



BRINGING ISRAELI INNOVATION TO AFRICAN VILLAGES.

Sustainable Rural Off-Grid Electrification

Addis Ababa, December 4th 2013

Dr. Samson Wamani, Health Development Officer

innovation: africa



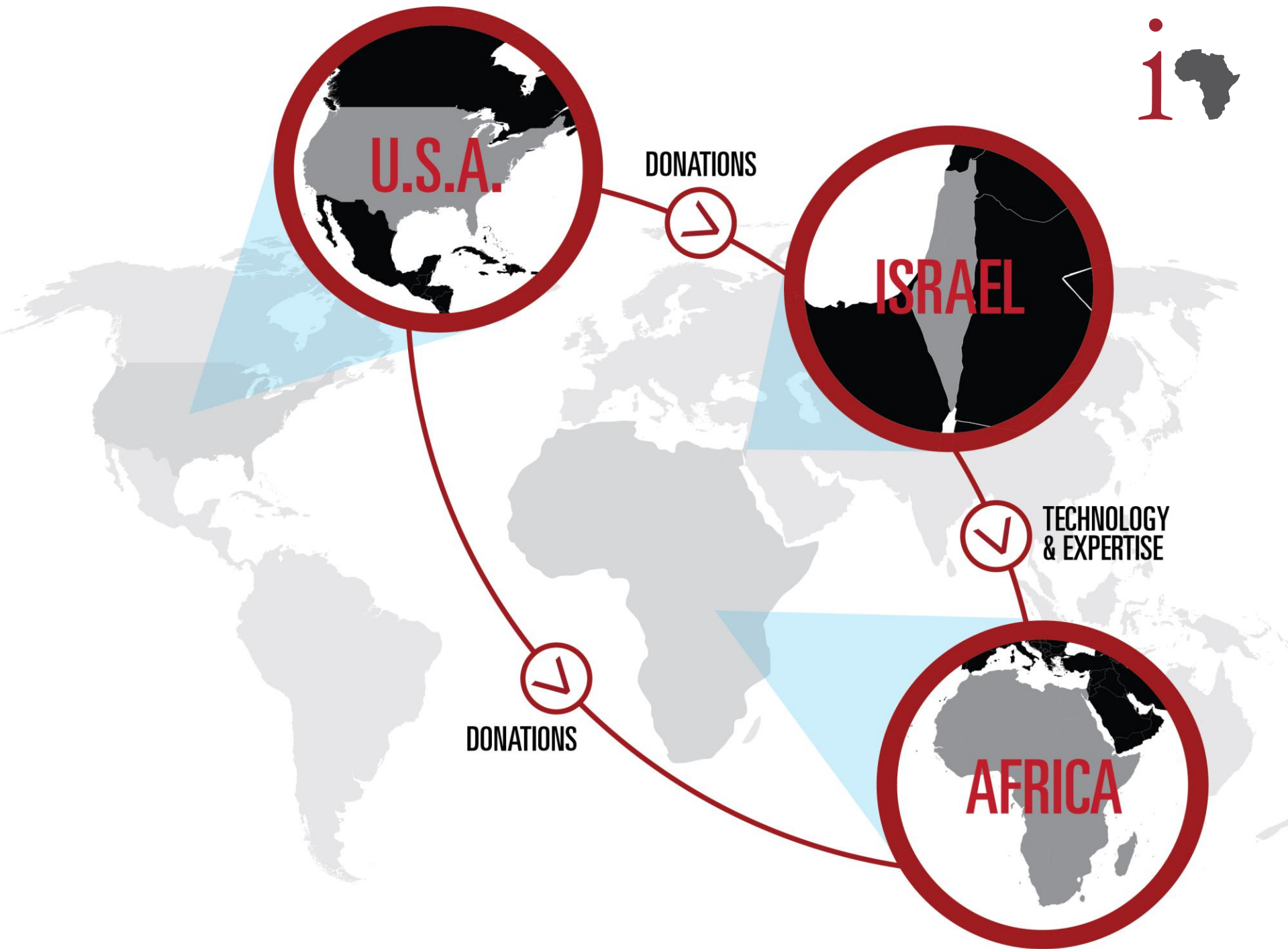
Innovation: Africa's Mission:

Our mission is to leverage Israeli innovation to promote sustainable development in Africa. In doing so, we are improving the image of Israel at the UN and around the world.

INNOVATION: AFRICA WAS GRANTED SPECIAL CONSULTATIVE STATUS TO THE UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL IN JUNE 2012.

