with that would provide the pre-investment support the SGBs needed, **training the ESOs on our application and due-diligence process** as well as what was required from the entrepreneurs, **supporting the entrepreneur to get onboarded once the requirements were met, and documenting key metrics for impact measurement** pre- and post-investment. To support the entrepreneurs during the investment process, we hired a dedicated portfolio manager for the Empress Pilot Fund.

Our research showed that **a lot of women entrepreneurs found the application processes from traditional financiers daunting** as they were usually lengthy and paper-based. Furthermore, it is often inconvenient for women to complete and deliver documents in-person and sometimes impossible for those who are based in rural areas. This led ATG to simplify the investment process under the Empress Pilot Fund as is further explored below.

Post-investment support

Post-investment, **the portfolio manager remained a key contact point for the entrepreneurs providing them with support including capacity building** through monthly management meeting check-ins that tackled the entrepreneurs' most pressing challenges with the aim of helping them unlock any bottlenecks, **connecting the entrepreneurs to key networks** that could help to open up markets for them and potentially provide them with business support services, and finally, **arranging personal and professional development retreats** for the portfolio of companies that were funded.

Our research showed that **there are many capacity issues around financial reporting, sales and access to market, as well as branding and marketing**. This led ATG to provide support during monthly management meetings where they would review financial reports with the entrepreneurs and connect them to mentors who would help them connect to markets (local and international). Finally, the findings around the lack of marketing capacity led ATG to start encouraging women entrepreneurs to develop an online presence which would help with making their business look more legitimate.

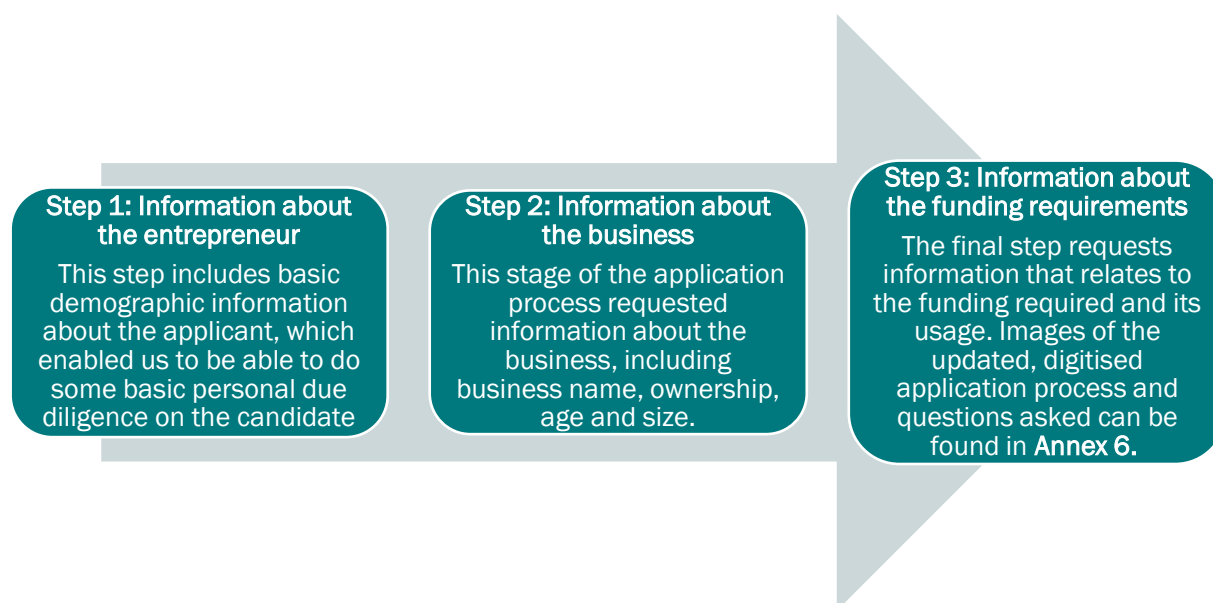
4.1.2 Reformed application and due diligence processes

In line with the findings from the research, the second change idea that the Empress Pilot Fund sought to implement was to reform the due diligence and application process. The research indicated that the due diligence process had been a major hurdle for women applying for funding. The pilot approached this in two ways: by **minimising the requirements for application and simplifying the process**; and by **digitising the due diligence and application process**.

Minimising the requirements for application and simplifying the process

This was done by breaking up the application process into **three steps** to ensure it was less intimidating and could be completed in one sitting. Images of each stage of the application can be found in **Annex 6 (Figures 9, 10 and 11)**. The steps were broken down in **Figure 8**.

