



# Solar Sister

## Highlights of 2022



# Why Our Work Matters

## What is Energy Poverty?

Inadequate access to energy leaves those affected dependent on burning solid biomass in inefficient and polluting ways, leaving those, typically in rural and remote communities, in a cycle of unproductivity and poverty.



**1.3 billion** people globally lack access to energy, forcing them to rely on health-harming and planet-polluting fuels.



With less than **\$1.90 a day**, 698 million people live below the extreme poverty line and are unable to fulfill basic needs like food, water, and shelter.

Access to energy is fundamental to alleviating poverty and advancing health and education, particularly for women and children<sup>1</sup>. Affordable, reliable, and efficient electricity increases productivity, generates jobs, and enhances living conditions and socioeconomic success<sup>2</sup>. Despite this, over one billion people globally lack access to energy, with deficits increasingly concentrated in sub-Saharan Africa<sup>1</sup> and with women and children disproportionately bearing the brunt of its negative impacts.

## Why are Women Disproportionately Impacted?

- Women can spend up to 10 hours a week collecting fuel for energy use, often leading to young girls being removed from school for firewood collection and preventing women from participating in other income-generating activities<sup>3</sup>.
- Walking great distances for fuel leaves women vulnerable to physical attacks.
- Cooking with these fuels, and inhaling the toxic smoke, endangers women's and children's health.

<sup>1</sup> <https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf>

<sup>2</sup> [Increasing Electricity Access in Tanzania to Reduce Poverty \(worldbank.org\)](#)

<sup>3</sup> [CCA-gender-sheet ENGLISH.indd \(cleancooking.org\)](#)

As primary household energy managers with powerful social networks, women are uniquely positioned to bring clean energy to millions of last-mile communities. Business opportunities for women that provide access to gainful employment while addressing affordable, clean energy solutions can finally address these interlinked root causes of inequality, leading to economic empowerment for women and sustainable development capable of addressing the planet’s energy needs. Until this is recognized, sub-Saharan Africa, and the world, will remain behind on the United Nations Sustainable Development Goal (SDGs) targets related to poverty, health, education, gender equality, and clean energy access.

## Our Mission

In off-grid, remote communities of sub-Saharan Africa, where more than 597 million<sup>4</sup> people have no access to energy, 940 million<sup>5</sup> people rely on harmful fuels for cooking, and 480 million people live in extreme poverty, Solar Sister aims to eradicate energy poverty by investing in women’s clean energy businesses. We put clean power in the hands of the people.

## Our Three Pillars of Impact

**Energy Access:** Energy poverty is particularly acute in sub-Saharan Africa. Solar Sister drives impact by investing in women’s clean energy businesses in Africa and bringing clean energy to last-mile communities, providing local after-sales services, and offering a diverse product mix to their customers.



**Gender Equity:** Women’s economic empowerment is central to realizing women’s rights and gender equality. Solar Sister eradicates extreme energy poverty by empowering African women with economic opportunity and providing essential services and training that enable women entrepreneurs to build sustainable businesses.