Innovation: Africa is a 501(c)(3) non-profit organization based in NYC.

innovation: africa



WHERE WE WORK:



We are BASED in NYC and in ISRAEL and operate in the countries below, where we have offices and local managers on the ground:



Ethiopia



Uganda
Office



Tanzania
Office



Malawi
Office



WHAT WE'VE DONE



68

PROJECTS
COMPLETED

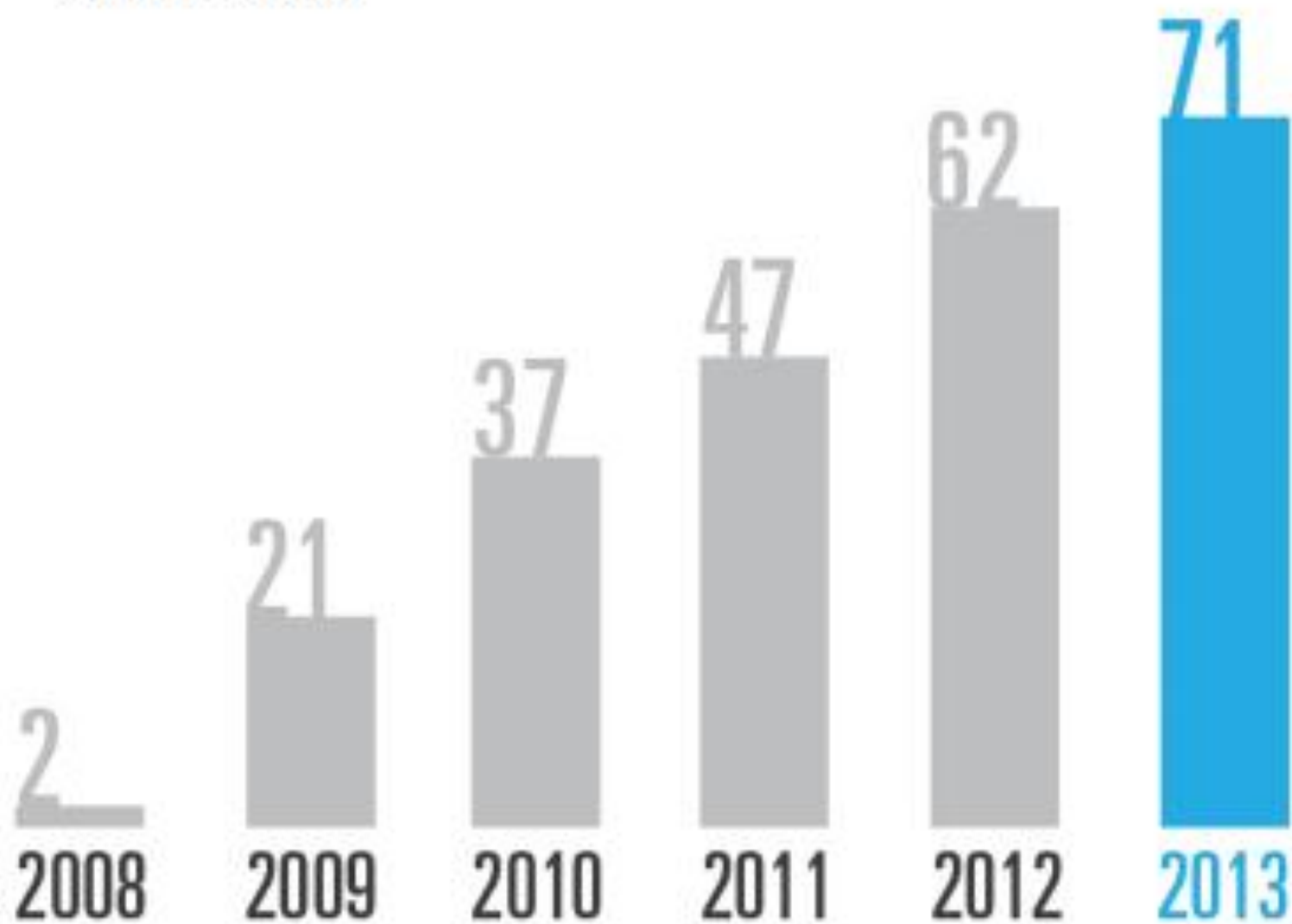
4

COUNTRIES





PROJECTS COMPLETED
SINCE 2008

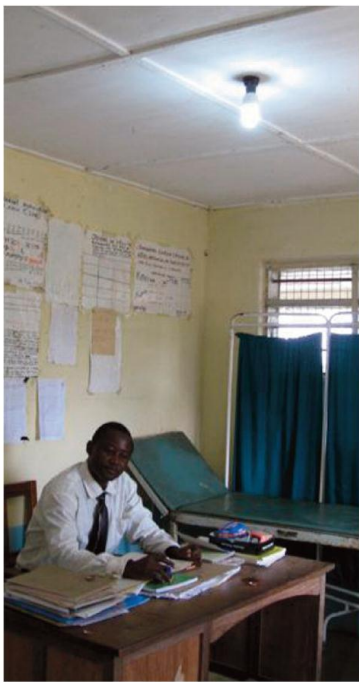




UGANDA 39 PROJECTS

Budwale Health Center
Budwale Primary School
Bumadanda Health Center
Bumadanda Primary School
Buvundya Orphanage I
Buvundya Orphanage II
Kaliro Community HIV/AIDS
Organization (KACHO)
Kaliro Orphanage
Katira Primary School
Katira Health Center
Kolonyi Water Project
Lubuulo Primary School





