

2024
EDITION

yiya Engineering
Solutions

ANNUAL REPORT



yiyasolutions.org



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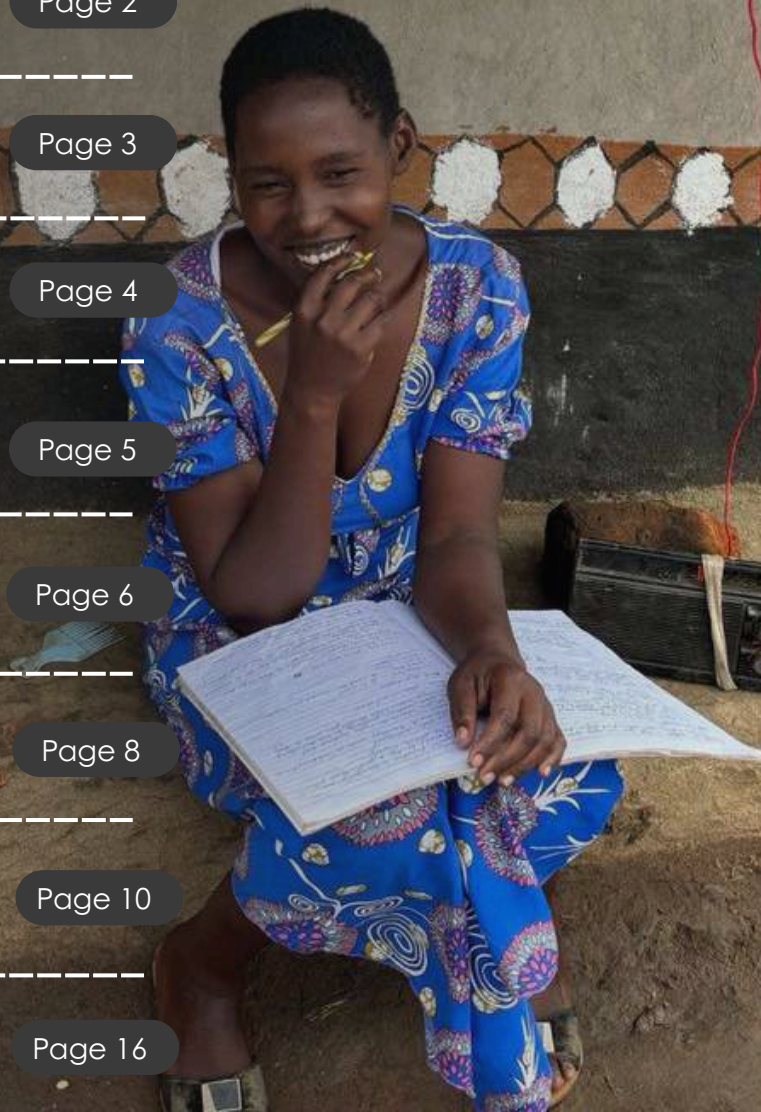
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LETTER FROM YIYA'S CO-FOUNDERS

Dear Yiya Family,

What an extraordinary year 2024 was! From winning the prestigious Tools Competition, to Samson's return from the Obama Scholars program at Columbia University, to hosting our first-ever UNGA side event, last year was full of milestones. But the most powerful highlights come from the young people whose determination continues to inspire everything we do.

Take **Winnie**, a teenage girl with a spinal disability who couldn't attend traditional school. Through Yiya AirLearning, she accessed lessons via radio and a basic keypad phone, built a solar dryer, and launched a small agricultural business. Or **Marion**, a teenage mother of two who had lost hope of continuing her education. After completing our remote course, she earned a certificate and now supports her family through the business she built again using a solar dryer she constructed with skills learned through Yiya.

These stories are made possible because we stay grounded in our **four guiding pillars**:

● Equitable Access

We believe education must reach even the most underserved. That's why our learners don't need the internet or smart devices just a radio and a basic phone. In the past 5 years, we have served over 37,000 youth; many are out of school and live in remote areas.

● High Quality

We don't compromise on rigor. Our experiential, skills-based courses are accredited by the Ugandan Directorate of Industrial Training. Our 41% course completion rate is *more than double* the global average for remote online learning (typically 10-20%).



● Human-Centered

Our **learners are at the heart of everything**. Each message, lesson, and follow-up is designed to make them feel seen and supported. Whether they're raising children or managing disabilities, we meet them where they are.