Figure 8: Stages of the funding application



In the Empress Pilot Fund, ATG redesigned the application process, so that they would **only obtain the most critical information from women entrepreneurs** which would help them assess if the business could move forward in the process or not. This was a shift from ATG's approach before when they would ask women entrepreneurs different information, then interview them and request further documentation, a process that ended up being too lengthy and cumbersome for the SGBs.

Digitising the process

In order to make the application and due diligence process easy to access and complete, the Empress Pilot Fund digitised the process. **The application and due diligence could be accessed by web and/or mobile and be completed in one seating.** The aim was to ensure that the process could be completed within 10 minutes and avoid women having to submit documents in paper and in person.⁶² This makes the application more accessible across the continent with the potential to reach more women-led SGBs, as entrepreneurs did not have to come to the ATG offices in South Africa to submit their application. Additionally, by making it shorter and less laborious, more women-led SGBs are likely to complete it and apply for funding.

4.1.3 Revenue-based non-asset backed financing

Finally, the third key change idea that the Empress Pilot Fund instituted involved **creating and testing four financing instruments better suited to the women-led SGBs and their unique context and needs** (see **Table 3**). This was in order to fill the gap in alignment between available sources of financing and the needs of women-led SGBs in the region.

There were six main aims and features of the instruments, tailored to solve particular challenges that the women-led SGBs encountered with existing available sources of funding:

- **No requirement for assets as collateral:** This was taking into consideration the legal and cultural context of women entrepreneurs in the region where they were unlikely to have ownership of land and other assets. An alternative for collateral that ATG used was future revenues of the business that were ascertained through a thorough forecasting process. ATG would then base the SGBs repayment strategy on the forecasted revenue.
- **The financing had to be catalytic:** The funding had to be invested in an asset and/or activity that supported the business to grow to the next level of revenue and potentially put the business at a better position to be able to access further funding from other institutions.
- **Suited to the business need and model:** The funding had to be matched to the business need (e.g. short term versus long term) and model (e.g. seasonality).

- **Smaller investment amount requirement:** The funding required had to be under USD 50,000 per SGB. This was to fill the gap for smaller investment amounts in the sector that were not noted to lacking from the existing sources of funding.
- **Lighter application and due diligence processes:** This was to avoid friction and enable the applicants to feel confident that they could apply and be considered for the funding. The due diligence process was simplified and broken down in three quick steps as explained above to obtain only the most critical information needed for ATG to assess if the business had potential to be funded or not.
- **Open to co-funder participation:** The funding was open for other co-funders to participate in the round of funding (and/or after) if the entrepreneur needed more than the maximum amount available from the Empress Pilot Fund. ATG limited the maximum investment amount available because of the limited capital at hand. However, ATG kept the funding open, so co-funders could provide more financing if it was needed by the SGBs. This, however, did not happen during the pilot.

4.2 Lessons Learned

The pilot project of Empress Fund is still ongoing with the seven entrepreneurs funded through the pilot still in the process of repaying their facilities. Thus far, **the funding has shown relative success**. The full portfolio with case details can be viewed from the [Empress Fund website](#). Below is a summary of lessons learned thus far.

4.2.1 The need for training on alternative financing

Providing any innovative service or product requires a learning curve. There was **a need to educate the entrepreneurs and ESOs on how the alternative financing products work and providing them insights on the pros and cons of each product**. For instance, the drawdown account appeared to be the most difficult for the entrepreneurs to understand as they expected a more finite product with a clear beginning and exit. The training was done as part of pre-investment support and helped the SGBs to better understand various financial products available on the market including the alternative financing instruments and how they differed. This equipped them with the information they needed to choose the product they believed was best suited to their business and context.

4.2.2 The need to match business model to product

In order to solve the gender funding gap in the agri-energy ecosystem there is **a need to match the instruments to both the business need but also their model** (e.g., payments cycles) **and context** (e.g., seasonality). This ‘customisation’ created unique challenges for the Empress Pilot Fund, a major one being that there was no availability of off-the-shelf accounting or loan systems that could be used to track the loans and repayments with their unique features such as ‘variable repayment amounts’, ‘seasonality’ and ‘moratoriums’ as most systems are designed for traditional loans. This left the pilot with two options – either explore the building of a customised system or work in excel. We opted for both and managed the repayments in excel as we built out our learnings and then started to work on building a customised system to cater for each instrument. The latter is, however, still a work in progress. This kind of customisation could be seen as a hurdle for quick scaling of such instruments.

