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LYNETTE'S STORY

Lynette is an 11-year-old girl from Arusha, Tanzania. She loves to watch cartoons and encourage her dog to get into trouble. She hopes to be an English teacher when she grows up.

Lynette was born with spina bifida, a developmental condition which causes a baby's spinal cord to develop improperly in the womb, leading to a gap in their spine. She received surgery for her condition, but this left her spine curved dramatically forward. This makes it nearly impossible for her to sit comfortably in a chair with a straight back.



If Lynette received a simple hospital wheelchair that didn't provide support for her unique spine, her condition would get worse over time as her back bent further.

An appropriate wheelchair can be made for most people with small adjustments to a core design. However, sometimes providing a useful wheelchair requires experimentation, creativity, and customization.

To accommodate Lynette, we combined knowledge of human anatomy, posture, wheelchair construction, and her medical history. The resulting chair follows the curve of her spine, allowing her to rest her upper back on the pad so that she can relax and be supported. The final wheelchair is a tool meant for Lynette and Lynette only.

Very few people in East Africa have access to this kind of specialized care and equipment. In this report, you will learn what Kyaro has done in 2023 to address this.

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A NOTE FROM OUR CEO

Dear partners and friends,

2023 was a year of learning and growth at Kyaro Assistive Tech. As we enter our third year of operations, it is an exciting time to reflect on and share all that has changed. The year challenged us in new ways as we worked to scale our work and create stable and sustainable systems ensuring access to appropriate, appealing, and affordable assistive technology in East Africa. The year also offered us opportunities to learn, innovate new products, grow our team both in size and capacity, and refine our approach.



It takes more than manufacturing appropriate assistive devices to make them accessible to the millions of people who need them. From the beginning, we worked to supplement our manufacturing work with public outreach, collaboration with other organizations, product designs made to inspire, and a deep knowledge of our users. Most importantly, we sought to learn from and build on the lessons learned and progress made by other organizations.

Thanks to your trust and support, we have seen success in this approach over the past two years. In 2023 alone, we distributed more than 450 assistive devices and designed several new ones. Nevertheless, we still see inappropriate devices being distributed and there are still millions of people lacking the devices they need. There is more to be done.

This year, we considered what else would be needed to ensure a robust, sustainable assistive technology industry in East Africa. We were lucky to meet with leaders in the field of assistive technology and public policy like Shonaquip Social Enterprise and ATscale - the lessons we learned informed our updated mission statement and approach, which you will learn more about in this report.

We believe that our revised strategies will bring us closer to our vision: a world in which everyone has access to a life of autonomy, dignity, and community.

My deepest gratitude to all our partners, clients, donors, suppliers, and friends for your love, trust and support. We are because you are!

Special thanks to the Kyaro team and rockstars: Sudi, Eamon, Nelson, Magdalena, Richard, Elibariki, Milka, Malika, Nepomuseni, Catherine, Linus, Jonas, Joshua, and Juma. Thank you for enabling Kyaro to positively change thousands of lives in 2023.

Sincerely,

Colman Ndetemba
Co-Founder and Chief Executive Officer

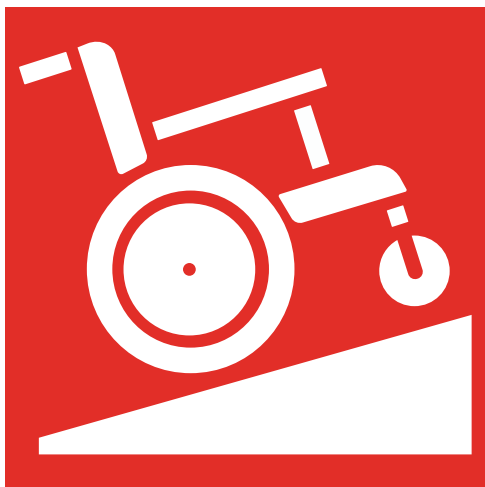
2023 AT A GLIMPSE

For us, this year was about learning, refining, and planning. In 2022, our design, provision, and manufacturing work established us as one of the leaders in assistive technology in East Africa. In 2023, we began to form relationships with a vast, inspiring community of organizations committed to other facets of bringing assistive technology to the region and developing nations as a whole.

Based on the deeper understanding we have gained of the space and our partners, we have adjusted both our mission and our plans for the future, though we will continue to do everything that brought us this far. Our new mission statement is:

To make appropriate assistive technology accessible in East Africa

On page 19, you can read more about how we plan to advance this mission in the coming years.