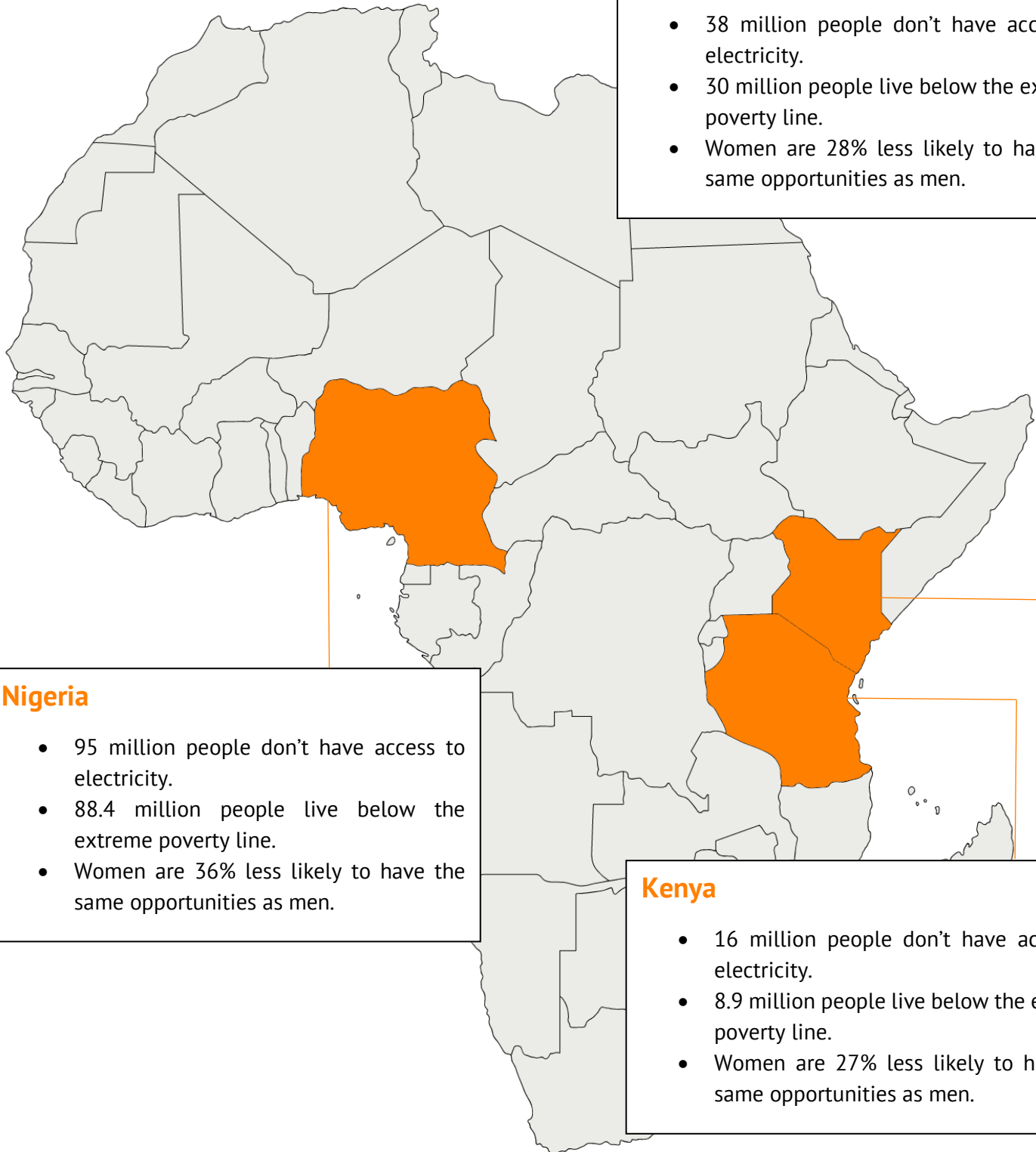


**Climate Justice:** Environmental degradation and climate change have disproportionate impacts on women and children. Solar Sister is a climate solution that also improves human well-being, boosts equity, and helps usher in prosperity for people in sub-Saharan Africa who are least responsible for the climate crisis.



<sup>4</sup> [Africa: population without electricity | Statista](#)  
<sup>5</sup> [SEforALL Analysis of SDG7 Progress - 2022 | Sustainable Energy for All](#)

# Where We Work



## Tanzania

- 38 million people don't have access to electricity.
- 30 million people live below the extreme poverty line.
- Women are 28% less likely to have the same opportunities as men.

## Nigeria

- 95 million people don't have access to electricity.
- 88.4 million people live below the extreme poverty line.
- Women are 36% less likely to have the same opportunities as men.

## Kenya

- 16 million people don't have access to electricity.
- 8.9 million people live below the extreme poverty line.
- Women are 27% less likely to have the same opportunities as men.