On the upside of this challenge, however, is the fact that the need to customise the instrument to the business provided the pilot team with a good opportunity to sit with the entrepreneurs to understand their businesses and structure the financing in a way that supported the business’ growth rather than hinder it. Additionally, once the basic blocks of the business model, its expected cashflow patterns and intended use of funds were established – the team were able to ‘re-use’ the instruments in similar business, pointing to a possibility of adaptability and scalability with more use cases.

4.2.3 The need to test in markets with enabling financial environments

There may be **a need to test and pilot in markets with more enabling financial environments that allow for sandbox experimentation**. One of the biggest hurdles we experienced, being based in South Africa, was the stringent exchange controls which caused delays in disbursements of facilities to the companies that were based out of South Africa. The need to have each facility documentation reviewed

and to get central bank approval of each facility caused significant delays and at times additional expenses in legal fees to review documentation. Thus, looking forward to scaling such products, operating in a more enabling financial environment would be beneficial.

4.2.4 The need to ease friction and provide additional support services

There is a **need to provide assistance to entrepreneurs throughout all stages of the investment process**. Implementing the alternative financing instruments in isolation may not have been as successful without the other interventions. The personal development and business support assistance provided vital support to entrepreneurs at all stages of the investment process.

5 The Impact of Supporting Women-led SGBs in the Agri-Energy Ecosystem

The impact of supporting these companies could lead to better sustainable business that can grow to their fullest potential and provide economic and social returns. It might also have significant positive impacts on their families including better access to health, education and technology. Additionally, such impact could translate to their wider communities' improvements through creating direct and indirect jobs and enabling value chains that can support low-income farmers, especially women farmers. The Empress Pilot Fund demonstrates some of these impacts that are to be discussed in turn in the following sub-sections.

5.1 Economic, Social and Environmental impact

Through the Empress Pilot Fund, seven women-led SGBs were funded with investment amounts ranging between USD 15,000 and USD 50,000. Below is a summary of some of the impacts that were reported. The full impact report and measures are available in [Annex 4](#).

5.1.1 Economic impact

We found that implementing the key change ideas has generated **positive economic impacts for the women-led SGBs**. This is illustrated by Evnoia, who received the funding as an alternative source of working capital that allow the company's production to grow six times between December 2021 and December 2022 (see [Box 3](#)).⁶³

The economic impact of funding the businesses has included, but is not limited to: the ability to purchase assets that have increased revenues; the ability to launch new product and service lines and/or increased production of existing lines that have increased revenues; the ability to further fundraise and/or gain strategic partners through increased legitimacy; the ability to expand operational facilities; the ability to get consistent supply of inputs that has resulted in better efficiencies in production; improved digital presence with improvements in website; and increased capacity through an ability to hire better or more staff through the funding.

Box 3: A case study of economic impact: Evnoia

About the company: Evnoia is an agri-processing company located in Lusaka, Zambia. They are a spice and herb manufacturing company that works with smallholder low-income farmers to grow and process their produce into spices and herbs with a local twist.

The problem: Evnoia had been given the opportunity to supply a number of big retailers across the country. However, the payment cycles for these retailers could often be as long as five months with payment amounts for each cycle proving difficult to predict as the business would only get paid based on the consignment sold by the retailer each month (rather than the full order). This created a working capital challenge for the entrepreneur who had monthly expenses to pay including paying of the low-income farmers that supplied their inputs. The entrepreneur could not access any short-term financing from traditional banks due to lack of collateral resulting in a negative impact on the growth of the business.

The solution: The Empress Pilot Fund extended the drawdown account instrument as an alternative working capital facility. Key features of the instrument are summarised below:

- **Short description:** An instrument with variable monthly payments based on an amount outstanding up to a certain amount (similar to an overdraft)
- **Use of funds:** Working capital management based on revenue cycles
- **Approved amount:** Up to USD 50,000 (maximum accessed was USD 42,000)
- **Term:** 12 months
- **Cost:** 30% per annum
- **Added feature:** Six-month moratorium

The rationale for the choice of instrument: The entrepreneur's main challenges were a lack of working capital financing and an inability to predict how much they would be paid in each cycle by their customers. The drawdown account was thus best suited for them as it is a short-term facility that allowed them to draw and only be charged for what they had accessed for their use on a monthly basis. A six-month upfront moratorium was built in to allow them to learn how their customer payment cycles and terms worked.