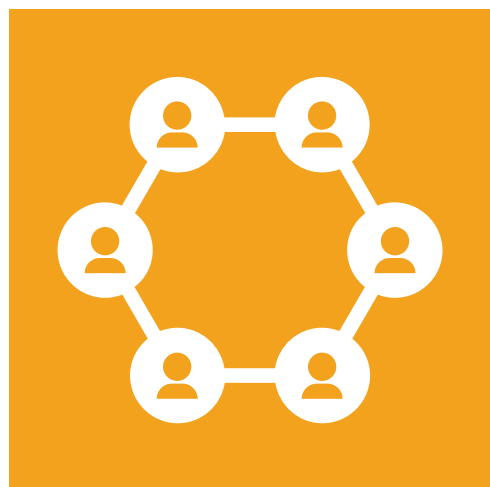
Devices Delivered:
452



Annual budget:
\$103,000



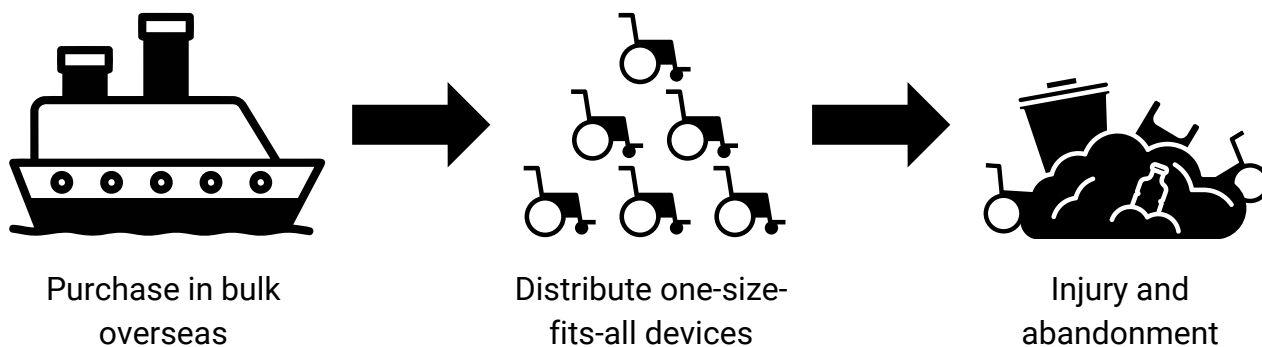
Volunteers:
18



Team size:
13

WHAT MAKES KYARO DIFFERENT

Currently, the most common assistive device distribution systems in East Africa work like this:



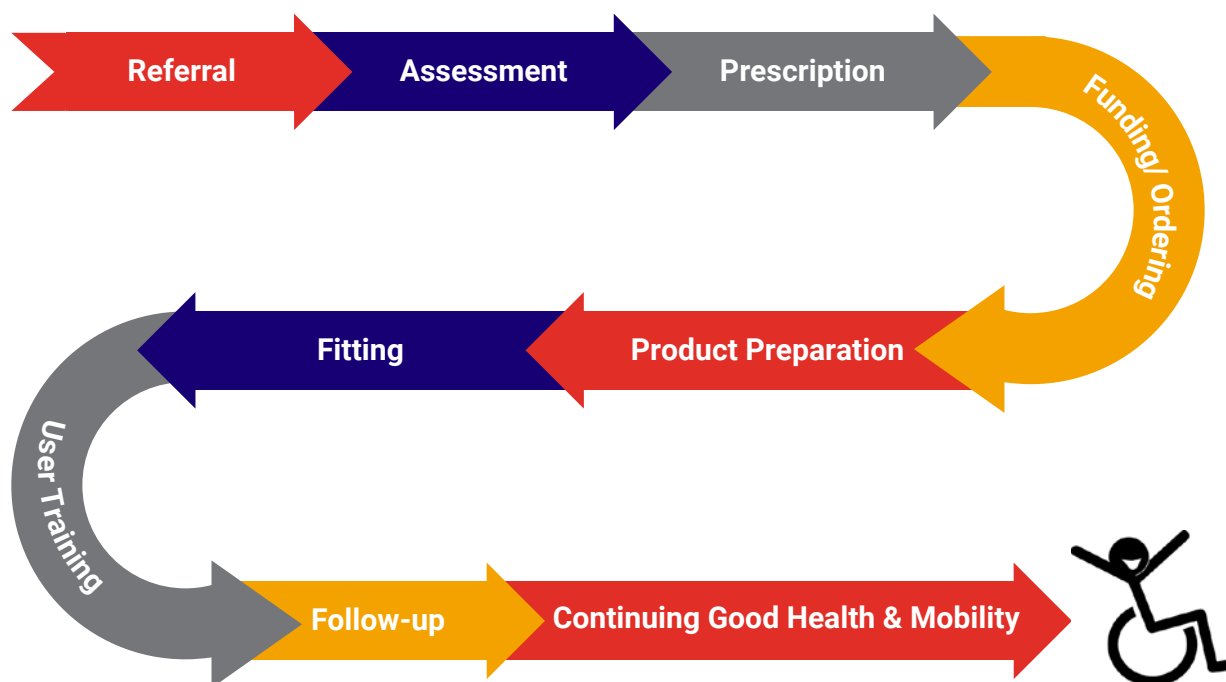
Organizations purchase (or receive as donations) bulk orders of devices from India or China. They are generally one-size-fits-all options, not tailored to the medical condition, lifestyle, environment, and goals of their end users as they would be if they were delivered in a wealthier nation.

