Malawi - Jan 2023

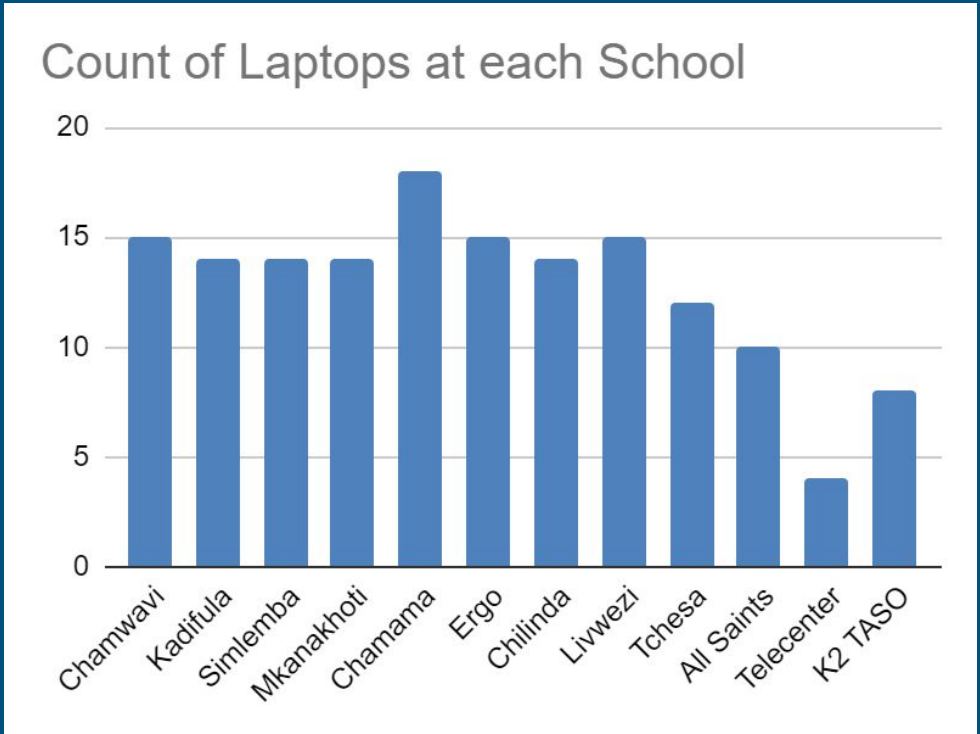
Trip Accomplishments

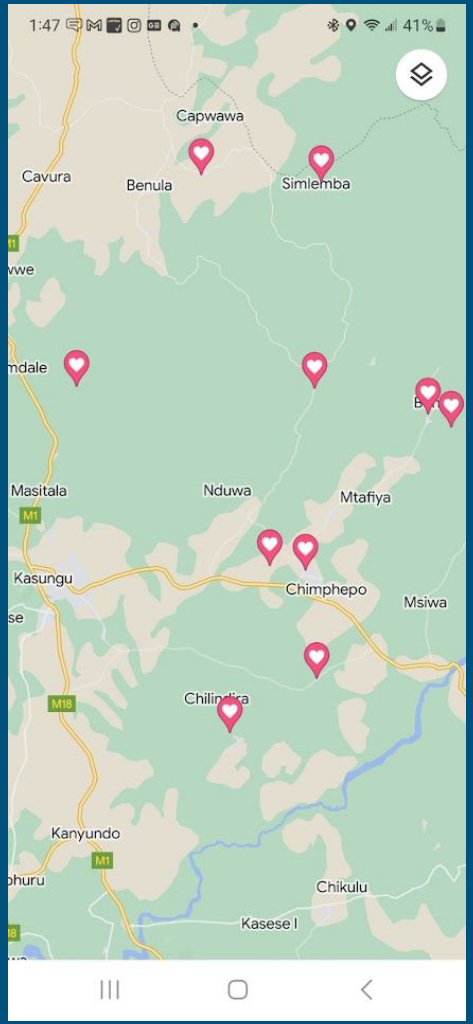
What we do

- Donate solar power systems, laptops and projectors to rural communities in the Kasungu District of Malawi, Africa through Bridges To Malawi (a 501.c.3)
- Support a local team of 4 technicians who
  - Visit schools monthly
  - Repair laptops and troubleshoot solar
  - Train teachers on use of technology for digital learning
- Visit 1-3 times per year to
  - Deliver additional laptops and technology
  - Provide professional development for ICT (Information/Computer Technology) teachers
  - Provide model lessons to students
  - Expand the program to additional schools
  - Train and support tech team
- Provide scholarships for university studies
- Support further education of the technicians

Where...