UGANDA CONTINUED

Lwaso Primary School
 Nabigwaali Health Clinic
 Nabikooli Health Center
 Namutumba Synagogue
 Nanzala Primary School
 Nawampiti Medical Clinic
 Nawansekesse Primary School
 Poultry Farm and Community Center
 Putti Farm
 Putti Library & Synagogue
 Putti Primary School
 Putti Water Pumping System
 Sapiri Health Centre
 Sapiri Primary School
 Solar Kiosk
 Ten Individual Homes
 Thornbury Bufumbo Health Center
 Mugiti Primary School





TANZANIA

10 PROJECTS

Bagamoyo Women's Farming Collective
Kidigozero Medical Clinic
Kidigozero Primary School
Kitonga Primary School
Makurunge Clinic
Makurunge Primary School
Mataya Dispensary
Milo Clinic
Mkange Clinic
Visezi Medical Clinic
Visezi Primary School



ETHIOPIA

1 PROJECT

Gudo Clinic



MALAWI 15 PROJECTS

Bright Vision CBO
Chadza Helath Clinic
Kapanga Health Clinic
Chikowa Health Center
Chimwa Secondary School
Kafinya Primary School
Kapudzama CBO
Mingongo Health Center
Mngwangwa Primary School
Ndaula HC Water Pumping System
Ndaula Health Center
Ndaula Primary School
Ndaula Secondary School
Nthondo Health Clinic
Ukwe Health Center





PEOPLE IMPACTED SINCE 2008

2013 540,424

2012 454,420

2011 233,036

2010 156,558

2009 37,360

2008 7,144





540,424 PEOPLE

HAVE ACCESS TO ISRAELI INNOVATION

284,023

MALAWI



152,957

UGANDA



23,522

ETHIOPIA



79,776

TANZANIA





OUR WORK IN AFRICA

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WHY WE DO IT:



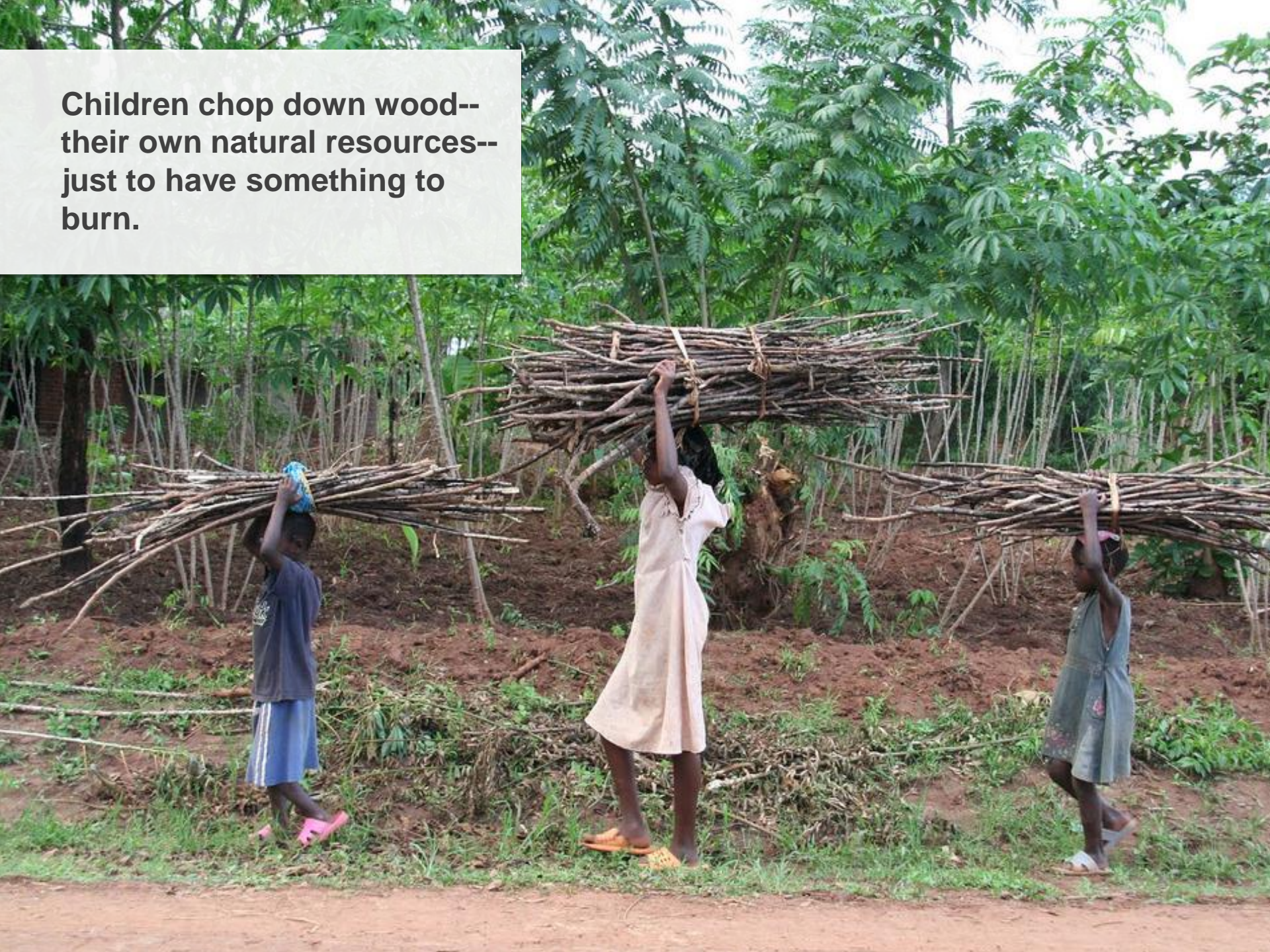
challenges and solutions

**64% of sub-Saharan Africans
live in villages like this one**

(World Bank Report on Agriculture
and Development)



**Children chop down wood--
their own natural resources--
just to have something to
burn.**





Women and children spend hours each day fetching water, preventing them from going to school and earning a living.







“More people die from unsafe water than from all forms of violence, including war.”
UN Secretary General Ban Ki Moon



30% of the average household income is spent on kerosene and candles



AFRICA AT NIGHT

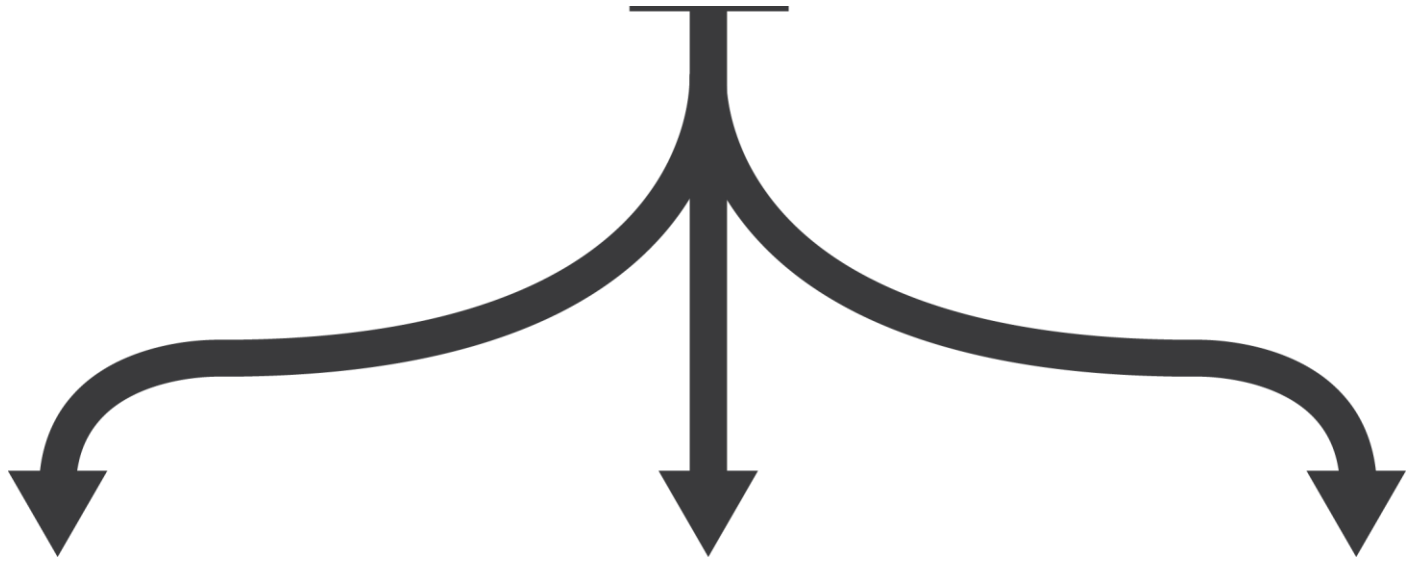
FAC

585 Million Africans live
without electricity

(From a statement in
November 2011 Ban Ki Moon)



at **i** we understand that without energy there is:



CHANCE FOR
A BETTER EDUCATION



WAY TO PUMP CLEAN WATER
FROM DEEP BELOW GROUND



OPPORTUNITY FOR
PROPER MEDICAL CARE



SOLAR POWERED MEDICAL CLINICS

**THORNBURY-BUFUMBO
MISSION HEALTH C'TRE**
P. O. Box 240 M'BALE
EDWALIRO

SERVICES:-



Medical Care · Consultation
Family Planning
Health Education
Immunization

Working Hrs.
From To



Bufumbo Village, Uganda

Population: 29,158 people



Nurse Hajala Zandia and
Innovation: Africa's Founder &
President Sivan Ya'ari





INSTALLED:
240 WATTS
OF SOLAR PANELS
FOR 12 LIGHT BULBS










On Average, the number of women seeking maternal healthcare at our medical clinics increases by 400% after solar installation



**MORE THAN
300,000
CHILDREN**

**HAVE RECEIVED
VACCINES STORED
IN OUR SOLAR
REFRIGERATORS.**



A low-angle shot of a Black man in a white button-down shirt, smiling broadly and looking upwards. His right arm is raised, touching a dark metal beam. The background is a bright, slightly out-of-focus interior space with a ceiling light fixture.

We power the homes of their staff, making it easier for the clinic to recruit and retain employees.



SOLAR POWERED WATER PUMPS

WATER PUMPING SYSTEMS



UGANDA, PUTTI VILLAGE.





WE HAVE INSTALLED **720 WATTS** OF SOLAR PANELS.

Solar panels are reliable, require no operating costs and need very little maintenance.







WE INSTALL **SOLAR PUMPS**

Our pumps can reach up to 600 feet below ground.



WE INSTALL **WATER TANKS**

Each reservoir can hold up to 10,000 liters.



WE INSTALL WATER STATIONS

throughout the village to supply water for irrigation, drinking, washing, cooking and for livestock needs.



SOLAR WATER PUMP





WE ARE PUMPING OVER 20,000 LITERS OF WATER A DAY PER VILLAGE

More water also means more crops, which leads to better nutrition and a source of income.





ECONOMIC DEVELOPMENT: CREATING BUSINESS & GENERATING INCOME





THE COST TO
BRING CLEAN
WATER TO A
MINIMUM OF
1,000 PEOPLE
IS LESS THAN
\$30,000



SOLAR POWERED SCHOOLS & ORPHANAGES

Chimwa Secondary School, Malawi

Population: 400 students





Every night, students
used to come to school to
study by candlelight.



We installed 120 watts of solar energy...



...and light bulbs in each classroom.



Now Chimwa
Secondary School
looks like this...



...with students and
teachers crowding into
the classrooms each
night for evening study
and homework help.



GIVEN A SCENARIO



END TERM 3 TEST 2012

ENGLISH PAPER 3

Instructions: answer all questions

Questions 1-10

In each of the following questions choose the correct answer (A, B, C or D) that best completes each of the sentences.

The young man did not approve

old people who misbehave.

A. at B. for C. on D. with

Karim had learnt seven languages

the time he was twelve years old.

A. at B. until C. before D. by

His workshop is equipped with all

the latest machinery.

5. The fire was not _____ enough to

could cause much damage.

A. down B. off C. on D. under

6. His friends persuaded him

leaving the job.

A. about B. from C. to D. of

7. He was _____ the examination hall

as he forgot his book.

A. passed B. passed C. passed D. passed

8. The flower in the _____ was

A. long B. short C. long D. short

9. The man who lived in the village

gave a good sermon.

A. at B. in C. on D. of

10. The lady asked the man to

give her _____

A. a B. an C. the D. some

11. The man who lived in the village

gave a good sermon.

A. at B. in C. on D. of

12. The man who lived in the village

gave a good sermon.

A. at B. in C. on D. of

13. The man who lived in the village

gave a good sermon.