Left with a tool that does not address their needs, users will sell, abandon, or lose the device. Sometimes, organizations will then return, find the user without a device, and provide another, equally ineffective one. Fortunately, there is another way.

Responsible Distribution

A common misconception is that for people in poverty, or even simply living in a place where poverty is common, a cheap, lesser solution is still better than nothing. When it comes to assistive technology, we know that this is typically not true. Giving someone an inappropriate device is not just a compromise. It is a dangerous and wasteful exercise.

When distributing devices, Kyaro follows the comprehensive 8-step system recommended by the World Health Organization, developed based on years of research and testing with users in developing countries.

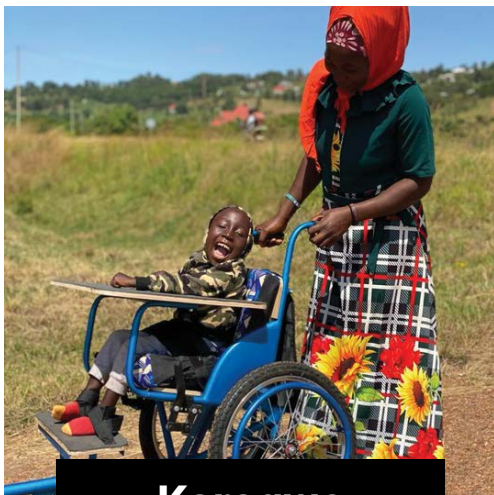


OUR REACH IN 2023

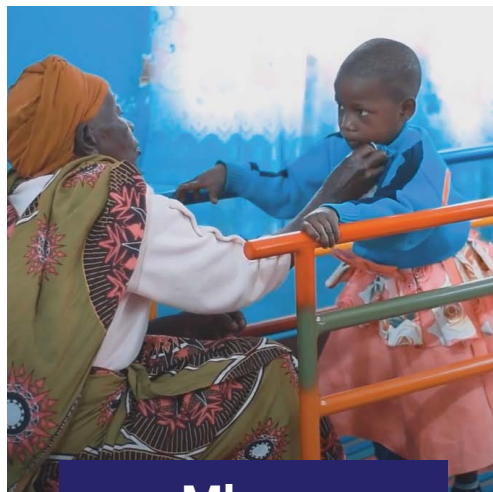
This year, our work took us to new and exciting places in Tanzania and beyond. We were very pleased that our device provision partners helped us to identify people in need all over East Africa, from large cities to isolated villages. Here are a few examples:



Arusha



Karagwe

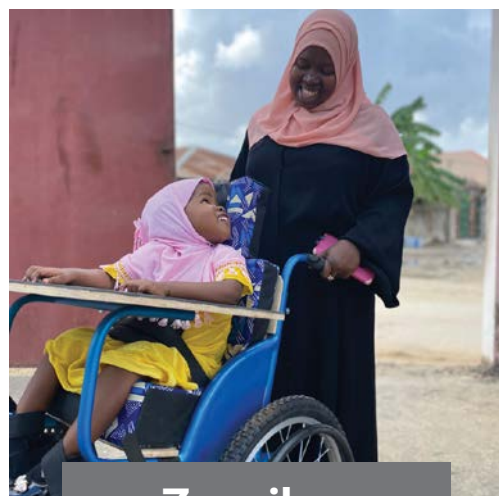


Mbeya





Kilimanjaro



Zanzibar



Mtwara



Explore stories of our users here!

MILESTONES

Volunteer Program

This year we invited five engineering students, and one kinesiology student, from the United States to work with us in Arusha. Together, they developed designs for new assistive devices, made new tools for us to use during the fitting and training of our users, and built on the skills of our Tanzanian staff.