● Efficient Impact

We know that **scale in Africa requires radical efficiency**. With more demand than we can currently serve, often double the number of available spots, we're advancing our plan for **long-term sustainability**, where Yiya AirLearning becomes substantially self-funded via hosting client content on our learning platform.

As we look ahead, we're energized by the vision of a future where every young person in Uganda, and across East Africa, has access to high-quality, vocational education that leads to dignified, fulfilling livelihoods.

To all our partners and funders: thank you. Your belief in us is what makes this work possible.

Apoyo Matek (thank you so much)!

With deep gratitude,

Erin & Samson

Co-Founders, Yiya

The Education Challenge: Africa's Next Frontier

100 million

children in Sub-Saharan
Africa are out of school
(UNESCO)

70% of youth

in rural Uganda don't go
to secondary school

4.2 million

Ugandan youth (15-30) are
not in education,
employment to training
(NEET), according to the
Uganda Bureau of Statistics



YIYA's JOURNEY

2020 - 2024

Remote
Learning
(AirScience)

2016 - 2019

Yiya is founded, and runs in person STEM classes

2020 - 2024

37,000 students

Launch of Yiya AirScience, providing remote lessons via radio & keypad phones

2025 and beyond

AirLearning will be launched to pilot scale model

INSIDE
AFRICA

Featured on 

2016-2019

In person
classes

2025 and Beyond

Yiya
AirLearning

OUR

BELIEF



At Yiya, everything we do stems from our core belief that:

Africa's greatest

resource is the

limitless potential of its

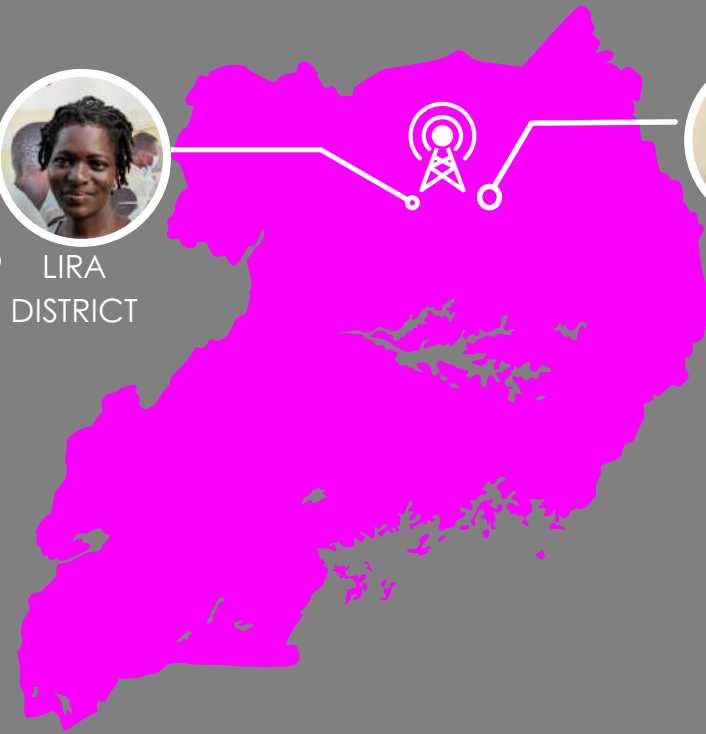
youth.



LIRA
DISTRICT



GULU
DISTRICT



Nowhere is this more true than in Uganda, where youth make up over **75% of the population**, representing one of the youngest populations in the world.

We believe education is the key to unlocking this potential. However, such education must be bold, practical, and aligned with the future. That future is the youth.

More than just a STEM course. It's a launch to new beginnings

Curriculum Improvement

We increased course completion **by 26%** through Human-centered curriculum design and phone interface development. **1,386** learners qualified for certificates!