- **The outcome:** Evnoia have since grown their production by over six times, from 15,000 units to over 100,000 units; has more than doubled their team from 10 to 25; and onboarded 33 independent female sales agents as part of their value chain.
- **The status:** Evnoia is on schedule with making their repayments and the facility is on-going.
- **The impact:** Evnoia has enabled five low-income farmers to set up and grow produce specifically for their uptake as inputs. Post the investment, they were accepted into a supplier development programme with a local development agency as they were able to show a clear track record of their growth. Through the programme they were introduced to potential customers in the neighbouring Democratic Republic of Congo (DRC).
- **The expected longer-term impact:** Evnoia expects to start exporting into the DRC within the next 24 months. This would see them triple their production to 300,000 units within this timeframe and enable them to support an additional 15-20 low-income farmers.

Quote from the Entrepreneur: *"Funding has allowed us to move from producing and blending spices at home to a warehouse with machinery. We are now able to increase production and supply by 6 times and have improved packaging from sachets & bottles to boxes too."*



5.1.2 Social impact

Additionally, we found that implementing the key change ideas has generated **positive social impacts for the women-led SGBs**. The social impact has included, but is not limited to, an increased ability to create jobs directly and indirectly, improved livelihood of communities through new jobs created, improved access to clean energy and/or clean water and an increased access to training and skills development. See **Box 4** and **Table 5, Annex 4** for the quantification of impact.⁶⁴

Box 4: A case study of social impact: Mahlaseli Energy

About the company: Mahlaseli Energy is a clean energy company based in rural Lesotho. They work with smallholder farmers in water-scarce regions of Lesotho to supply them with solar-powered irrigation systems. They also train farmers on the use of the solar-powered equipment.

The problem: Mahlaseli had a clear opportunity to work with the government of Lesotho to supply 100 villages in 10 districts with solar-powered irrigation systems. They needed to set up one solar-powered irrigation system in the first village of choice as a proof of concept. They, however, could not access traditional loans due to a lack of collateral.

The solution: The Empress Pilot Fund extended the opportunity-based financing instrument to allow them to purchase and install the solar-powered irrigation equipment for the proof of concept. Key features of the instrument are summarised below:

- **Short description:** An instrument with variable monthly payments based on earnings from a clear growth opportunity.
- **Use of funds:** Asset purchase or to pursue and take advantage of a clear growth opportunity
- **Approved amount:** USD 30,000
- **Term:** four years
- **Cost:** 2 X
- **Added feature:** Six-month moratorium and modelled to seasonality

The rationale for the matching: The entrepreneur needed to purchase an asset that would be utilised to demonstrate their ability to take on the supply for a government contract on a longer term. This presented a clear growth opportunity with backing third-party documentation. The opportunity-based instrument was thus best suited for the entrepreneur as it was used to buy the initial proof-of-concept equipment with a six-month moratorium built into the repayment schedule to allow for the importation of parts for the equipment.

- **The outcome:** Mahlaseli has since purchased and installed the proof-of-concept solar-powered irrigation system that supports 10 villages in one district in Lesotho.
- **The status:** The facility is on schedule for repayment and is ongoing.
- **The impact:** The proof-of-concept installation has enabled 10 villages with approximately 10,000 people to have access to clean water for farming purposes. This has enabled low-income farmers to be able to increase their produce.
- **The expected longer-term impact:** Post the success of the proof of concept, Mahlaseli expects to be awarded the longer-term contract to supply solar-powered irrigation to at least 50 out of the 100 villages. This would see them grow their business by five times and enable them to supply energy and water to 50,000 people by the end of the facility.

Quote from the Entrepreneur: *“The funding has allowed me to have a consistent and reliable stock and supply of product. I also created a better digital presence with the funding received.”*



5.1.3 Environmental impact

Consequently, and although unplanned for in our initial impact targets, there were also **positive environment impacts** that were generated by the women-led SGBs from implementing the key change ideas. The environmental impact has included, but is not limited to, the implementation of more sustainable farming methods, the application of more sustainable energy sources, reduced food wastage and increased produce per square meter of land (see **Box 5**).⁶⁵

Box 5: A case study of environmental impact: Tsehla Holdings

About the company: Tsehla Holdings is an agriculture enterprise, based in the rural Gauteng region of South Africa. They utilise hydroponics in their farming processes and now train low-income women and youth on how to set up simple hydroponics systems to overcome land and climate challenges in their region.

The problem: Due to the scarcity of arable land and changing climate patterns that negatively impact their region, Tsehla experienced significant constraints in their ability to grow quality produce and had limited output. Tsehla identified hydroponics as a weather-proof and more environmentally-friendly method of farming for the region but could not access traditional financing to set up the facility due to a lack of collateral.