From left to right: Volunteer Linda Hu, Kyaro Tailor Gift Masaka, Volunteer Tara Lee, Volunteer Olivia Chang, Kyaro Communications Officer Malika Pyarali, Volunteer Isha Goyal, Kyaro Finance Officer Milka Peter, and Kyaro Tailor Magdalana Dominic

One group of volunteers focused on our wheelchair tricycle attachment. This device lets people travel long distances in their wheelchairs by pedaling with their arms, and can be removed when the user reaches their destination. Previous models were harder than we liked to attach and detach from a chair. Our volunteers designed a new attachment method which saves time and energy for our users.



Volunteers work with Kyaro Technician Jonas on an iteration of the tricycle attachment

Another group worked with physical therapists and social workers in Tanzania to develop a design for a postural support seat for very young children with muscular disabilities. They tested the design with one of our partner organizations, Sibusiso.

One of the most encouraging aspects of the summer was the relationships that our volunteers and our Tanzanian staff formed. Despite coming from vastly different cultural backgrounds, the technicians in our shop and the volunteers were fast friends, and the lessons they took from one another will last a lifetime.

This was a wonderful affirmation of our belief in international and cross-cultural collaboration as a powerful force for good.



“

I've grown so much this summer from being in Arusha, getting to work with a small team on a project where I can directly see the impact, and engaging parts of my brain that I don't usually, as in learning a new language and engineering with fewer resources. It made me internalize what my professors have been telling us: that talking to the stakeholders throughout the design process is hands down the most important thing you can do.

- Isha Goyal, Olin 2025

Refugee Camp Order

Early in 2023, we completed one of our largest orders to date, 110 wheelchairs to refugee camps in Kigoma. We were honored to collaborate with the Norwegian Refugee Council and Jesuit Refugee Service to serve the beneficiaries of these camps.



Kyaro's CEO, Colman with George from the UN High Commission for Refugees on their way to the delivery



Wheelchairs lined up and ready for distribution

Feature on Azam TV

In an exciting moment for us, we found ourselves in the national spotlight on Azam TV's Kijana Leo segment. The Jakaya M. Kikwete Foundation reached out to us to explore the profound impact of assistive devices on the lives of individuals with disabilities in Tanzania.

This collaboration let us share our work with a large audience who otherwise might have no exposure to issues related to disability and assistive technology. The program also gave individuals with disabilities, as well as their parents, teachers, and caregivers, a chance to speak for themselves, an opportunity not often afforded to these groups in Tanzania.

Participating in this program let us further our goal of fighting the stigma around disability in East Africa by showing inspiring stories first-hand on a large stage. It spread a message of possibility and dignity in a place where that message was sorely needed.



Scan the QR code to watch the feature!



From left to right: Colman Ndetembea, Shonaquip founder Shona McDonald, and Kyaro's COO, Eamon O'Brien

This year, our founders, Colman and Eamon, paid an inspiring visit to our partner organization in South Africa, Shonaquip Social Enterprise.

Since 1992, Shonaquip has been a leading provider of appropriate wheelchairs and mobility devices in Africa and has implemented provision systems to make these devices accessible to all South Africans.



Colmans learns from the Shonaquip team about their assessment procedures

Over the course of a week in Cape Town, Colman and Eamon met with Shonaquip's design, clinical, management, and manufacturing teams, who generously shared their expertise and knowledge. They also attended a seating clinic with the team and helped Shonaquip's wheelchair technicians follow up with some of their clients.



Eamon and Colman with members of Shonaquip's clinical team

Wheelchair Accessible Van



Nelson tests the completed ramp with the help of a child from the center

This summer, we were contacted by the Neurosurgery, Education and Development Foundation (NED) to make our first-ever wheelchair-accessible van.

We collaborated with the House of Hope orphanage in Zanzibar to convert their standard van to be wheelchair accessible so that they could more easily transport some of their children between therapy sessions, school, and the centre.

Nelson, our chief technician, and Colman spent a week in Zanzibar designing, building, and installing the ramp.



Nelson straps the wheelchair securely in place



Nelson and Colman install the ramp

Partnership with Stanford University

Kyaro partnered with Stanford University's mechanical engineering capstone course this year by providing projects for four teams of students. As part of the culmination of their studies in mechanical engineering, each team took on a twenty-week design project for Kyaro. They have been in contact weekly with Kyaro design and manufacturing staff in Tanzania to develop new devices and refine current ones.

In December, we hosted eleven of these students in Arusha so that they could develop a first-hand understanding of the context of their projects. It was a fun and educational week for them and for our staff as groups attended deliveries, interviewed current users of our devices, met with physical therapists, and experimented with our shop staff!





Colman speaks on a panel at the Rehab Health Summit 2023

We were invited to participate in the first-ever Rehabilitation Summit held in Tanzania in early October. This inaugural 3-day event, dedicated to addressing gaps in rehabilitation services, marked a pivotal moment in care delivery for Tanzania.