- 9 Community Day Secondary Schools
- 1 Primary School



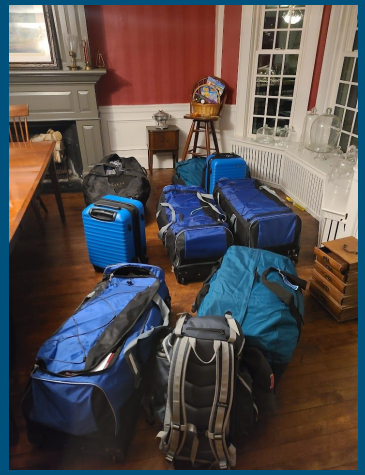


Our technicians

- Born, raised and educated in Malawi
- Graduated from All Saints CDSS in the village we work out of
    - Lobious Kamanga
    - Gideon Maseko
    - Sickiey Chiwengo
    - Robert Moto

Donations this trip:

- 45 Lenovo Thinkpads
- 5 HP Probooks
- 10 Projectors
- 3 24” Monitors
- 15 Router/File Servers
- 60 Computer Mice
- 25 Thumbdrives
- 11 Extension cords



Laptops generously donated by

Curriculum Associates

Additional items donated by

The Hardy Bunch Foundation

Charitable Organizations

- Bridges To Malawi
  - A 501(c)(3) funding medical, educational, agricultural and economic projects
  - Newsletter highlighting recent trip…
- The Hardy Bunch Foundation
  - A private grant making foundation described in Section 501(c)(3) and has filed for recognition with the IRS. It also encompasses direct charitable activities in Malawi by the trustees.

Trip Objectives

1. Communicate program objectives to beneficiary school leadership
2. Observe school's implementation of ICT studies
3. Evaluate solar power systems
4. Add projector and 5 additional laptops to each school
5. Offer professional development (PD) to beneficiary school teachers
6. Enhance female student ICT studies and access
7. Offer model lessons to beneficiary school students
8. Build collaborative relationships within Malawi
9. Build efficiencies within ICT technician team

1. Communicate program objectives

- Increasing number of laptops at each school to support:
  - Adding ICT to master timetable
  - Having Form 2 take ICT JCE exam and Form 4 MSE
- Enhance female student access to ICT studies

Every school visit began with school leadership and ICT teachers.

2. Observe school's implementation of ICT studies

- Because of
  - Small # of devices
  - High # of students
  - High Stakes National Exams

Most schools teach ICT as an after school club

Theory lesson at Livwezi CDSS

- Once a school puts ICT into the master timetable, 100% of Form 2 students must take ICT JCE national exam
- If students don’t pass enough JCE exams, they cannot proceed to Form 3
- HIGH STAKES!!

Theory lesson with 150 Form 1 (freshman) students at Chamama CDSS

Practical lesson with 8th graders at Tchesa Primary School

3. Evaluate solar power systems

- Utility power grid - 5 schools
  - 1 has been offline due to damaged transformer
- Solar power systems - 9 schools
  - Backup power for 2 schools
  - 7 schools 100% dependent on solar power
- Some schools can only charge a few laptops at a time
- Others can charge all at a time