The solution: The Empress Pilot Fund extended a convertible revenue-based instrument to allow them to set up the hydroponics system. Key features of the instrument are summarised below:

- **Short description:** An instrument with variable payments based on earnings with an option for converting the instrument to equity. Behaves like equity with 3-7 year-term, but cheaper.
- **Use of funds:** Technology development with clear customer proposition or off-takers
- **Approved amount:** USD 30,000
- **Term:** Five years
- **Cost:** 2 X
- **Added feature:** Six-month moratorium to allow for technology set-up/development

The rationale for the matching: The entrepreneur needed to set up new technology to enable them to improve the quality of their produce and have more predictable output quantities. However, because the technology was very new to the entrepreneur, there was uncertainty on how long it would take to set up as well as how long the crop of choice would take to grow using the new system; thus, the shorter-term revenues from the project could not be predictably forecasted. The convertible revenue-based Instrument was best suited to match their needs as it would enable the entrepreneur to make repayments, should the revenues kick in within the shorter term whilst also allowing for protection for the investor to be able to convert it to equity if this did not happen.

- **The outcome:** Tsehla set up the first hydroponics system in the region and is training low-income farmers on the setup and use of simple hydroponic systems for better sustainable farming.
- **The status:** The facility is on schedule for repayment and is on-going.
- **The impact:** Tsehla received training on how to set up hydroponic systems as part of the process of installing their system and has since trained five women farmers to set up hydroponics systems for their smallholding farms.
- **The expected long-term impact:** By the end of the five-year facility, Tsehla is looking to have quadrupled their production; trained up to 50 women farmers in the use of hydroponics for farming; and enabled the supply and set up of at least 5 hydroponic systems within their region.

Quote from the Entrepreneur: *“The funding has given me hope and helped me to be more organised. I am also able to create space for other women who don't understand the hydroponics system so that they can create their own income streams.”*



5.2 Impact on Low-Income Farmers

Implementing the change ideas has produced cascading effects on low-income farmers, most especially women, within the value chains and communities of the women-led SGBs. The impact includes but is not limited to indirect job creation through value chains created and onboarding of additional low-income farmers into food aggregation programmes, enabled low-income farmers to earn an income that was not available to them before, improvement of livelihoods of low-income farmers and their families through increased family earnings, and increased training and knowledge of low-income farmers through expanded training programmes and incubation provided by the women-led SGBs (see **Box 6**).⁶⁶

Box 6: A case study of impact on low-income farmers: Umgibe Farming Organics

About the company: Umgibe Farming Organics is a small-scale agricultural enterprise in the rural Kwazulu Natal region of South Africa. The company works with women smallholder farmers training them to sustainably farm and produce food, which they then aggregate and process for retail.

The problem: Umgibe was experiencing high food wastage as a result of insufficient processing and food storage capacity. They needed an additional food storage facility to extend their product shelf life but did not have the collateral to access traditional bank loans to extend their facility.

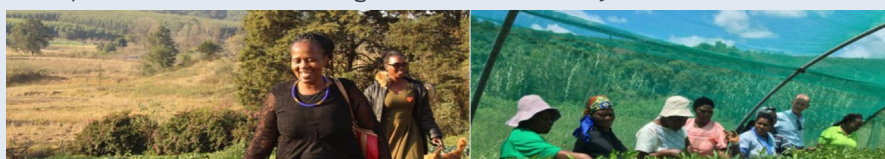
The solution: The Empress Pilot Fund extended the incentive-based financing instrument with a 6-month moratorium to allow for a planting and harvesting season that would unlock additional cashflows and lower rates for settling early. Key features of the instrument are summarised below:

- **Short description:** An instrument with variable payments based on milestones and incentivised for early settlement.
- **Use of funds:** A clear growth opportunity e.g. launching a new product or service
- **Approved amount:** USD 30,000
- **Term:** Four years
- **Cost:** 25% per annum
- **Added feature:** Six-month moratorium to allow for setting up the additional storage capacity

The rationale for the matching: The entrepreneur had already established processing capacity and consistent customers but couldn't meet demand due to insufficient storage capacity. The incentive-based instrument was best suited for them as it would enable them to make higher payments when the cash flow allowed and included an incentive for paying lower interest rates should they repay within three years (rather than four).