The summit was a platform for dialogue, collaboration, and the exploration of innovative solutions to elevate the standard of rehabilitation care in Tanzania. It was attended by therapists, government officials, and various stakeholders in the rehabilitation and assistive technology sectors from across the country.

Our CEO, Colman, had the privilege of contributing as a panelist, shedding light on the role of technology in revolutionizing the way we approach service delivery in rehabilitation. This allowed Kyaro to sit alongside and connect with remarkable therapists and experts, who will be a great help as we work to not only provide devices, but improve health systems in Tanzania.

We were energized by the shared commitment of the community to drive positive change, reinforcing our dedication to advancing rehabilitation services and embracing innovation as we continue to forge meaningful partnerships for a brighter future.



Colman with Faustina Urasa, founder of Songambele and Kyaro board member



A user chooses her wheelchair color using Kyaro's Wheelchair Configuration Tool

People in Tanzania, and many other parts of the world, have been grappling with the challenge of public attitudes toward disability. In many parts of the country, disability is widely seen as the result of witchcraft or sin, and this misconception has direct negative effects on peoples' wellbeing. Many people avoid seeking out the tools they need to manage their disability because doing so admits that disability to their community and to themselves. This makes assistive devices a badge of shame to some people.

We want to change this narrative. When we deliver an assistive device, we want it to feel like an exciting time, analogous to getting a brand new bicycle. We want our devices to feel like tools that belong with a person and fit in their environment

This year we took an important step in this direction by introducing our Wheelchair Configuration Page. This tool lets people "design" their own wheelchair on the spot with our assessors. This means that people will be actively involved in selecting the features and specifications of their wheelchair. By including them in this process, we hope to foster a sense of ownership and pride in their assistive



Scan the QR code to
check it out!

Physical Therapy Equipment



Kyaro volunteer Evan O'Brien trains a parent to use new therapy equipment

A modern physical therapy clinic requires a great deal of equipment to support a wide range of medical needs. Many of these tools are difficult or impossible to find in Tanzania, but not particularly complex or expensive to produce.

We were contacted by Morovian Church Therapy Center in Mbeya, who hoped that we could use our combination of clinical and technical expertise to create a Tanzania-made version of the equipment they needed to set up their clinic.

Since then, we have found that the need for physical therapy equipment is a widespread problem in East Africa. We have now supplied devices for therapy centers in Mbeya and Zanzibar and are preparing to deliver to many more in 2024.



Kyaro team assembles a locally-manufactured trampoline



Scan the QR code to
watch the video!

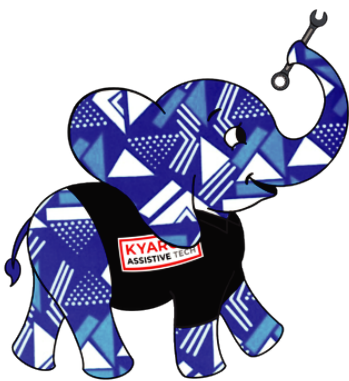
Christmas Fairs

In Tanzania, trade exhibitions, farmers' markets, and holiday fairs are important events for public awareness, community, and networking. They draw diverse crowds eager to learn about various initiatives. This year, we decided to leverage these spaces to raise awareness about the critical issues we address and raise money to support our fund-sponsoring devices for people in need.

To do this, we designed products that we could bring to these events: shirts and stuffed animals using the same Tanzanian fabrics as our wheelchair seats. We also gave personas to each animal that teach readers about the device provision process. These creations are a means of fundraising but also a way to introduce our work to new people.

At four events in Winter 2023, we had meaningful discussions with individuals from all over the world, shedding light on the importance of appropriate assistive technology and the steps that can be taken to make it available.

Meet our newest coworkers, who can be found in stuffed animal form around Arusha!



Kibo

Methodical
delivery elephant



Kasha

Skilled assessor and
clinician



Kubwa

Technician and all-around
cool lion



The Kyaro team at a Christmas Fair



Children play with the stuffed animals

Eurofins Grant



Colman carries out assessments using WHO guidelines

Late this year, we received a grant from the Eurofins Foundation, which we will use to build the capacity of our clinical team through training and mentorship, including courses on the provision of wheelchairs from the World Health Organization.

This will help move us toward our goal of becoming a leader in medical issues related to assistive technology for Tanzania.