# How We Work

Since 2009, Solar Sister has worked to fight energy poverty across sub-Saharan Africa by recruiting, training, and supporting women entrepreneurs as they create clean energy distribution businesses. Solar Sister's award-winning innovation brings a unique gender lens to the issue of energy poverty through a women-powered last-mile distribution model delivering clean energy to underserved households in sub-Saharan Africa. We recruit, train, and support women entrepreneurs in a comprehensive support ecosystem with a codified, tested, and proven business model to launch their own clean energy businesses. These women, in turn, develop financial resilience, confidence, and community status, by delivering world-class solar and clean cooking solutions to their community's doorsteps.

Solar Sister Entrepreneurs do more than sell clean energy products; they cultivate one another's business expertise, reinvest profits in businesses and activities that improve family health and education, and engage in global advocacy on climate issues. As capacity building along the off-grid renewable energy value chain is vital for long-term operation and sustainability, our model includes a twelve-month training curriculum coupled with ongoing mentorship for women entrepreneurs. This training program benefits women in their solar business and extends their skills in leadership to communities. The mentorship and support ensure that entrepreneurs can build sustainable distribution businesses in areas that the market alone would not support, optimizing impact at the lowest cost. We provide Solar Sister Entrepreneurs the flexibility to run their businesses to meet their unique needs, tap into their strengths, and create sustainable and profitable enterprises.

## Solar Sister's Model

Solar Sister recruits, trains and supports women entrepreneurs meeting women where they are.



Women entrepreneurs improve their income, reduce economic risk, gain agency.



Clean energy has a ripple effect on finance, education, and health.



We deliver durable affordable products to the entrepreneurs.

Women entrepreneurs distribute clean energy to last-mile communities in need.




Our award-winning model has demonstrated impact on the above nine Sustainable Development Goals (SDGs) and spans all three pillars of sustainable development: economic development, social inclusion, and environmental protection.

Our model continues to lead a global transformation as the first to tap into the power of women’s trust networks to deliver clean energy to the most underserved communities, opening the door to greater health, safety, education, and economic prosperity. We measure the impact of Solar Sister’s model on women’s families and communities via increased income, increased time for productive work, and reduced energy costs.

*“The ‘Solar’ represents the renewable energy technology that will lead our energy transition to a sustainable future. The ‘Sister’ represents the essential role that women play in bringing that future into reality”* – Katherine Lucey, Founder, and Chief Executive Officer of Solar Sister


# Our Impact to Date



You brought light to more than 3,700,000 people across sub-Saharan Africa through clean energy products



You created opportunity for more than 8,500 Solar Sister Entrepreneurs



You ignited hope by mitigating more than 1,100,800 metric tonnes of CO2e emissions

# 2022-A Year of Growth

Thanks to the support of partners like you and work from the teams on the ground, Solar Sister's 2022 was a year full of milestones.



## New Solar Sister Recruits

We recruited **1,740** Solar Sister entrepreneurs last year, 23% more than we did in 2021. This is 1,740 more women who have increased income, increased decision-making power, increased ability to provide for their families, and increased overall gender equity in sub-Saharan Africa.



## Clean Energy Reach

We reached **762,843** beneficiaries this year with clean energy products. This is a 25% increase from our cumulative reach in 2021, totaling a reach of **3,711,885** beneficiaries since our start. This brings us closer to our goal of fully eradicating energy poverty. It also increases the sustainability of rural African communities by providing community members with renewable energy, sustainable cookstoves, and economic empowerment.



We generated **\$283,999,058 USD** in economic benefits for off-grid communities, a 32% increase from 2021. Solar Sister Entrepreneurs also had an average revenue of **\$445 USD**, a 25% increase from 2021. These milestones show we are decreasing energy poverty throughout sub-Saharan Africa and overall increasing economic opportunity, particularly for women.

## Helping the Planet

We mitigated **279,411** metric tonnes of CO<sub>2</sub>e last year, 21% more than in 2021. Clean cookstoves and renewable lights emit less black carbon and CO<sub>2</sub> into the atmosphere, leaving the air and climate healthier for everyone.