A. at B. in C. on D. of

14. The man who lived in the village

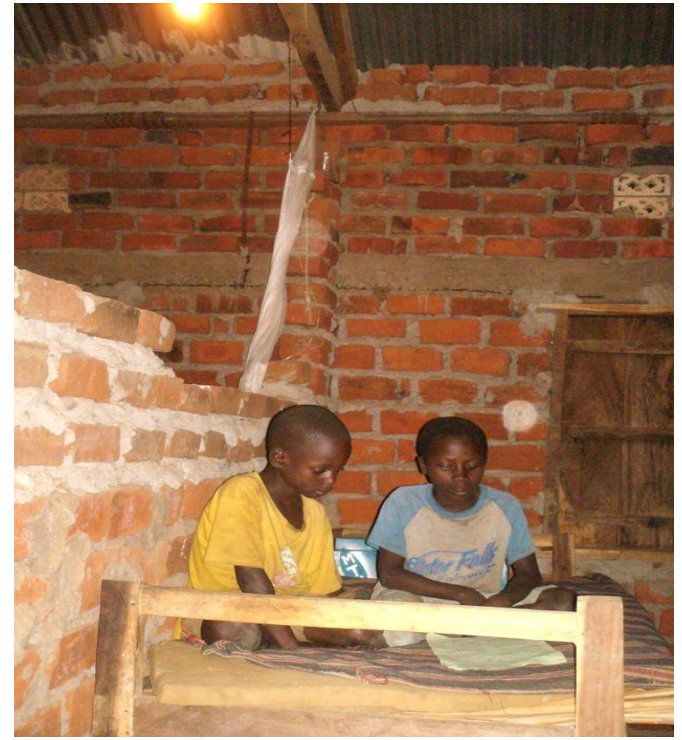
gave a good sermon.



Graduation rates have as much as tripled in our primary and secondary schools after solar installation.