2,931

Total Enrolled Students in the course



41%

Course Completion



1,386

Learners Qualified for Certificates



350

Learners Qualified for certificates of Achievement



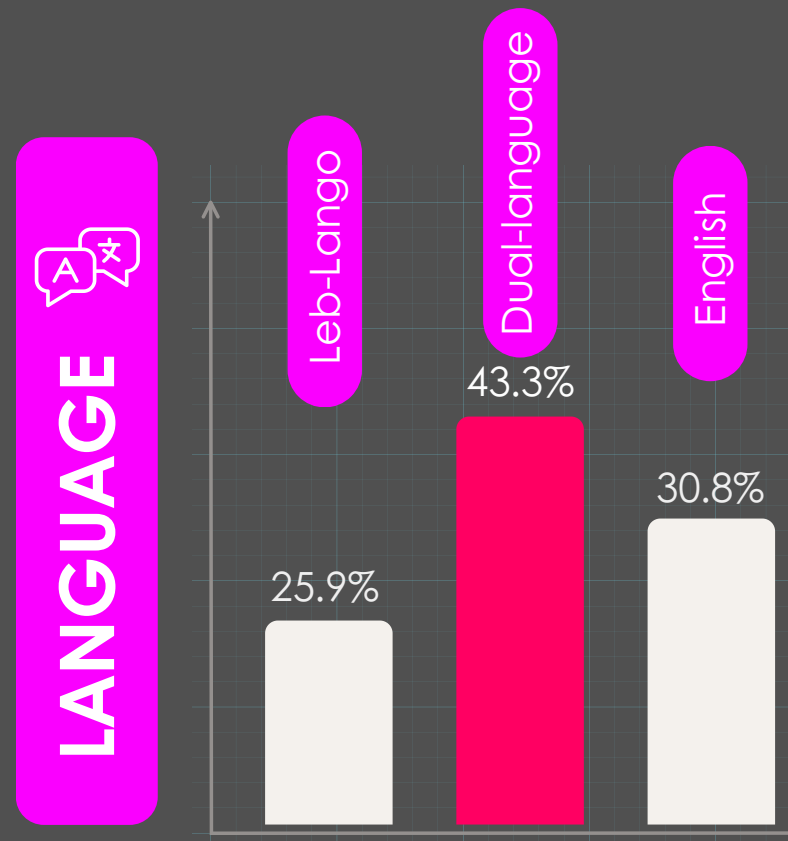
Ayume, standing next to the Solar food dryer she created



LEARNINGS

Student Enrollment

In 2024, we saw remarkable participation and engagement from students across various cohorts. The demand was overwhelming, with over 6,000 students applying. We enrolled 2,931 students across three cohorts: **English (30.8%)**, **Leblango (25.9%)**, and **Dual-language (43.3%)**.



1,330 Female learners enrolled!

Female



1,330

GENDER ♀

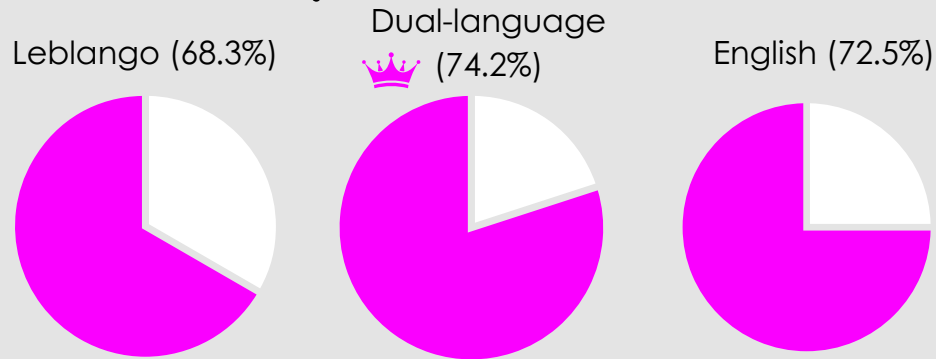


Engagement & Participation

Course engagement remained strong, with students in the Dual-language cohort leading the way at 74.2% engagement, followed by English and then Leb-lango. These numbers reflect a commitment to learning, and excitement about the dual-language learning option. Learners in the Dual-Language cohort could switched the language of instruction between English and Leb-lango.



ENGAGEMENT STATS

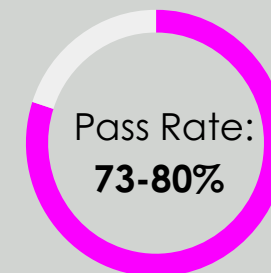


Yiya's STEM curriculum was translated into Leb-lango for the first time for this course, which also the first time that a STEM course has been provided in Leb-lango! While we predicted this would make the content more accessible, we learned that literacy was still a barrier for those youth who were only comfortable in their local language, and not in English. This is the reason for the lower engagement in that cohort. As a result, we are working on features that would make our courses accesible even for low-literacy learners.