# Merger With LivelyHoods Kenya



In May 2022, Solar Sister unveiled an exciting new partnership with LivelyHoods Kenya, bringing us closer to our goal of creating economic opportunity and clean energy solutions for millions of people across sub-Saharan Africa.

The merger combines Solar Sister's operations in Nigeria and Tanzania with LivelyHoods' network in Kenya. Both organizations use market-based social enterprise models to bring clean energy products to underserved households and low-resource communities in sub-Saharan Africa.

The merger will expand our three pillars, energy access, gender equity, and climate justice, into the Kenyan market and accelerate Solar Sister's commitment to increase impact across sub-Saharan Africa. This is essential to reach our goal of eradicating energy poverty across the continent. The merger will continue Solar Sister's mission of providing an energy and climate solution that also improves the health, education, and income of women in off-grid communities.

*“Bringing these two organizations together is a massive leap forward in scaling up a proven energy access solution that improves human well-being, boosts equity, and helps usher in prosperity for people in sub-Saharan Africa.”*

- Katherine Lucey



## Entrepreneur Taibat Zakariyah, Nigeria

Ibadan, Nigeria-based private school teacher Taibat Zakariyah is 43. Her husband works in a lab and teaches part-time. Still, five children—four twins—strained budgets.

Taibat thinks Solar Sister's training changed everything.

*“First, the business plan training at the start of the year inspired me and showed me how much profit I could make by selling a specific group of products. Many of my customers are market women who need lighting for their enterprises or their children at night. Solar lamps let my kids study at night without harming their eyes. Every home needs light.*

*You run a business, save lives, and make money. It empowers women financially.”*

## Entrepreneur Hawa Ibrahim Chora, Tanzania

Tanzanian Hawa Ibrahim Chora, 40, is a successful entrepreneur. Hawa has long been interested in climate change in north-central Tanzania and how she might help. She became an environmentalist after attending seminars.

Hawa started a tree plantation with her Solar Sister Entrepreneur savings. Hawa understood people needed to cut trees for fuel and charcoal for cooking. She believed a nursery would be great for her neighborhood because you had to travel to another district to acquire new trees.

*“People buy a lot of tree seedlings now because they know plants help the environment. Over 4000 seedlings.”*

Since she quit cooking over an open fire, Hawa feels better, and her customers can see it.

Hawa wants to breathe good air, minimize drought, and live in a tree-filled community.





## Entrepreneur Mary Kemura Omboga, Kisii, Kenya

Mary Kemura Omboga, 27, has sold Solar Sister Kenya products for over two years. Her parents, three brothers, and eight sisters live in Kisii, her hometown.

Mary is delighted she can care for her five-year-old son Japheth since becoming a Solar Sister sales agent. She buys school supplies for her son and helps her family at home. Mary enjoys meeting new people and traveling to new areas of the city.

*“I am proud that I can sell well and explain to them how the stove would save them time and money.”*

Mary said the training will help her attract and keep excellent customers when she opens her shop.

*“This is good work for women. You can make a good living even if you didn't finish school.”*

# Better Every Day: Our Evidence-Based Approach

Our Program and Monitoring & Evaluation teams are always listening to our data, the teams on the ground, and the women themselves to improve our work and be 'Better Every Day.' We are constantly learning, innovating, and creating programs and projects that best exemplify our three pillars within the ever-evolving state of the world. In 2022, we learned a lot from our pilot projects that we are excited to share with other organizations, researchers, and our generous supporters who make it possible.



## Building Wealth-Generating Pathways: Business Booster & Advanced Training Curriculum

As capacity building along the off-grid renewable energy value chain is vital for long-term operation and sustainability, our model includes a twelve-month training curriculum coupled with ongoing mentorship for women entrepreneurs.