Partnership with Sanaa



Sanaa craftspeople working on their designs

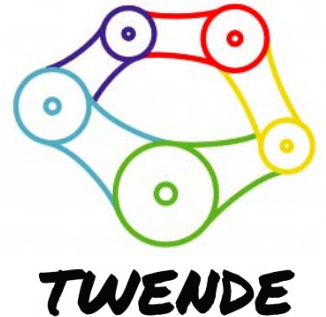
This year, we connected with an inspiring Tanzanian organization that shared our vision of creating an inclusive Tanzania. Sanaa, headquartered in Arusha, has established a workshop where individuals with disabilities are provided a platform to gain vocational skills and a stable job crafting handmade items from recycled glass, wood, and textiles.

Sanaa facilitated us in providing wheelchairs to two of their talented artists, enhancing their mobility within the workshop and simplifying their commute to and from work.

Artisans from Sanaa also created the stuffed animals that we sold at fairs this year, as well as our new staff shirts, pictured throughout this report. We were very pleased to be able to support members of our community with disabilities by bringing business to Sanaa.

PARTNERS

As Kyaro has grown over the last year, we have collaborated with a wide world of organizations committed to solving the same or related problems as us. We have learned a great deal from them and look forward to working with them more in 2024.



FUTURE PLANS

Moving forward, our operations will expand to cover new activities as defined by our new mission statement. While continuing to execute our original mission of providing affordable, appropriate, and appealing assistive devices in East Africa, we will place a stronger emphasis on ensuring these devices are widely accessible. Our goal is not only to supply appropriate devices but also to generate demand for them from wheelchair providers and individuals.



To ensure the long-term sustainability of our efforts, we are adopting a hybrid social enterprise model with for-profit and non-profit components. Under this structure, Kyaro LLC will focus on creating a locally owned, sustainable business around assistive technology. The NGO will concentrate on systems change and activities aimed at raising demand and awareness for assistive technology.

NGO

Increasing demand

- Building capacity and awareness
- Advertising
- Policy advocacy
- Building clinical capacity
- Community outreach

LLC

Increasing supply

- Increase manufacturing capacity
- Refine device designs
- Establish sustainable device production
- Improve product quality

Partnerships

Kyaro is far from the only organization dedicated to tackling the complex web of issues that lead to poor outcomes for people with disabilities in the developing world. Many people have been diligently and intelligently pursuing goals parallel to our own for years. As we broaden and adjust the scope of our activities going forward, we will use learning from and partnerships with these organizations as a foundation to our work.

More details about our hybrid model:

Incorporating a for-profit entity as part of Kyaro serves two purposes. First, it allows us to provide devices for a wider range of organizations, some of which have internal regulations requiring that they purchase from for-profits. Second, and more importantly, it is crucial to us that, in the long term, we build towards a sustainable model of assistive technology provision for people in East Africa that does not rely directly on charity and international funding, which are unpredictable. If our core activities are self-sustaining as a for-profit entity, we can ensure we are working towards this goal.

2024 PROGRAMS

Building toward our new mission will require many overlapping projects, including these three upcoming programs:

Building Capacity and Awareness

Stakeholder Workshop Series

In East Africa, many distributors of assistive devices lack awareness of the significance of appropriate devices. To address this gap, Kyaro will hold training sessions for stakeholders in various organizations, including schools, NGOs, therapy centers, and government programs. These sessions will educate stakeholders about appropriate assistive technology and empower them to use this knowledge in their work.



Improve Product Quality

2024 Volunteer Program

To maintain sustainable production of assistive devices in Tanzania, the designs and quality of the devices must meet the same standards as internationally available options. This summer, we will repeat our volunteer program with engineering students, focusing on refining the details and quality control of our current devices.