Performance Analysis

Students who listened to radio lessons before answering quiz questions exhibited higher overall assessment performance, with pass rates ranging between **73-80%** on regular questions and non-attempt rates below **1.2%**. On the other hand, students who struggled with coding questions showed significantly lower pass rates (**26-37%**) and higher non-attempt rates (**38-48%**), emphasizing the importance of targeted support in technical problem-solving skills.

High Performers



Demonstrate they listened to the radio lesson by entering a code given in the lesson.

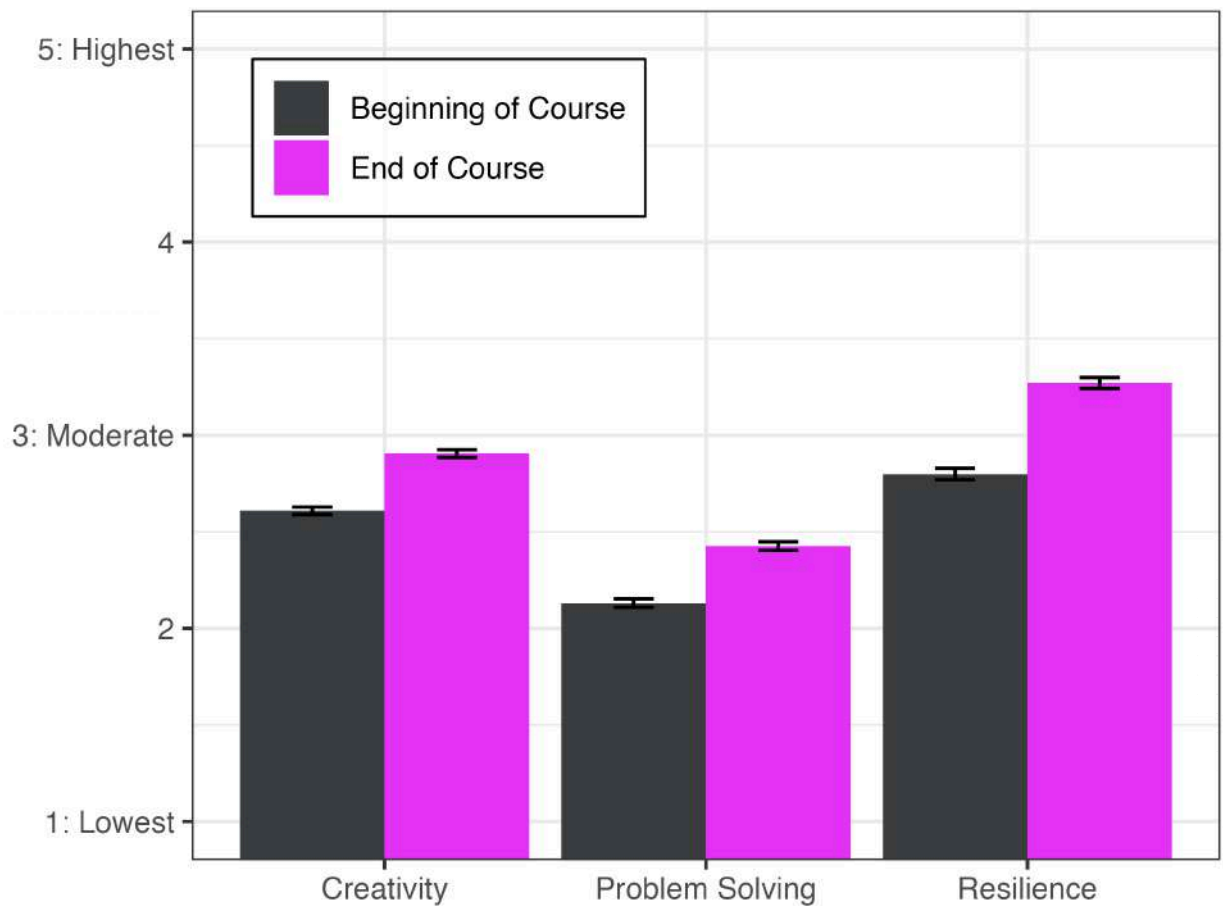
Lesson & Test Performance

Lesson & test performance data highlighted the Dual-language cohort as the best-performing group, showcasing the benefit for learners to have the flexibility to learn in both English and local language, at will.

