

Kenya Country Report 2014

SolarAid report of SunnyMoney activity in Kenya



A welcome from Linda

Welcome to the 2013 Country Report for SunnyMoney Kenya. As Operations Director for the Kenyan team I am delighted to introduce you to our pioneering social enterprise.

In Africa the sun is out every morning, it's abundant, yet people don't necessarily know how to harness that power. But that's changing and in Kenya people are becoming more and more aware of how solar lights can be better for their health, wealth and the environment. It's incredibly rewarding to be part of initiating that change for my fellow Kenyans.



Since I joined SunnyMoney in 2011 we have gone from selling an average of 500 solar lights a month to over 13,000 a month in 2013. Hitting sales and business targets is motivating for my team, but as a social enterprise we also get to celebrate the social impact of our work. Watching families switch from kerosene to clean, safe solar lighting is without a doubt the best job satisfaction.

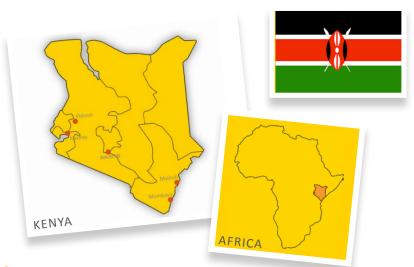
Solar lights are the future for Kenya. We need to start using more renewable energy to save the planet and better lives. And we will. Thank you for your interest in SolarAid and SunnyMoney, and how we are contributing to that goal through our work building a sustainable market for solar lights across the country.

LINDA WAMUNE
OPERATIONS DIRECTOR

SunnyMoney is a social enterprise wholly owned by international development charity SolarAid. It forms part of an innovative charitable model that takes a business-based approach to tackling poverty and climate change. Any surplus revenue generated by SunnyMoney is reinvested back into the charity to support our goal: the eradication of the kerosene lamp from Africa by 2020. Kenya is one of the five countries that we were working in during 2013. Read more about the model on page 4.



Kenya: at a glance



CAPITAL CITY:

CURRENCY:

LANGUAGE:

POPULATION:

GDP:

MAIN EXPORTS

PEOPLE LIVING IN POVERTY:

Nairobi

Kenyan shilling

Swahili; English; 67 others

43.18 million

\$40.70 billion

Tea, coffee, flowers

45.9% of the population





The energy problem

Only 19% of the population have access to electricity which means 34 million people are living without power. 92% of rural households rely on kerosene for lighting but it is expensive and takes up a huge proportion of family budgets.

Without light, opportunities for earning, learning and socialising are severely limited. The productive day is cut short so that children cannot study, parents cannot work and families have little time together after the sun sets. When darkness falls millions depend on costly, polluting light sources to light their homes, schools and businesses. This dependency locks people into a cycle of poverty; draining their income, damaging their health and causing fatal burns and fires. Burning fuels like kerosene also releases carbon dioxide and black carbon into the atmosphere, which is bad for the environment.

46% of the population lives below the poverty line and the majority of these people live in rural areas – those least likely to benefit from grid electrification.

"Energy is the thread that connects economic growth, increased social equity and sustainability. But, widespread energy poverty still condemns billions to darkness, ill health and missed opportunities for education and prosperity."

- UN SECRETARY GENERAL BAN KI-MOON

81% OF HOUSEHOLDS DON'T HAVE ACCESS TO ELECTRICITY.

RURAL KENYAN HOUSEHOLDS SPEND AROUND 26% OF THEIR INCOME ON LIGHTING.

92% OF HOUSEHOLDS
RELY ON KEROSENE
THAT IS EXPENSIVE AND
DANGEROUS.

What SunnyMoney does

SunnyMoney is building a sustainable market in Kenya through the sale and distribution of pico-solar lights.



A STUDENT WITH THEIR NEW SOLAR LIGHT

In 2013, SunnyMoney in Kenya continued to provide access to clean, safe, bright solar lights across the Rift Valley: Uasin Gishu, Elgeyo Marakwet, Nandi, Trans Nzoia and Kericho Counties. With support from the Ministry of Education, SunnyMoney work closely with District Education Boards to arrange Head Teacher Meetings, bringing groups together to learn about solar so they can offer their students and community the chance to purchase a solar light.

Through SunnyMoney Kenya's Agent Networks, the teams sell lights through cooperatives as well as local shops and agents. This is an area of work that SunnyMoney is seeking to further develop and expand over the coming year to provide better access and availability to these solar lights across the country.





The SunnyMoney model

"SunnyMoney has cracked the code on the distribution side of solar lanterns in East Africa"

- DR. WIEBER BOER, CEO OF TONY ELUMELU FOUNDATION

SunnyMoney is part of an innovative charitable model based on trade not aid; a social enterprise founded by international development charity SolarAid in 2008.