- **The outcome:** Umgibe utilised the facility to set up additional cold storage capacity which has reduced food wastage and increased their product output and revenues. They have also been able to get larger customers and strategic partners in their supply chain.
- **The status:** Umgibe is on schedule with making their repayments despite experiencing extensive product loss due to extensive flooding that occurred in the Kwazulu Natal region in April, 2022.
- **The impact:** Umgibe has since been able to onboard an additional 300 farmers into their farmer aggregator process and trained an additional 90 women farmers under their incubation programme.
- **The expected longer-term impact:** By the end of the facility, Umgibe is looking to double their impact by onboarding up to 600 low-income farmers into their aggregator process and training an additional 200 farmers under their incubation programme.

Quote from the Entrepreneur: *"It has been easier to get support from other partners...it has created a knock-on effect...We have attracted more farmers to our community farming scheme who can bring produce to our pack house and cold storage to sell on market days."*



6 Conclusion and Recommendations

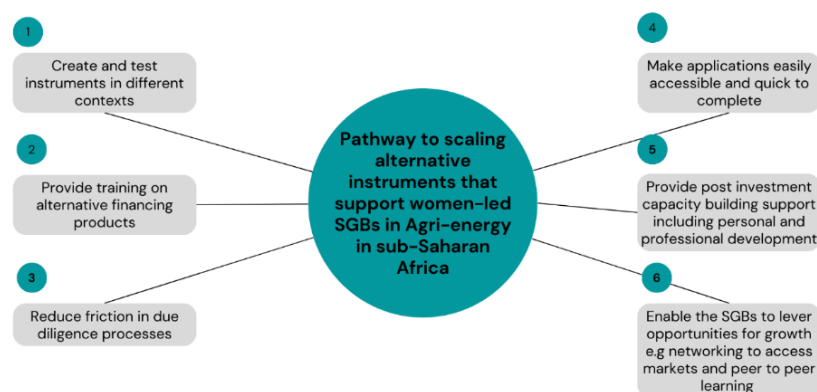
6.1 Pathway to Scaling Alternative Financing Instruments

Based on the aforementioned lessons and the findings from the pilot, there is still room for creating and testing more alternative financing instruments that are better suited to the unique context of women-led SGBs in agri-energy in sub-Saharan Africa. This will require markets that have enabling environments for innovation of financial services to allow for such experimentation.

6.1.1 A multi-pronged approach

Consequently, efforts to scale such alternative instruments beyond testing will require financial institutions to implement **a multi-pronged approach that includes elements of training, capacity building and easing the friction in application and due diligence processes** to make them more accessible for women-led SGBs. The proposed multi-pronged approach is summarised in the diagram below.

Figure 12: The proposed multi-pronged approach to scaling alternative financing instruments



6.1.2 Opportunities for leveraging products and experience across portfolio companies

In phase 2 of the pilot, ATG will focus on supporting growth and value creation for the portfolio companies. We identified clear opportunities for leveraging products, services, and experience across the portfolio companies to unlock further growth. For example, Tsehla’s hydroponics system could leverage the solar power equipment supplied by Mahlaseli to overcome the current loadshedding challenges being experienced in South Africa from the national grid which mostly utilises coal. When financial service providers are considering value creation opportunities for the target companies, it will be **key to look at this from a portfolio-wide perspective** to identify low hanging fruit for growing the business through peer-to-peer learning opportunities and potential supply of products and services.

6.2 Conclusion

Through this pilot, the Empress Pilot Fund created and tested four innovative products to meet the needs of women-led SGBs. Whilst the pilot is still in its early stages, **there is evidence of success both from a repayment perspective but also from an impact perspective**. Over the course of 2023 and 2024, ATG plans to support the portfolio with their value creation efforts such as support with access to markets, mentors and capacity building; and position them for further growth and/or funding via other funds.

This project, however, would not have been possible without the concessionary capital that the ATG received from Shell Foundation in the form of a learning grant to implement this pilot. Such concessionary capital from philanthropic organisations and development finance organisations is thus critical and catalytic to enabling local capital providers to be able to create products that are appropriate for local context and culture.

Bridging the gap in access to finance for women in all sectors in Africa will **require a multi-pronged and multi-player approach**, involving training and capacity development from players such as ESOs, but also **innovation from financiers** to meet the unique needs and social and cultural contexts of women entrepreneurs in Africa. The agri-energy ecosystem holds a huge opportunity for economic and social development of the continent, and with the majority of the workforce being made up of women, it would be a missed opportunity for African and non-African investors to ignore the opportunity of funding women-led SGBs. Financing SGBs can not only contribute to fast tracking the sector's growth and its social and economic impact but also to diversifying investment portfolios.