Kaliro Orphanage,
Uganda
Population: 300











**THE COST
TO POWER
A SCHOOL,
AN ORPHANAGE,
OR A MEDICAL
CLINIC IS
\$10,000.**



SUSTAINABILITY | BUSINESS



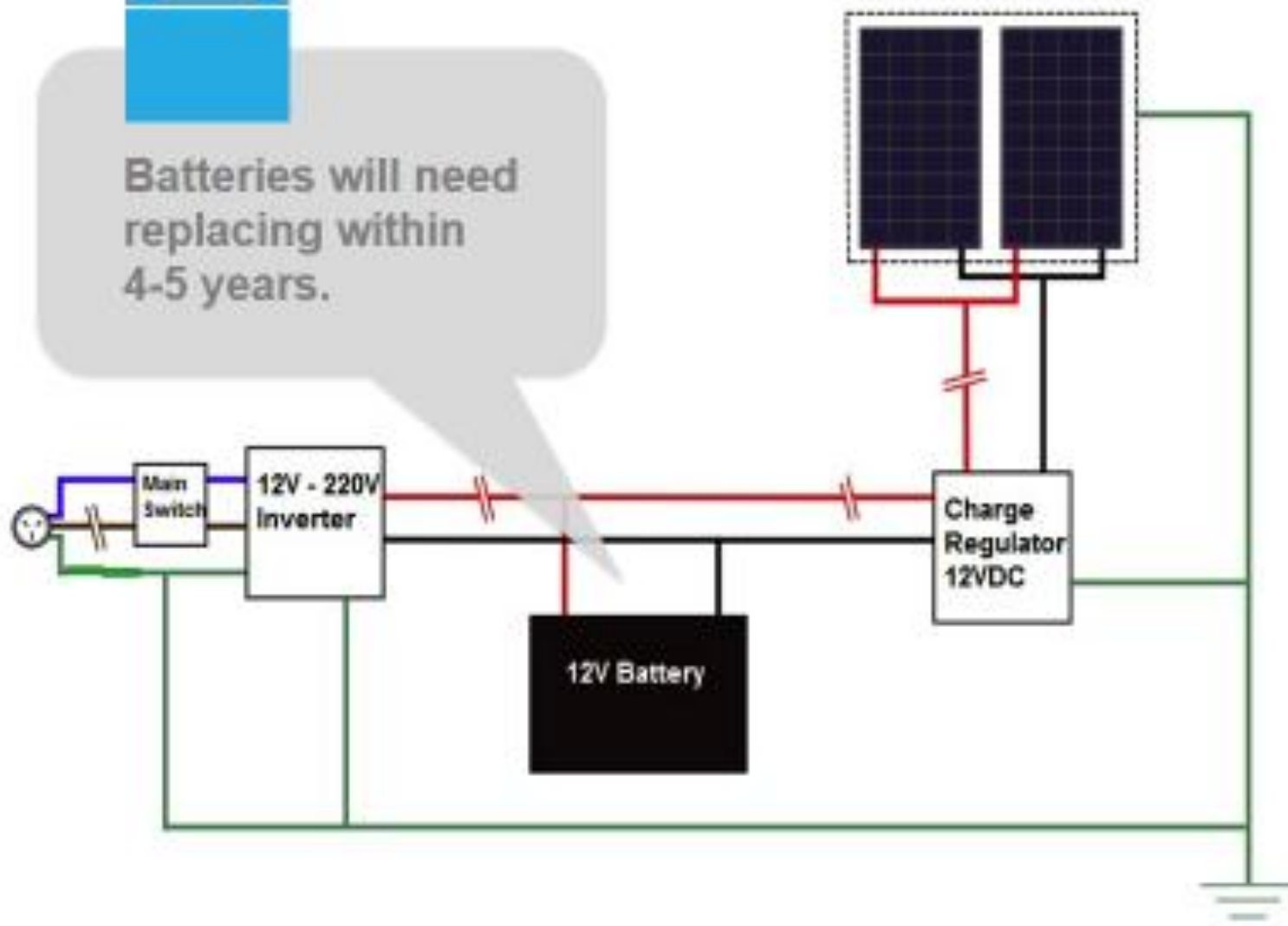
SOLAR COMMITTEES

We build solar committees at every project, consisting of key stakeholders: facility staff, local government, tribal leaders, heads of local women's groups and more. We provide them with the training to run their solar system and the business necessary to maintain it.

SOLAR SYSTEM EQUIPMENT INSTALLED:



Batteries will need
replacing within
4-5 years.





Mobile penetration is outgrowing Africa's energy grid, and this growing gap has driven demand for off-grid charging solutions.



68 BUSINESSES IN OUR 68 PROJECTS

WE INSTALL solar cell phone charging stations at each of our projects.

The business is run by a staff member.

Customers from the village pay approximately \$0.15 to charge their phones.



RECORD TRANSACTION:

Each transaction is recorded in the facility's record book.



DEPOSIT IN BANK ACCOUNT:

Income from the charging station is deposited into the bank account. All receipts are checked monthly.

These funds are used by our facilities to replace light bulbs and batteries, making every project 100% self sustaining.

REPLACE LIGHT BULBS



REPLACE BATTERIES







ISRAELI MONITORING: TRACKING OUR SYSTEMS FROM ACROSS THE WORLD

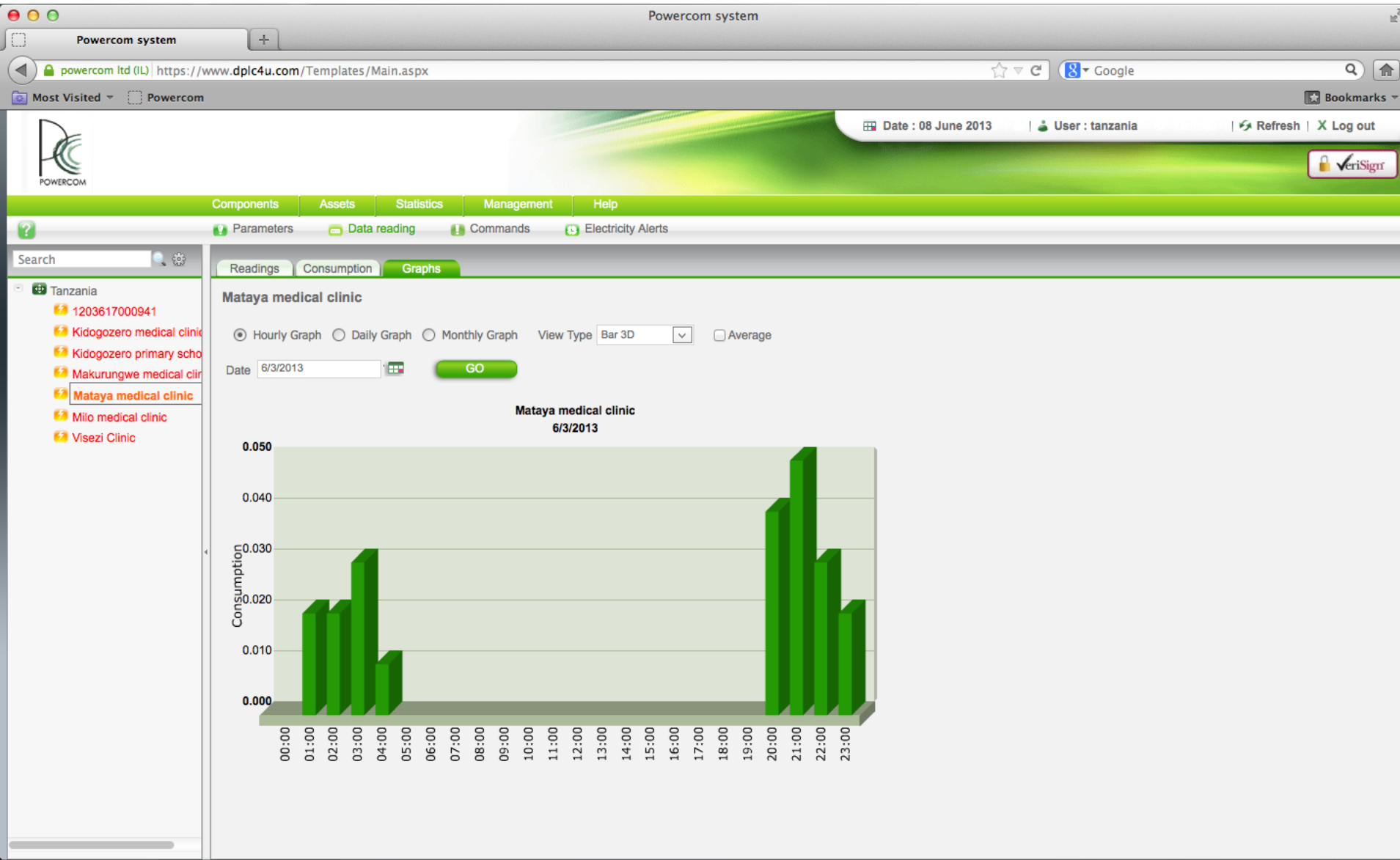
There's one thing everyone wants to know about our projects: how do we know that they're working? Powercom--a company based out of Kibbutz Ramat Hakovesh--produces a remote monitoring system that collects data from our solar systems and sends that information to an online server that we can access from any computer, anywhere in the world. We know how much energy our projects are producing and consuming, we can predict problems before they start and we can protect the investments of our donors, keeping our systems strong and ensuring that they provide our communities with the energy they need and deserve.