Building Clinical Capacity

Staff Trainings

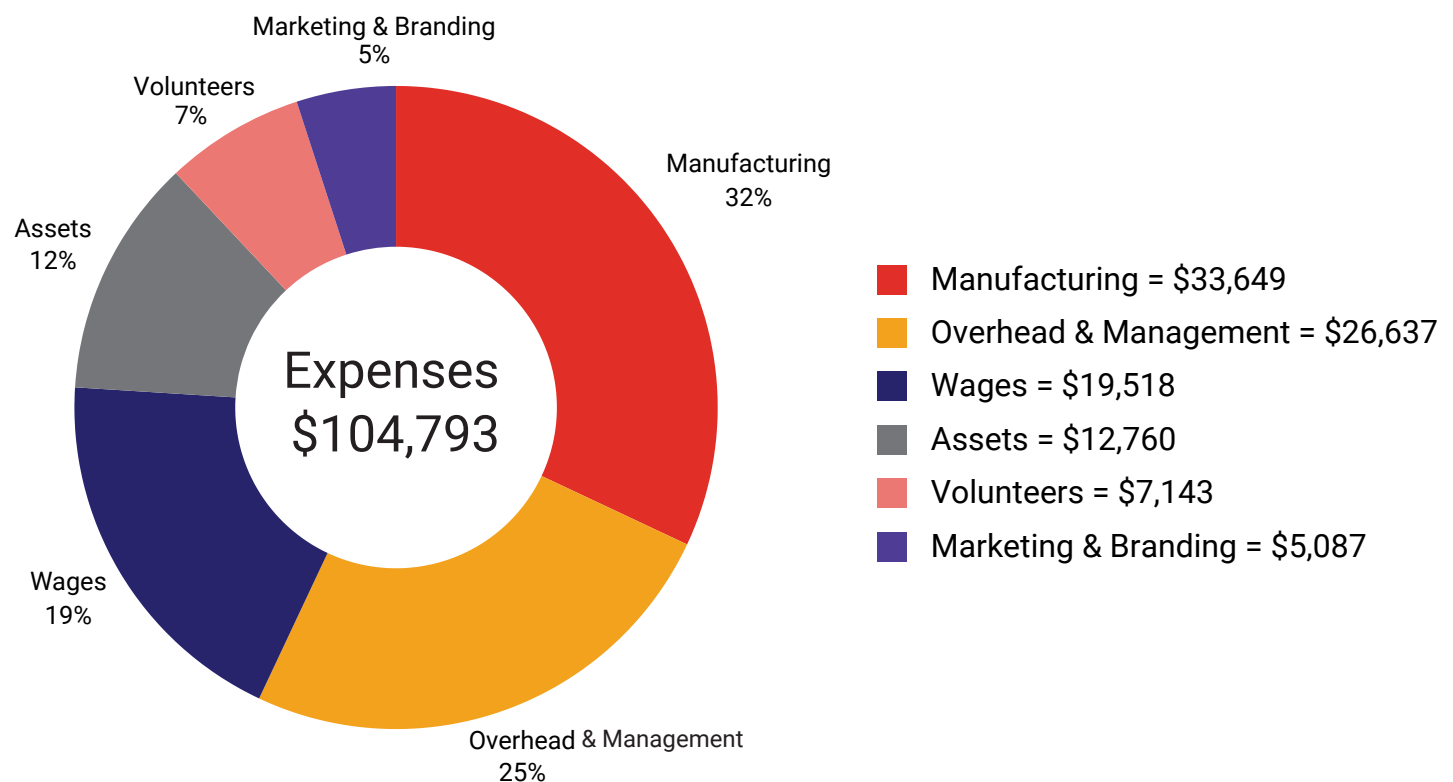
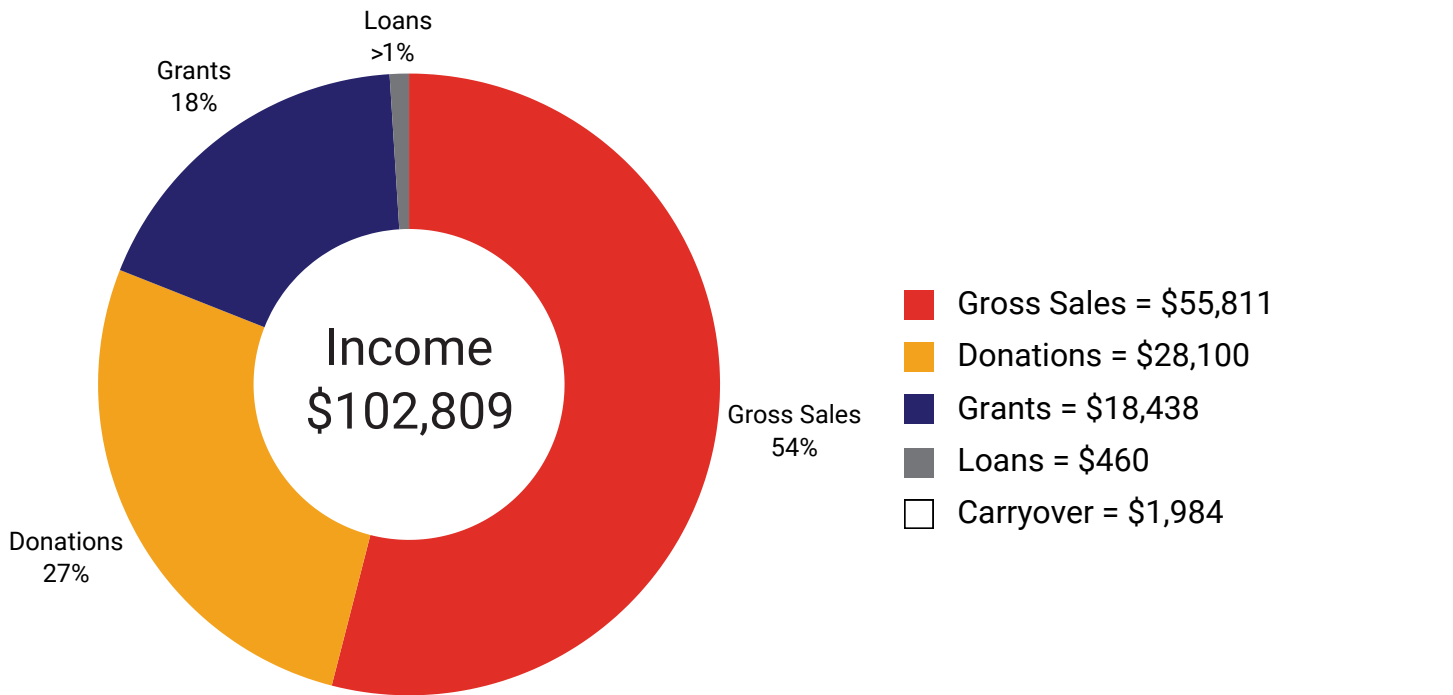
We want Kyaro to be a definitive source of information and expertise on assistive technology and accessibility for the East Africa region. To build our capability in this area, all our current staff will be receiving advanced World Health Organization training in seating, posture management, wheelchair assessment, and other topics over the course of 2024.