Additionally, we believe that to increase gender equity, it is essential to provide Solar Sister Entrepreneurs who are committed to growing their businesses the opportunity, support, and skills to advance in the clean energy marketplace. Upon completing the core Solar Sister curriculum, we received feedback from entrepreneurs that they wanted additional advanced training to grow their businesses.

### Project:

In 2022, Solar Sister continued to create wealth-generating pathways for women by providing our Advanced Training Curriculum to all entrepreneurs who have been with Solar Sister for at least two years. This training builds on the already robust core training curriculum provided by Solar Sister but focuses explicitly on growing a business rather than building a business. The training curriculum encompasses 12 modules that focus on building essential skills, including product knowledge, marketing, sales strategies, and financial literacy.

In 2020 and continuing into 2022, we implemented our “Business Booster” program by selecting experienced Solar Sister entrepreneurs



to help them grow their Solar Sister businesses and increase their income. Business Booster Entrepreneurs received marketing materials and Solar Sister IDs to help their businesses look and feel more formal, along with tailored one-on-one business coaching and access to a revolving zero interest-rate credit mechanism, whereby they could purchase solar products through a 30-day loan of up to \$200.

### Results:

Across the different cohorts participating in the initial pilot, half of the entrepreneurs doubled their sales from the year before starting the program. Additionally, Solar Sister rolled out a smartphone and accompanying digital literacy program to 100 entrepreneurs, most of whom were in Business Booster cohort one. This program further increased their business growth. Entrepreneurs who received smartphones saw a 23% increase in sales after receiving the phones, explaining that they helped them connect to new customers, to Solar Sister staff, and each other; to market and sell solar and clean cooking products digitally; and to access information that will help them grow their businesses.

## Digitizing Entrepreneurs Businesses

Solar Sister's Digital Literacy Program was designed to provide our entrepreneur's knowledge, skills, self-confidence, hardware, and software. As part of this program, Solar Sister provides entrepreneurs who have smartphones with digital literacy training – teaching them how to use this technology to digitize and grow their businesses. Modules cover topics such as online marketing, sales, and using social media for business. As part of our digitization program, in 2022, we also gave entrepreneurs access to data for the first time to help them identify where ideal customers live. This, in turn, allows the entrepreneurs to sell more efficiently, thus driving access to clean energy solutions.

### Project:

In 2022, we scaled up Solar Sister's digital literacy program to 212 entrepreneurs.

The digital literacy training, piloted with 100 entrepreneurs in 2021, was refined in 2022 based on feedback from entrepreneurs and Business Development Associates (the field staff who recruit, train, and support them). Training content in 2022 focused on how social media can be used to develop and showcase personal brand techniques and how entrepreneurs can craft tailored and meaningful posts to promote and grow their businesses. It also taught our entrepreneurs how to use popular apps like WhatsApp to communicate with customers and generate new sales. The training content incorporated examples from entrepreneurs and several activities focused on practicing and using digital platforms.

In addition to the in-person digital literacy training this year, we piloted the use of an app called Learn.ink. This online learning app allowed entrepreneurs with smartphones to log in and receive additional mini-lessons, which reinforced the in-person class content.

### Results:

Initial feedback from the 2021 digital literacy pilot was very positive. Entrepreneurs claimed that the training made selling easier and more efficient, as they could now market and sell products online. According to our entrepreneurs:

*"The phone has helped me to arrange meetings with other community women groups that have resulted in me making more sales."*

*"Sending SMS has helped me notify my customers about my new products and has made my job easier."*

In addition to the feedback from the pilot cohort, we are tracking and measuring sales for all entrepreneurs who have completed the digital literacy training to better understand the program's impact in 2023 and beyond.



# Leading the Global Industry

As a leader in women's empowerment and clean energy, Solar Sister actively participates in key industry events to advocate for women, clean, affordable energy, and the burden women face on the front lines of climate change. In 2022, we made the most of attending these events to further our impact and reach.