LEVERAGING OUR IMPACT

Since 2020, Yiya AirScience has impacted over **37,000 learners**, primarily out-of-school youth in rural Uganda.

32,000+
out of school



From our Research Partners at Carnegie Mellon University

At the midpoint of Course 4, a midline assessment showed that both components of the course radio broadcasts and interactive messages on the phone interface played an important role in supporting students' understanding. Students who were highly engaged in the broadcasts demonstrated stronger conceptual understanding of resilience, offering more advanced examples aligned with course objectives.

However, when predicting final exam scores, the impact of completing practice questions on the phone interface was 2.29 times greater than that of listening to radio broadcasts. Specifically, completing all 36 sets of practice questions predicted a 30.4-point increase in scores, compared to a 13.2-point increase from listening to all 36 broadcasts. Overall, this shows that both components of the course broadcasts and interactive messages are important for the learning experience and related outcomes.

30.4-point
increase from
completing
practice questions

13.2-point
increase from
listening to
broadcasts

Final Exam Scores



30.4↑

Points increase as a
result of completing
lesson questions on
the phone interface.



STORIES

“

I had dropped out
of school but now I
am back to studies
with Yiya
AirScience

”

SARAH

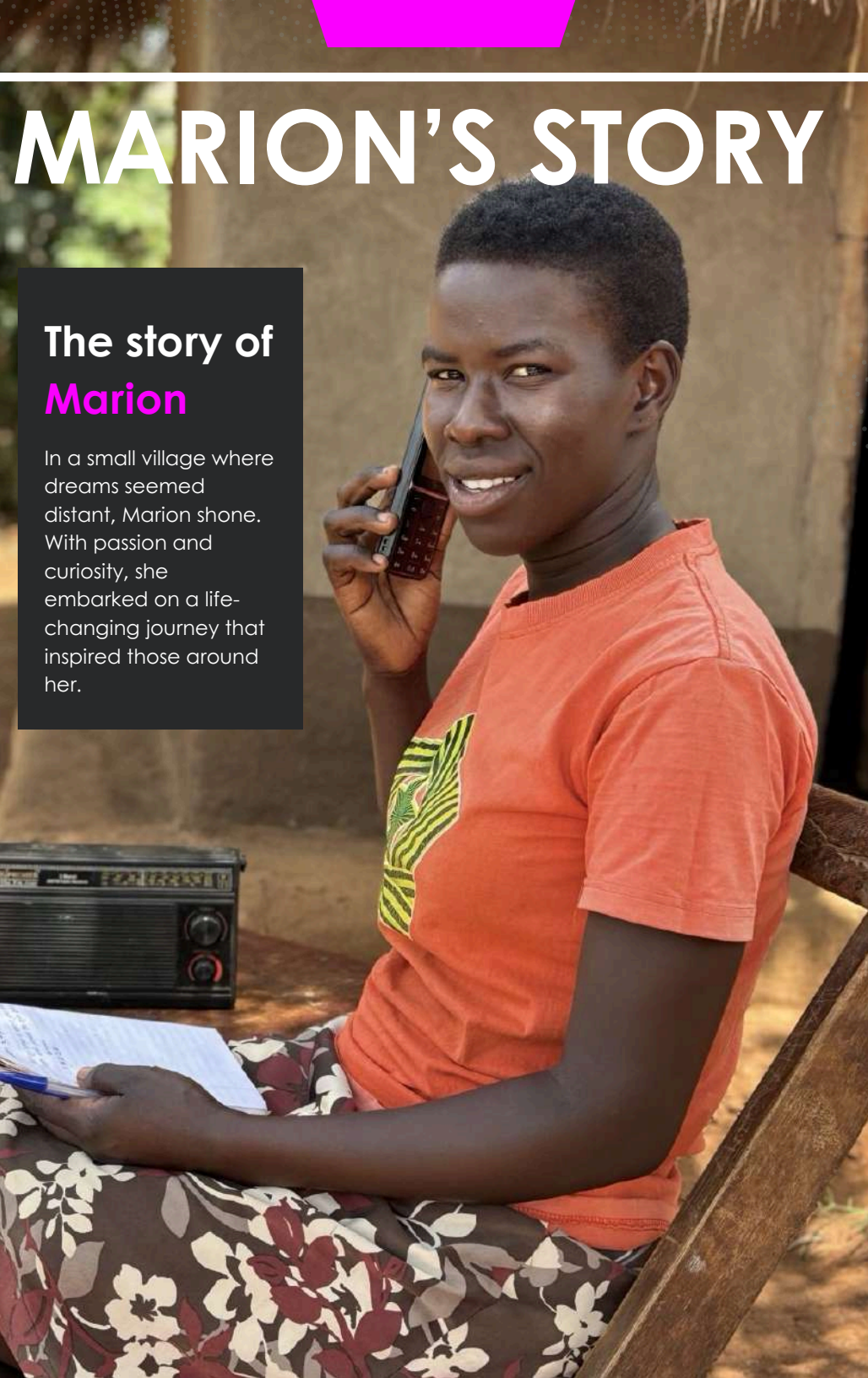
Sarah

Yiya AirScience Learner

MARION'S STORY

The story of Marion

In a small village where dreams seemed distant, Marion shone. With passion and curiosity, she embarked on a life-changing journey that inspired those around her.



“

Yiya opened doors to many opportunities that I wasn't aware of

”

Marion, an Airscience Learner narates

Hope on the Air: A Young Mother's Rise Through Yiya's Program

At just 19 years old, Marion had given up on education. Married with two children and facing domestic violence, she believed her future was set—until she heard a Yiya radio talk show. Inspired by the message that education was still possible, she took a bold step and enrolled in Yiya's program.

Balancing motherhood and studies wasn't easy, but Marion persevered. When she shared her story on the same radio platform that changed her life, the impact was immediate—Yiya's registration system spiked with new enrollments that day. She completed her course with top marks, eagerly awaiting her certificate and a chance to compete for Yiya's cash prize at the showcase.

TEDDY AYUME

12

Teddy Ayume found herself at a crossroads after completing S.4 at Alooi Comprehensive in 2019. For a long time, she felt stuck at home, searching for purpose and direction. However, everything changed in July when she heard about the Yiya AirScience program on the radio. Intrigued, she dialed the code and joined the program, initially unsure of what to expect.