FINANCIALS

Because we secured several significant donations at the end of 2022, we began 2023 by using these funds to purchase important long-term assets, like our delivery vehicle, which helped immensely to increase our throughput and efficiency.

More than half of our income in 2023 came from the sale of devices to individuals and organizations, which was a very positive sign for the long-term sustainability of the organization. In 2024, our income and expenses will be split between the activities of the non-profit and for-profit components of the social enterprise, which will let us further understand what is needed to achieve sustainability for the provision of assistive tech in East Africa.



ACKNOWLEDGEMENTS

We extend our heartfelt gratitude to our many generous supporters. Without their time, resources, and knowledge we would not have been able to accomplish the many important milestones that we did in 2023

Our deep appreciation goes to our donors, whose generosity allowed us to expand our team, connect with new partners, develop new programs, and purchase crucial assets for future years. We are immensely grateful for the collaborative spirit of our partner organizations, who have shared their time and expertise with amazing generosity and allowed our knowledge and reach to leap ahead far faster than if we were going alone. We also thank the distribution organizations that chose to work with us to provide assistive devices for their programs, working with a new startup rather than an established provider in the name of ensuring their beneficiaries got the best care possible.

A special acknowledgement goes to the dedicated volunteers who generously dedicated months of their lives to Kyaro this summer. Their insights have been invaluable in ensuring that our products are functional and inspiring for the individuals we serve. They will be missed.

As we look ahead to 2024, we are excited about the prospect of expanding our network even further and making an even greater difference in the community through our ongoing efforts to enhance accessibility and inclusivity for those in need. Together, we can build a more inclusive and accessible future for all.

Volunteers

- Isha Goyal
- Tara Lee
- Olivia Chang
- Linda Hu
- Caroline Rausch
- Evan O'Brien
- Esteban Rincon
- Adam Benmira
- Catherine Xiang
- Dani Algazi
- Senkai Hsia
- Anna Vargas
- Carlos Diaz
- Sala Tamara Ba
- Cindy Chau
- Carlos Arias
- Mathilda Kitzmann
- Isa Pachecho
- Journey Washingtonhigh
- Lance Kennely
- Sebastian Chiu
- Sophie Taylor

Contributions above \$10,000

- Rick and Anne Waltonsmith
- Segal Family Foundation
- Charlie and Molly O'Brien

Contributions above \$1,000

- Cotswold Foundation
- Anne O'Brien
- The Oak Hill Fund
- Authentic Clay

Other donors

- Urban Lehner
- Sarah Bloomer
- Frank Bechter
- Claudia Alderman
- Dorothy Dow

Board Members


- Sudi Muli
- Colman Ndetembea
- Faustina Urasa
- John Nzira
- Eamon O'Brien
- Steve Sellers


Provision Partners


- Maternal Care Foundation
- Songambebe Initiative
- Sibusiso Foundation
- KCBRP
- Elijo General Supply
- Danish Refugee Council
- Tekla Tanzania
- Nomad Tanzania
- NED Foundation
- Moravian Church - Mbeya
- Moravian Church - Tukuyu
- The Changemaker Foundation
- Building Caring Communities
- Afri Med
- See Way Tanzania
- Sense International
- Chris Tandwa Company



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