## Solar Sister made a Splash at the GOGLA Off-Grid Solar Forum in Kigali, Rwanda



From Oct 18th-20th, our team joined the premier meeting of the off-grid solar sector to share knowledge and showcase Solar Sister's goals and achievements. This event aimed to accelerate the growth of the global off-grid solar market, and thus our participation was key for us to continue working towards universal energy access by 2030.

Solar Sister Kenya Country Director, Finorah Manyala, educated the audience about achievements, challenges, and opportunities for improving gender equality in the clean energy sector with her panel discussion.

## Solar Sister COO, Olasimbo Sojinrin, Speaks at COP27

Solar Sister COO Olasimbo Sojinrin attended COP27 in Egypt in November to observe how gender equity, climate justice, and energy access were addressed.

Olasimbo said she didn't get the "African COP" resolution she expected. *"Three-quarters of Africa lacks modern energy. Women shoulder energy poverty in most of the communities where Solar Sister works."*

On a positive note, a financial system to compensate vulnerable nations for *"damage and destruction caused by climate-induced disasters"* was agreed upon.





# Solar Sister in the Press

In 2022 Solar Sister was featured in numerous articles and podcasts. Here are some highlights: Click on each title to read more!

## BBC: The Conversation

What role are women playing in providing solar power and ensuring that vulnerable communities have access to cheaper and cleaner energy?

## Global Citizen

How Solar Sister Entrepreneurs Find Economic Empowerment While Fighting Poverty.

## Impact Investor

Profile: Katherine Lucey is chasing away the dark, one 'solar sister' at a time.

## Menafin

Solar Sister Won Gold in the Inaugural Anthem Awards in Sustainability, Environment, and Climate

## True Africa

Can Green Energy Power Africa's Future?

## Africa Business

Less Hypocrisy and More Investment

## Yahoo Finance

Solar Sister Is Addressing Gender Equity, Energy Poverty, and Climate Change



To read our latest entrepreneur stories, please visit [The Latest - Solar Sister](#)

# What Will the Future Bring?

Looking ahead to 2023, we are focusing on expanding our reach, programs, and impact across Africa.

## Increasing Energy Access In Kenya

Following the merger, Solar Sister will continue building on the success of LivelyHoods and leveraging their market knowledge and experience to grow and develop Solar Sister's proven business model across rural areas in Kenya while continuing LivelyHoods operations in urban and informal settlements.