SOLAR LIGHTS BEING DISTRIBUTED TO STUDENTS

SolarAid and SunnyMoney believe that sustainable development is vital to achieving our shared goal of eradicating the kerosene lamp from Africa by 2020. Rather than give solar lights away, SunnyMoney was established to sell them at a full but fair retail price in rural African communities. This creates markets for pico-solar lights in remote areas where low volumes mean that their sale is currently challenging. Charitable funding from SolarAid enables SunnyMoney to undertake the expensive and difficult task of building trust in, and access to, solar lights in areas with little infrastructure and poor retail networks. We know that when a thriving market takes shape, other players will enter the market, ensuring better supply, reduced prices and more availability to all.

This business-based approach not only gets solar lights to people quickly but provides jobs and business opportunities. We know that for some it is a struggle to find money to invest in a light so SunnyMoney is also working on financing

initiatives, such as pay-as-you go technologies, to make the products more accessible.

SunnyMoney's field teams visit an area and raise awareness of solar lights by working with schools. Teams are able to deliver lights efficiently through this trusted network and support local agents to stock solar products as local demand grows. This community-based model means that SunnyMoney supports the growth of a sustainable solar market. As a social enterprise wholly owned by SolarAid, all of SunnyMoney's income is reinvested back into the charity's work. Donations are therefore recycled time and time again, giving more people access to clean, safe solar technology.



A SUNNYMONEY AGENT WITH SOLAR LIGHTS IN HER SHOP

"Charity money has only one life but if you transform it into social business money, then it becomes a life of eternity."

> - MUHAMMED YUNUS, 2006 NOBEL PEACE PRIZE WINNER

"I saved the cash and now I bought a container and opened a small business."

Mathias Saiyialel, father of four, Narok

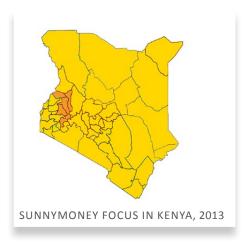


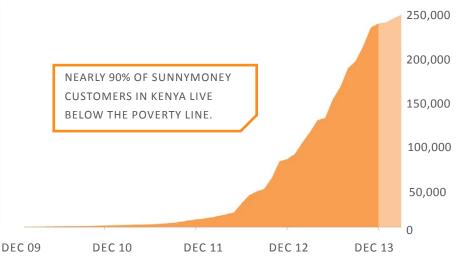


SunnyMoney sales

Kenya sales figures have been growing exponentially since 2011.

At the end of 2011, 9,000 lights had been sold; by the end of 2013 this had increased over 2500% to 234,600. The team have been working in five counties in Western Kenya this year. In 2014 we shall continue to expand into new counties whilst continuing to build our agent networks across the country.





CUMULATIVE SOLAR LIGHT SALES (CURRENT AND FUTURE)

The solar lights

SunnyMoney are a product-neutral distributor of solar lights.

SunnyMoney sell more than 10 different types of lights, all rigorously tested and World Bank quality assured. They are durable, reliable, last up to five years and all come with a warranty. The teams work with our customers to ensure they are getting what they want from the lights, feeding this back to manufacturers to drive improved standards and new designs. Below are our customers' current favourites:

The *d.light S2* is our biggest seller and most popular light. A study lamp giving out four hours of bright light, it provides a focused beam making it ideal for studying or working.



The SunKing Pro from Greenlight Planet has three brightness settings and lasts up to 30 hours. With a display screen showing the hours of light available, and phone charging capacity, it is especially popular with teachers and business owners.

The *d.light S20* has two brightness settings: eight hours of dispersed light - ideal for lighting rooms; or four hours of focused light - ideal for studying. It has a handle for hanging or carrying.



To see more lights sold in Kenya, visit www.sunnymoney.org





The impact in Kenya

Solar lights have a tremendous impact on the income, education and health of families in Africa. Our monitoring, evaluation and research provides evidence of the impact that SunnyMoney has in Kenya.

2013: The big picture

- 156,000 SOLAR LIGHTS SOLD
- 1 MILLION PEOPLE HAVE ACCESS TO SAFE, CLEAN, BRIGHT LIGHT
- **860,000 PEOPLE** EXPERIENCING BETTER HEALTH THANKS TO REDUCING THE USE OF AIR-POLLUTING KEROSENE LAMPS
- \$90 MILLION SAVED FOR FAMILIES FROM REDUCING SPENDING ON LIGHTING ALTERNATIVES LIKE KEROSENE, CANDLES AND BATTERIES*
- 310 MILLION HOURS EXTRA STUDY TIME FOR CHILDREN USING THE SOLAR LIGHTS FOR HOMEWORK*
- 275,000 TONNES OF CARBON DIOXIDE EMISSIONS AVERTED DUE TO REDUCED KEROSENE LAMP USE*

*IN TOTAL, OVER THE LIFETIME OF THE SOLAR LIGHTS

90% of solar light users we have interviewed use kerosene lamps as their main source of lighting prior to buying a solar light.



After a solar light purchase, an average family displaces the regular use of **nearly two kerosene lamps**. This means that over the lifetime of a solar light, up to **two tonnes of carbon dioxide** emissions are averted.



Much closer to home, reducing kerosene light use also means less indoor air pollution. Eight in ten of customers report **improved health** after buying a solar light, including a reduction in respiratory illnesses, coughing, eye irritation and chest problems.