Annex 1. Survey Data Questions

APPLICATION FOR INVESTMENT



Thank you for your interest in applying for investment. Please complete the form below

*** Required**

1. Name *

2. Surname *

3. Gender *

Check all that apply.

- Male
- Female
- Other
- Prefer not to say

4. Country of residence *

5. How old is your company *

Check all that apply.

- Not yet established Under 6 months
- 6 months - 1 year old
- 1 - 3 years old
- Over 3 years old
- Other:

6. What sector is it in? *

Check all that apply.

- Agriculture and Agri-products
- Clean Energy
- Climate Manufacturing
- Social-impact Technology Infrastructure
-

- Media and communications
- Other:

7. Investment ask: How much financing are you looking for? *

8. Other asks: Apart from access to financing do you need access to any of the following? *

Check all that apply.

- Personal and professional leadership development
- Access to other markets and trade facilitation Business capacity building
- Subsidised support services
- Financial investment
- Other:

9. Email Address *

10. Phone number

Annex 2. Survey Sample

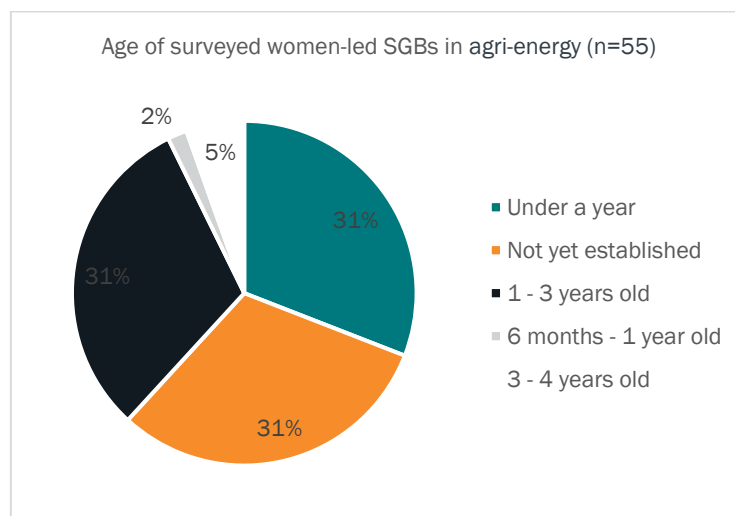
The countries covered and how many participants there were from each country are summarised in **Table 4**.

Table 4. Survey data countries and participants by country

Southern Africa	East Africa	West Africa	Other
Botswana (1)	Kenya (3)	Cameroon (1)	United Kingdom (2)
Lesotho (2)	Rwanda (1)	Ghana (5)	
Malawi (6)	Tanzania (1)	Nigeria (8)	
Namibia (5)	Uganda (1)	Senegal (1)	
South Africa (3)	South Sudan (1)	Sierra Leone (1)	
Zambia (12)			

Below is a summary of the split of ages of businesses,

Figure 1: Age of surveyed women-led SGBs in agri-energy



Annex 3. Interview Questions

Basic Demographic Information

1. Name of business:
2. Age of business:
3. Sector:
4. Location:
5. Name of respondent:
6. Gender of respondent:
7. Position of respondent in the business

Funding

8. How have you funded your business so far?
9. What type of funding have tried to access?
10. Which ones have been successful?
11. Which ones failed and why?
12. How many times have you received funding for your business?
13. How many types of funding do you know?
14. What are your thoughts on equity?
15. What are your thoughts on loans?
16. What is your preferred choice of funding?
17. How do you decide how much funding your business will need?

Growth

18. How has funding supported your business growth?
19. Have you been able to increase your revenue since?
20. How many staff members have you been able to hire since you received funding?

Needs

21. What support did you need before the funding process?
22. What support did you receive before the funding process?
23. What support did you need during the funding process?
24. What support did you receive during the funding process?
25. What support did you need after the funding process was completed?
26. What support did you receive after the funding process was completed?
27. What support do you still think you need to grow your business?

Due Diligence

28. How long did the due diligence process take before you received your funding?
29. How long did it take to submit the requirements for due diligence?
30. Did you understand why you needed to submit the requirements for due diligence?
31. What was the biggest challenge that you faced providing the required documentation?
32. How can the due diligence process be simplified?