Teddy became deeply engaged in the lessons, transforming her initial curiosity into a passion. By the end of the course, she had developed a remarkable innovation: **a solar food dryer.**

With the new technology, Teddy can dry fruits like mangoes and pineapples and plans to start a mushroom farm. The Yiya program has significantly impacted her life, empowering her to educate fellow farmers about the solar food dryer to combat food spoilage and excess production. She even sold her first solar food dryer to a cocoa farmer, marking the beginning of her entrepreneurial journey. Teddy's journey highlights the importance of education and innovation, making her a source of hope and inspiration for her community.

“

It's Yiya that gave me hope of starting my mushroom business

”



“

Getting a second go in life
is an opportunity I didn't
expect to get !

”

JANE
APIO

Jane Rebecca from Bar Subcounty has always faced challenges that many of her peers do not. Yet, her determination and enthusiasm shine brightly, especially during our recent course aimed at educating children about **problem-solving** through practical projects. This year, the program focused on building solar food dryers, a solution designed to help preserve food and reduce waste in the community. Jane Rebecca, despite her hearing impairment, became an active participant through always sitting somewhere behind the house with minimal noise and having her radio volume at 100%, demonstrating that challenges do not define one's abilities.

Jane shares that she has gained many valuable skills from this program and now she can not believe the confidence she has to even stand in front of people and tell her story, she is positive that with skills gained from Yiya AirScience, she will be able to generate enough income someday and support herself to become an even better engineer like she has always dreamed.



MEET THE

TEAM

That makes it all happen

Co-founder

**SAMSON
WAMBUZI**

Chief Innovations
Officer/ Co-Founder



Co-founder

**ERIN
FITZGERALD**

Chief Executive Officer/
Co-Founder



**ANGELA
FORCIER**

Chief Operations
Officer



**SHEEBA
NIWENSIIMA**

Senior Manager,
Product & Programs



**SHARIFAH
NALUSWATA**

Monitoring, Evaluation and
Learnings Specialist



**MICHAEL
ARIKOSI OKURUT**

Product
Specialist



**FELISTY
ALAKA**

Program Delivery
Coordinator



**HARRIET
ABER**

Community Engagement
Coordinator



**EDITH PEACE
CANMOO**

Field Consultant,
Lira



**NIMROD
MUHANGUZI**

Senior Program
Manager



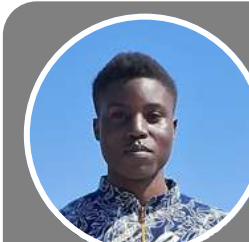
**DAPHNE
NASASIRA**

Finance
Officer



**EDRINE
SSEMWANGA**

Operations
Specialist



**JAMES
SSEBISUBI**

Design
Consultant

Memorable Moments



FEB

APR

JUL



SEP

OCT

DEC

EXPENSES

Over
\$300k

Going directly towards providing affordable education to our last mile learners.