Because SunnyMoney distribute solar lights through the school network (find out more about that on p. 4), 80% of customers tell us that their children use the solar lights to study. This means that children are doing an **extra one hour of homework each day**, after dark.



All of Headteachers we've talked to say that there is a difference in students with solar lights; notably there is an **improvement in motivation**, **performance and/or reading and writing skills** at school as a result of this.



Because families are reducing their expenditure on other lighting products, this is **saving them nearly \$115** a **year**, on average. That's over 10% of household income; a significant amount. The top most common uses of savings are **food**, **school fees and investment** in farming inputs or business; this shows how a solar light can start a virtuous cycle of development and progress.



Families talk of **improved security and safety** due to this brighter, more reliable lighting. Families also have the opportunity to have improved social interaction and **family time** without fear of running out of kerosene or batteries for lighting.





Our research work

SolarAid have a dedicated department that conducts research and impact measurement.

This department was set up in late 2012 and since then has conducted over 12,500 research interactions – that means observations, interviews and surveys. We interview members of the public and conduct market studies to

understand existing behaviours of household lighting and spending, as well as awareness and opinion on pico-solar lights. We talk with solar light users to find out any change the lights have brought. We also work with external research partners to verify our own work and ask bigger questions around the effectiveness of what we do *and* the effectiveness of pico-solar lights as a tool for development.

Our research results allow us to continually learn and improve the way we work; adapting our programmes to ensure we reach the most people possible. It also allows us to advise on policy, make recommendations to governments and fully explain the impact a pico-solar light can have for families in Kenya.



KENYA RESEARCH TEAM

External research

A report published in December 2013 by **The William Davidson Institute** assessed SunnyMoney's activities and efforts in reducing poverty's negative impacts on children age eight years and younger. The *Access to Clean Lighting and Its Impact on Children: An Exploration of SolarAid's SunnyMoney* found that:

- Once a solar light is purchased, families begin to save money in the long term, by reducing kerosene costs and kerosene-related medical expenses enabling more financial resources to be channelled towards their children's needs.
- There is increased ability for children to study longer hours and spend more time with parents and siblings on educational activities.
- The children also benefit from the reduced exposure to kerosene's toxic fumes and reduced risk of burns.
- Children in the community benefit from the improved quality of ambient air and reduced emission of carbon dioxide, released when burning kerosene.

"My kids study hours have increased because before getting kerosene was a problem and now that I have the solar light which is good."

Philip Murgar solar light owner Narok

If you have any questions about our research work, please contact our Director of Research & Impact Kat Harrison on Kat.Harrison@solar-aid.org.





Meet a solar customer

David Kirui bought a d.light S2 from SunnyMoney.

David bought his solar light during the SunnyMoney School Campaign at his children's school, Morao Primary in Nandi. A year later he explained to our research team that the solar light has saved his family money, improved the family health and his children's education, and enabled him to extend the productive farming day:

"[The solar light] is very bright. It is very small yet it can be used even when weeding crops at night like kale."

David Kirui is the head of a household of eight people with five children. He thinks his children's health and education opportunities have improved:

"The children use [the solar light] for studies... We are no long coughing or sneezing and [there is] improved studies as the children now study up to 9pm and then wake up as early as 4am to continue their studies. The d.light is giving them more light to study."

The household doesn't have any electricity and before the solar light, they lit their home using two kerosene lamps; spending \$60 a year on this. He told us that he bought the solar light because:

"...kerosene has become too expensive... [The solar light] is clean energy and is better than kerosene lanterns by 20 times."

Since purchasing the solar light, the family now use just one kerosene lamp and save \$18 a year. David has recommended his solar light to 10 of his friends and told us that he wants to buy two more.

Meet a teacher

Augustine Rono, a teacher in Kenya, attended a meeting at a local school in her district where she met the SunnyMoney team and was told about the benefits of solar lighting. Augustine was given a solar light to take back to her school and demonstrate to her colleagues, students and community members.



"During the Chief's barazas and meetings at the school, I [told] the people of how it is economical and environmentally friendly."

After seeing the solar light, some of the parents at Augustine's school decided to buy one. Many of her students are now benefitting from brighter, safer light for longer and when we spoke to Augustine this year she told us that:

"I have noted great difference in terms of improvement in academic [performance]. The students also have ample time to study as they are not worried [that the] fuel will run out."

Working with teachers helps SunnyMoney to educate communities about the benefits of solar and reach more people.





The future

Tens of thousands of solar lights now shine across Kenya, but there are still 34 million people living off-grid with no access to power.

We are proud of what we have achieved but there is still so much more to do. In 2014, we aim to bring solar lights to tens of thousands more households across the country. For this to happen we need to:

- Expand and adapt our innovative model to reach those most in need;
- Strengthen our partnership with the Kenyan government to support a more sustainable solar market for all;
- Build on our research to share knowledge and use the learning to improve the effectiveness of our work;
- Work alongside fantastic donors and partners who understand and support our approach.

"I would like to buy but no solar lights [are] available in the area."

Ca;istus Juma, Kericho

We cannot do this alone. Join us in the fight for clean light in Africa and help us to eradicate the kerosene lamp for good.

Get in touch

IN KENYA

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