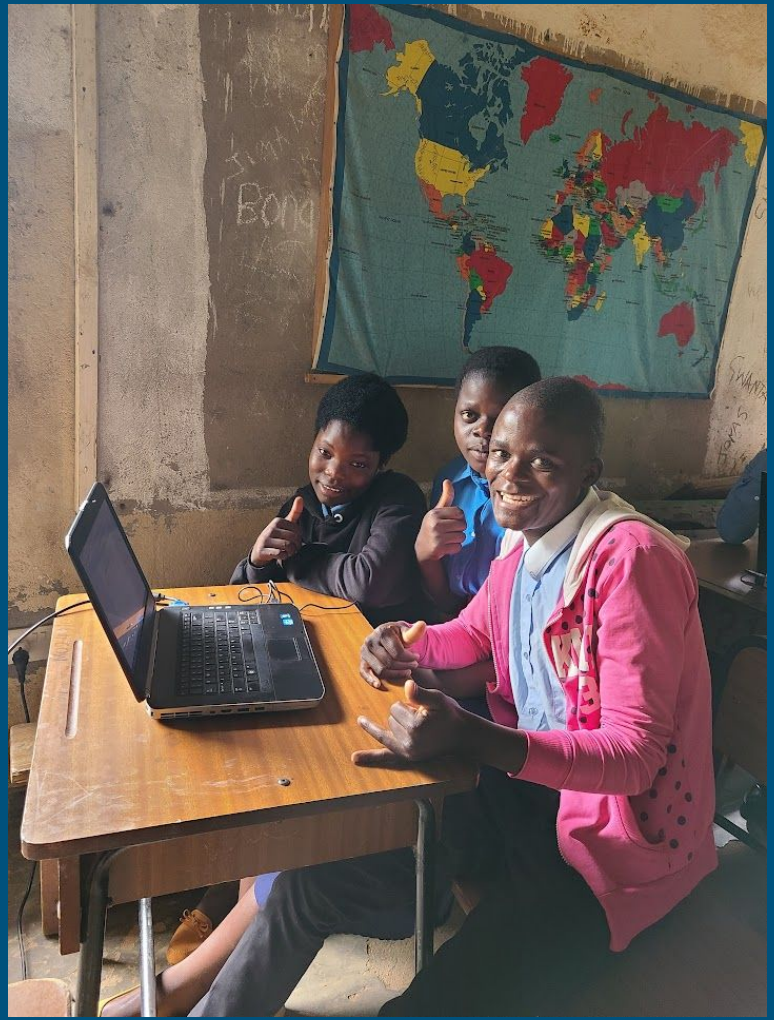
Solar power findings

- Solar technician evaluated every school
  - 5 schools need substantial upgrades
- Current goal
  - Upgrade 2 schools to a lithium solar system
    - Longer lasting
    - More powerful
    - Newer technology
  - Use parts from replaced systems to patch remaining schools
  - Moving Windmills is donating solar panels
  - Install solar systems in locked cages to prevent abuse

4. Add projector and 5 additional laptops to each school

- Identifying affordable, yet effective projectors is a challenge
  - We were measuring lumens
- Goal for future projectors
  - Reach out to colleges and universities to buy used projectors

Projector demo and donations



Kadifula CDSS and Chilinda CDSS

Chilinda and Simlemba CDSS

Tchesa Primary School

5. Professional development (PD) to beneficiary school teachers

Science teachers from All Saints CDSS attending PD on digital learning across content areas

Full day Kasungu District ICT PD event with 1 ICT teacher + 2 top female students from each school

6. Enhance female student ICT studies and access

- All day workshop offered to cohort of top 2 female students from each school

Top 2 female students from each school will compete for university scholarship

7. Offer model lessons to beneficiary school students

Computer Science lesson taught to all 10 beneficiary schools

8. Build collaborative relationships within Malawi

- Signed MOU w/ Ministry of Education
- ShiftIT - Rachel Server
- Moving Windmills
- Danforth Solar

From left to right:

Peter Minjale - K2 TASO Director, Jennifer Hardy - BTM ICT Donor, Billy Banda - Education Division Manager for the Central East Zone, Sickiey Chiwengo - K2 ICT Tech, Dow Hardy - BTM ICT Donor, Mervin Chilongo - Central East Zone ICT Desk Officer, Gideon Maseko - K2 ICT Tech, Lobious Kamanga - K2 ICT Tech