Fundraising
USD 38,586

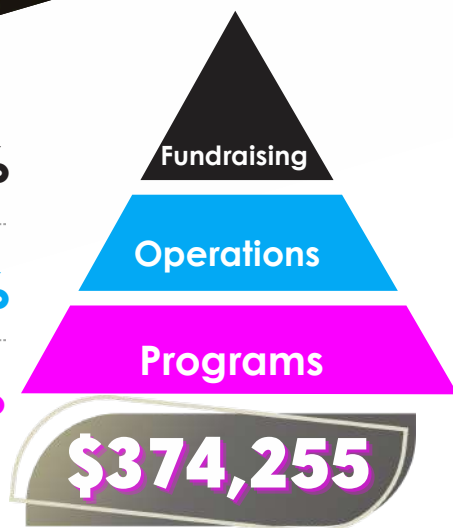
10%

Operations
USD 50,814

14%

Programs
USD 284,855

76%



INCOME SOURCES

\$588k

USD 588,408

TOTAL REVENUE



\$175k

USD 175,000

Awards

\$57k

USD 57,316

Carried over from 2023



AWARDS

USD 175,000

30%



FOUNDATIONS

USD 304,480

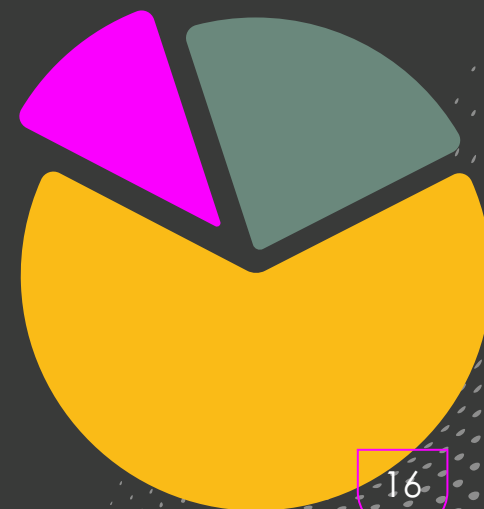
52%



INDIVIDUALS

USD 51,612

9%



16

Alan Gardner
American Online Giving Foundation
Boris Bulayev
Bret Rubin
Caroline Lowenthal & Sam Ribnick
Diana Husa
Dovetail Impact Foundation
Ellie Decker
Esther Ann Miller
Jacobs Foundation
Katheline Ruiz
Kathryn Schumacher
Libra Philanthropies
Louise and Jerry Ribnick Family Philanthropic
Fund
Matt Lowenthal
Meaghan Fitzgerald
Nabil Laoudji
Network for Good
Niall Nethercote
PayPal Giving Fund
Rachel Price
Rachael Buck
Richard Clay
Richard Sestile
Rick Widdifield
Schwab Charitable

THANK YOU TO

OUR DONORS



Sean Fitzgerald
Segal Family Foundation
Someone Else's Child Foundation
The GSR Foundation
The Learning Agency
Vanguard Charitable Endowment Program
Xin He

OUR Partners



Natembea
Foundation



hundrED



USAID
FROM THE AMERICAN PEOPLE

Carnegie
Mellon
University



MAKERERE UNIVERSITY



Oku'yiya

To solve an old problem
in a new way.

To hustle.



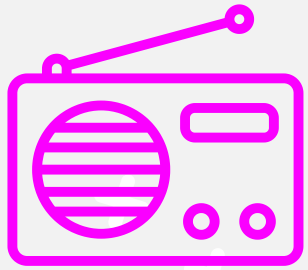
We envision a world where the 1.3 billion people living in Africa have a seat at the table in innovative fields globally, where African perspectives, knowledge, and skills help create new solutions to the world's biggest challenges. We envision a future where African technologies drive a powerful African economy that provides productive, fulfilling livelihoods for all its inhabitants.



Luganda Okuyiya

Leb-lango Tet

English Innovate



REIMAGINING EdTech