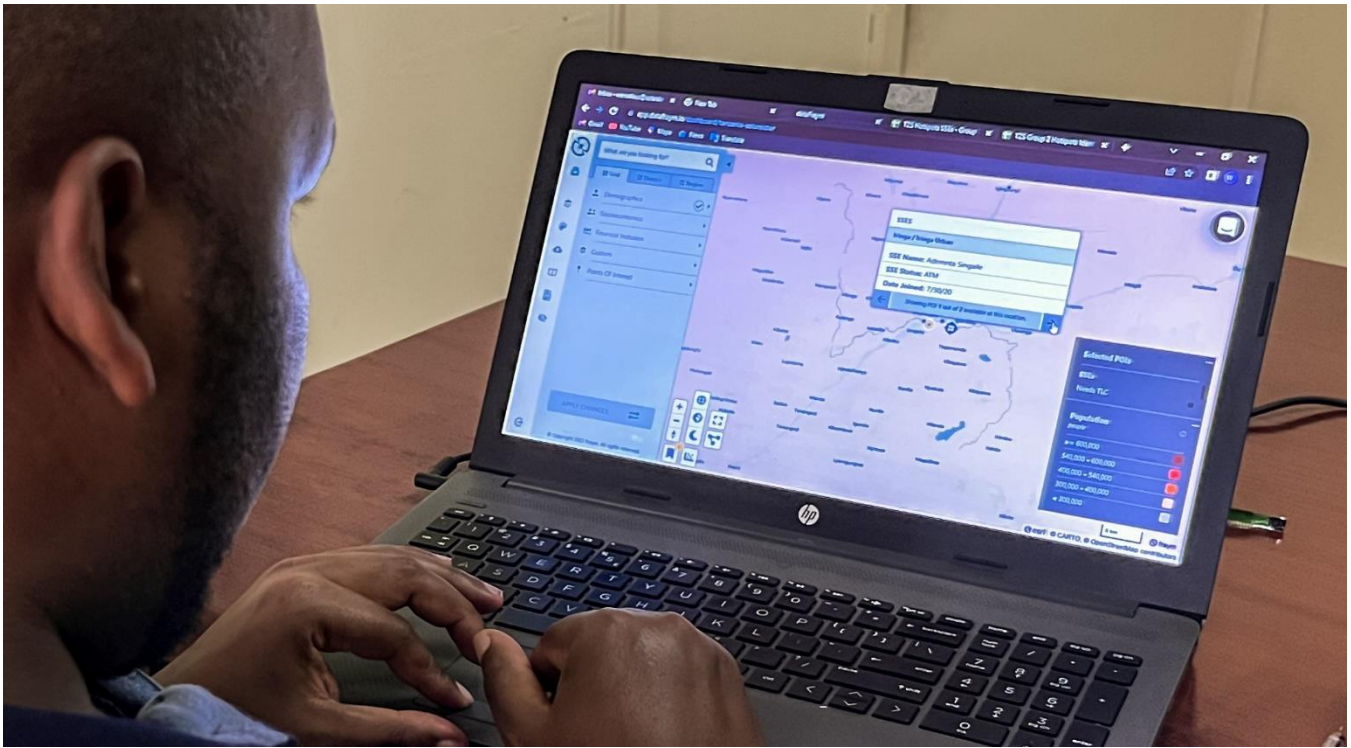
Additionally, in 2023, we plan to expand the Solar Sister model across ten counties. Our target is to recruit and train 10 Business Development Associates, who will recruit and train 160 women entrepreneurs by the end of 2023.



## Increasing Gender Equity through Informal Savings Groups

Through a partnership with Signify and BRAC Microfinance, Solar Sister learned that consumer financing is essential to getting larger/more expensive clean energy products into the hands of last-mile consumers. Women, in particular, often lack access to consumer credit through traditional sources.

In 2023, Solar Sister will build on the success of past consumer financing partnerships and will test the use of informal savings groups and community banks as a source of consumer financing for women to purchase larger solar products like solar home systems and clean cookstoves. This will enable Solar Sister to reach even more customers as part of its mission to eradicate energy poverty.



## Increasing Capacity Building through Expansion of our Business Booster and Digital Literacy Training

Following the success of the Business Booster and the Digital Literacy program pilots in 2022, Solar Sister will be deploying these programs at scale across the markets we operate in. We are targeting to recruit 300 new Business Booster Entrepreneurs (150 each in Nigeria and Tanzania), and will plan to scale the program in Kenya in 2024 after our initial cohort of entrepreneurs there have completed one year with Solar Sister.

We will continue to roll out the digital literacy training program with the existing entrepreneurs in both Tanzania and Nigeria and will scale the program in Kenya with both existing sales agents and newly recruited entrepreneurs this year.

# 2023 Leadership

**Katherine Lucey, Chief Executive Officer, and Founder**  
**Olasimbo Sojinrin, Chief Operating Officer**  
**Fatma Muzo, Country Director, Tanzania**

**Finorah Manyala, Country Director, Kenya**  
**Chioma Ome, Country Director, Nigeria**

## Welcome to Our New Board Members



Betsy Henderson



Joanita Nemayian  
Gakami



Perry Hewitt

## Board of Directors

Betsy Henderson  
Brian Waswani Odhiambo  
Elizabeth Kaiga  
Joanita Menayian Gakami  
Katherine Lucey

Liberata Mulamula  
Linda Rich Wanerman  
Lindsay Greer  
Noa Gimelli  
Pam Darwin

Perry Hewitt  
Selam Gebru  
Tania Laden  
Todd Mitchell

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To learn more about our leadership, please visit [Our Team - Solar Sister](#)



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