9. Build efficiencies within ICT technician team

Team Building

Agile Methodologies

Detailed inventory

Malawi Laptop Inventory .XLSX

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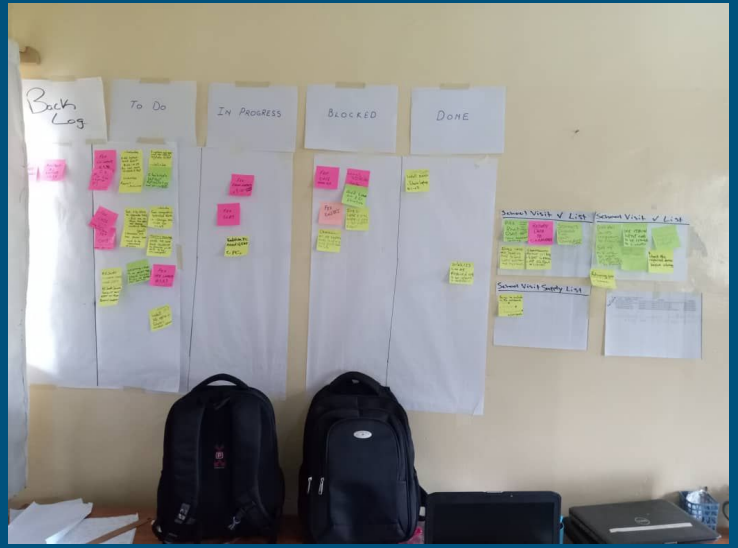
Share

Serial #	Donor	Make	Model	School	Current Location (if not at school)	Operating System	At K2 for Repair	Status	Notes	CPU	Memory	Hard Drive
23001	CA	Lenovo	T450	Chamwavi		K2Zorin v0.3+GSAPv3				i7	8GB	237GB
23002	CA	Lenovo	T460	Chamwavi		K2Zorin v0.5			Jen using for trip	i7	16GB	237GB
23003	CA	Lenovo	T460	Chamwavi		K2Zorin v0.3+GSAPv3				i7	8GB	237GB
23004	CA	Lenovo	T460	Chamwavi		K2Zorin v0.5				i7	16GB	237GB
23005	CA	Lenovo	T460	Kadifula		K2Zorin v0.5			Used for Cloning	i7	16GB	237GB
23006	CA	Lenovo	T460	Kadifula		K2Zorin v0.3+GSAPv3				i7	16GB	237GB
23007	CA	Lenovo	T460	Kadifula		K2Zorin v0.3+GSAPv3				i7	16GB	237GB
23008	CA	Lenovo	T460	Kadifula		K2Zorin v0.3+GSAPv3				i7	16GB	237GB
23009	CA	Lenovo	T470	Simlemba		K2Zorin v0.5				i7	16GB	237GB
23010	CA	Lenovo	T470	Simlemba		K2Zorin v0.5				i7	16GB	237GB
23011	CA	Lenovo	T470	Simlemba		K2Zorin v0.5				i7	16GB	237GB
23012	CA	Lenovo	T470	Simlemba		K2Zorin v0.5				i7	16GB	237GB
23013	CA	Lenovo	T470	Mkanakhoti	Telecenter	K2Zorin v0.4			Used for Cloning	i7	16GB	237GB
23014	CA	Lenovo	T470	Mkanakhoti	Telecenter	K2Zorin v0.3		track pad stiff but working		i7	16GB	237GB
23015	CA	Lenovo	T470	Mkanakhoti	Telecenter	K2Zorin v0.4				i7	16GB	237GB
23016	CA	Lenovo	T470	Chamama		K2Zorin v0.5				i7	16GB	237GB
23017	CA	Lenovo	T470	Chamama		K2Zorin v0.3+GSAPv3				i7	16GB	237GB
23018	CA	Lenovo	T470	Chamama		K2Zorin v0.5				i7	16GB	237GB
23019	CA	Lenovo	T470	Chamama		K2Zorin v0.3+GSAPv3				i7	16GB	237GB
23020	CA	Lenovo	X260	Ergo		K2Zorin v0.5				i7	16GB	237GB

Laptops | Chart1 | Dashboard | K2 Repair Shop | Other Equipment | Thumbdrives | Built Zorin Image | Laptop Replacement Parts | Replacement Guide

- Kanban Board
- Monday SCRUMs



And the work continues.....

- Improve power reliability to support larger computer lab needs
- Increase:
  - # of laptops at each school to support National Exam requirements
  - # of schools with computer labs
  - Support of female student access to opportunities in technology
  - Digital learning access beyond computer studies, i.e. science, math,etc.
- Continue professional growth of teachers and tech team
- Enhance partnerships with Ministry of Education and other organizations (Moving Windmills, ShiftIT, etc.)

THANK YOU!