

# South-South Series: Empowering and Growing Women-led Business



## BUSINESS PROFILE



**RHEA**  
**Kenya**  
[Website](#)

### ABOUT RHEA

- **Company status** : Private business.
- **Year of registration**: 2022.
- **Number of employees**: 12 employees, including 8 women.
- **Business sector** : AgriTech.



Soinato Leboo and Priscilla Wakarera – Co Founders



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## CONTEXT

### Background

Rhea was established in 2022 in response to a critical agricultural challenge in Kenya, where declining soil fertility and limited access to reliable agronomic data have significantly reduced productivity for smallholder farmers. The founders, Soinato Leboo and Priscilla Wakarera, were motivated by firsthand observations of farmers struggling with poor yields due to unsustainable farming practices and reliance on guesswork when applying fertilizers. These challenges are compounded by climate change, which increases the urgency for efficient and data-driven farming solutions.

To address this gap, Rhea developed an innovative soil intelligence system that combines portable diagnostic hardware, artificial intelligence, and accessible digital platforms. This approach allows farmers to receive soil analysis results in less than 48 hours, compared to traditional laboratory processes that can take up to two weeks, while also significantly reducing costs.

### Vision and mission

Rhea's vision is to design and develop affordable, intelligible, and high-quality AgriTech solutions that enable sustainable food production for the average farmer.

Rhea's mission is to empower smallholder farmers through precision agriculture technologies, accessible soil testing, and education on soil health management.

### Position in the market

Rhea is an emerging innovator in Kenya's AgriTech ecosystem, positioned as a soil intelligence and precision agriculture provider targeting smallholder farmers. It differentiates itself through affordability, speed, and localized AI-driven insights. The company contributes to climate-smart agriculture and aligns with sustainable development goals (SDGs), particularly food security and climate action.

### Relationships with smallholders

Rhea maintains close relationships with its core stakeholders, particularly smallholder farmers, who are both beneficiaries and active participants in its model. The company works with farmer groups and cooperatives to expand outreach and deliver training programs, while also engaging with development partners and funders to scale its impact. In addition, Rhea contributes to broader agricultural value chains by improving input efficiency and supporting data systems that can enhance farmers' access to finance and markets.

## SERVICES AND MARKET

### Main services

Rhea provides a range of technology-driven services focused on soil health management and farm productivity. Its core offering includes rapid soil testing using portable diagnostic devices, supported by AI-driven soil analysis and customized nutrient management recommendations. The company also generates soil fertility maps and predictive datasets, alongside Measurement, Reporting, and Verification (MRV) systems tailored to smallholder farming contexts. These solutions are further enhanced through digital advisory tools, including a WhatsApp-based chatbot that delivers results and agronomic

recommendations in accessible formats and local languages.

Beyond its technology-based services, Rhea delivers training and educational workshops aimed at strengthening farmers' understanding of soil health and promoting the adoption of sustainable agricultural practices.

### Main markets

The company's primary market is local, focusing on smallholder farmers across Kenya. However, its model has strong potential for regional expansion within East Africa, where similar agricultural challenges exist.

## INNOVATIONS: MILESTONES AND EXPANSION PLANS

### Milestones

Since its establishment, Rhea has achieved several important milestones in technology, impact, and financing. The company developed its proprietary Agripad device, which enables rapid and portable soil diagnostics, and integrated it with AI-powered models to deliver accurate and actionable insights. It has also introduced a digital communication system through a WhatsApp chatbot, making its services more accessible to farmers with limited connectivity or technical expertise. These innovations have reduced soil testing time from up to 14 days to under 48 hours while maintaining a reported accuracy of approximately 95 percent.

Rhea has already reached tens of thousands of farmers and continues to expand its data infrastructure to improve predictive capabilities and support climate resilience. In 2024, the company

secured a \$75,000 investment through Village Capital, supported by Standard Chartered Bank's Women in Tech initiative, which is being used to scale operations and enhance its technological platform. Another key innovation lies in its gender-inclusive approach, which trains women as field agents and creates new economic opportunities within rural communities.

### Needs for upscaling

Looking ahead, Rhea requires further support to scale its impact. This includes technical investment to expand its AI systems and hardware distribution, financial resources to grow into new markets, and supportive policy frameworks for digital agriculture. Continued capacity building among farmers will also be essential to ensure adoption and long-term sustainability.

## SUCCESS FACTORS AND LESSONS LEARNED

Rhea's success is largely driven by its strong focus on the needs of smallholder farmers and its ability to deliver affordable, accessible, and practical soil health solutions. By combining advanced technologies such as AI-driven soil analysis and portable testing tools with user-friendly delivery channels, the company bridges the gap between scientific knowledge and everyday farming practices. Its last-mile approach, supported by local field agents and community engagement, further enhances accessibility and helps build trust among farmers who previously had limited access to soil testing services. Education and training also play a central role in its model, strengthening farmers' understanding of soil health and encouraging the adoption of more sustainable practices.

A key lesson learned from Rhea's experience is that technology alone is not sufficient; it must be complemented by training, local adaptation, and continuous engagement with users to ensure meaningful adoption. The company also demonstrates that affordability is essential for scaling innovation in low-income rural contexts, while inclusive approaches, particularly those involving women and youth, can significantly improve impact and uptake. Finally, Rhea highlights the importance of encouraging a shift toward long-term soil stewardship, showing that sustainable agriculture depends not only on improved tools but also on changes in farmer behavior and decision-making over time.



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