REMOTE MONITORING TECHNOLOGY PARTNERS



SAMPLE REMOTE MONITORING REPORT





ISRAELI COMPUTERS: TEACHING TECHNOLOGY IN THE VILLAGE

We just installed our first Israeli manufactured computer at Mngwangwa Primary School in Malawi. This ultra durable, compact, low-cost and energy efficient computer by Compulab is already offering students the opportunity to learn IT skills in their village, all powered by solar energy. With the success of this pilot, we'll begin providing Compulab computers to all of our solar powered schools next year.





ISRAELI LOCKS: PREVENTING THEFT AT MINIMAL COST

Karnaf patented what might just be the simplest and most cost effective tool for theft prevention on the market. It's a small metal device that locks the panels to one another and the roof, making them nearly impossible to steal without heavy machinery unlikely to be found in our rural communities. We haven't had a single instance of theft since installing these locks. And the best part: each one is less than \$20.



ISRAELI IRRIGATION: FIGHTING HUNGER AND PROMOTING ECONOMIC GROWTH

Almost 50 years after the success of their first drip irrigation system, Netafim is still a world leader in growing more crops with less water. We bring their irrigation systems to rural communities, where people are dependent on agriculture for both food and income. Even in times of drought, Netafim technology helps farmers grow the crops they need to feed their families and to sell in local markets.





Drip irrigation allows rural farmers to grow more crops with less water, even in times of drought.

i  STAFF



Sivan Ya'ari
Founder & President



Rachel Ishofsky
Managing Director





Bar Riese
Program Manager



Emma Goldman
Outreach Coordinator



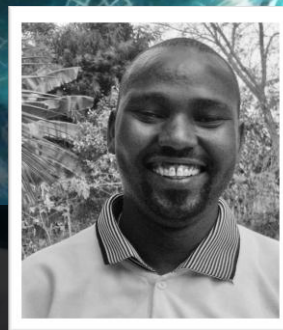


innovation: africa



Perri Katz
Office Manager





Mutisya John
Project Manager, Tanzania



DISTRICT DIRECTOR OF HEALTH SERVICES

PLEASE, KINDLY GET CLEARANCE FROM THE
SECRETARY BEFORE ENTRY.

Hands
to be proud of
Hands washed with soap and water are
HANDS TO BE PROUD OF



Dr. Samson Wamani
Health Development Officer,
Uganda



SECOND

MEMBERS



DELIVERY OF SERVICES

received by

ISSUING LOCAL P...

done by



Robert Khakhosi
Project Manager, Uganda



Alex Kaomba
Project Manager, Malawi



Elias Lazaro
Solar & Water Contractor, Malawi



Robert Bakalumpagi
Solar Contractor, Uganda

OUR GOAL



**To share Israeli innovation
and expertise with millions of
sub-Saharan Africans whose
lives will be better and futures
brighter for it.**







THANK YOU.

Dr. Samson Wamani, Health Development Officer

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