Annex 4. Impact and Performance Dashboard

Table 5: Impact measures

INDICATOR	2021					2022					PROJECT TOTAL
	Q1	Q2	Q3	Q4	TOTAL	Q1	Q2	Q3	Q4	TOTAL	
Livelihoods Improved	0	0	2878	151	3029	255	45	450	0	750	3779
Male	0	0	575	30	605	30	15	0	0	45	650
Female	0	0	2303	121	2424	225	30	450	0	705	3129
Unknown	0	0	0	0	0						0
Number of Jobs Supported	0	0	40	44	84	15	4	210	0	229	313
Full-Time	0	0	40	44	84	15	4	40	0	59	143
Male	0	0	8	9	17	5	0	0	0	5	22
Female	0	0	32	35	67	10	4	40	0	54	121
Unknown	0	0	0	0	0	0	0	0	0	0	0
Part-Time	0	0	0	0	0	0	0	170	0	170	170
Male	0	0	0	0	0	0	0	20	0	0	20
Female	0	0	0	0	0	0	0	150	0	0	150
Unknown	0	0	0	0	0	0	0	0	0	0	0


Annex 5. Available Sources of Financing

Table 6. High-level advantages and disadvantages of available sources of financing

Type of financing	Advantages	Disadvantages
Savings	The entrepreneur gets to keep ownership of their business and does not have to pay back any individual or entity	Usually limited to small amounts as women have been noted to start with less savings due to the gender pay gap
Family and friends	Usually comes with friendly terms and can often be extended for long periods of time	Limited to the type of family and friend network, with women-led SGBs often being noted to have weaker networks in terms of family and friends with disposable income
Loans (local)	Can be fairly quick to access from local micro-finance institutions. This may not be the case for banks	Usually expensive with loans in countries like Zambia being noted to have interest rates as high as 40% per annum
Loans (international)	Will usually have better interest rates than local loans	Difficult to access often due to lack of knowledge of sources and higher documentation requirements. Also often target bigger investment amounts
Grants (impact)	Often comes at concessionary rates (sometimes zero interest)	High administrative costs of reporting and/or may require other matched funding to be accessed
Grants (government)	Often comes at concessionary rates (sometimes zero interest)	High administrative costs of reporting and usually associated with tedious processes
Technical assistance	Provides targeted capacity building support to an organisation with a development problem	Often lacks local context and culture relevance and thus tends to be inflexible to meet target organisation needs.
Equity	Does not require pay back	Requires the entrepreneur to share ownership and sometimes control over their business

Annex 6. Reformed Application and Due Diligence Processes

Figure 9: Information about the entrepreneur requested in the updated application process



Investee Sign Up

Already have an account? [Sign in](#)

1 About You 2 About Your Company 3 Funding Details

Founder's First Name *

First name is required

Founder's Last Name *

Last name is required

Founder's Gender *

Country of Residence *

Country of residence is required

Facebook Profile Link

Instagram Handle

Twitter Handle

LinkedIn Profile Link

Phone Number *

Phone Number address is required

Email Address *


Email address is required

Password *

I agree to the [Terms of Service](#) and [Privacy Policy](#)

Next

Figure 10: Information on the business requested in the updated application process



Investee Sign Up

Already have an account? [Sign In](#)

1 About You 2 About Your Company 3 Funding Details

What is your company's name? *

Company Name is required

What is the number founders in your company? *

Number of Founders is required

How many of the founders are female in your company? *

Number of Female founders is required

What is the percentage of female shareholding? *

% of Equity Owned by Female Shareholders field is required

What are the names of the founders? *

Names of Founders field is required

Company Facebook Profile Link

Company Instagram Handle

Company Twitter Handle

Company LinkedIn Profile Link

What is the company website?

How old is your company? *

How many employees does your company have? *

How does your company make money? *

Revenue model is required

What sector is it in? *

How much money does your company make per month from sales? *

Average Monthly Revenue is required

Have you applied for funding before?

What impact are you creating in your community? *

Impact Description is required

What impact do you expect to make with the funding you are applying for? *

Figure 11: Information about the funding required in the updated application process



Investee Sign Up

Already have an account? [Sign in](#)

1 About You 2 About Your Company 3 Funding Details

How much are you requesting for? *

Requested amount is required

What do you need the money for? *

Purpose of funding is required

How long do you need the money for? *

Please list any existing loans that you have received. *

List of existing loans is required

Please list any other funding that you have received. *

List of other funding is required

Pitch Deck *

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⁶³ The pictures portray Evnoia Products - bottled (left) and sachet (right).

⁶⁴ The pictures portray Mahlaseli Products – ground installation that powers irrigation (left) and roof installation (right).

⁶⁵ The pictures portray Tsehla Holdings products- Installation of the hydroponic system (left) and the produce from the farm (right).

⁶⁶ The picture portrays Umgibe farming produce in the field (left) and Umgibe training programme (right).