

"Power is Knowledge" Project Field Tests of Mobile Phone Chargers for Rural Kenyan Women

*Laura Murphy, PhD
Department of International Health &
Development, Tulane University
Email: lmurphy2@tulane.edu
Website: www.lmurphy.net*



Summary

"Power"—portable solar and hand-crank electrical generators—can “bring knowledge” to rural western Kenya where there is no electricity. The FreePlay “Companion” (below, right) is a handheld solar radio, flashlight, and hand-crank non-solar charger. Well-received in a pilot test in Kenya (January 2009), it is particularly popular among women, who are generally less mobile and lack cash. The project will document its use among 10 women in a large village in Bungoma District, Kenya through the sun and the rains and compared to solar-only (small solar phone charging systems). In New Orleans, I invite undergraduates to get involved in, help test, then present and discuss the project in classes and in New Orleans. I will use the findings in my teaching, and to advance my research on “power” issues affecting rural Kenyans.

Background & Problem Statement

How can “Rosemary” —mother of 6, step-mother to 7, farmer, HIV/AIDS support member—charge her handset and stay connected via cellphone when the nearest electricity is at least a ½ hour walk away? Often, she can not. Meanwhile, eight hours away in Nairobi, inferior solar chargers sell sporadically to a more affluent urban market (and mostly men). In the US, Europe, and Japan, trendy eco-products serve travelers, iPod owners, and the hurricane-weary (as emergency phone chargers). Can we tap into this creative and useful supply chain to help rural African women overcome the digital power divide? Mobile phones bring “light” into their lives, said the Kenyan women in my study of technology in a village. The phones must of course be switched on. Yet, electricity has not spread at the same pace as mobile phones. Instead, rural owners walk out and pay about 30 cents (where a daily wage is \$2-3) to charge their phone batteries in nearby market towns that are served by grid electricity. In January 2009, I started to address this power gap, bringing a few solar and non-solar phone chargers to Bungoma.

We found that solar is just part of the solution. The sun does not always come out. When it does, it is easy to forget to put the solar cell out to recharge. Then, when you do: theft is a concern. Private, secure space is hard to find. Solar devices cost a lot (>\$70). The Companion (left), is cheaper (\$33), combines radio and flashlight (charged by solar) plus “anytime, anywhere” crank phone-charger. The response? “What a wonderful product! Can I buy one?” “It is good during the rainy season and at night!” The long rains loomed in their minds even as we chatted under the blazing January sun. The device merits a real test to ensure it works well before they spend hard-earned cash.

Proposed Activities

Over a period of about 10 weeks over May, June and August 2009 we will test the Companion with 10 women much like Rosemary.

These are women with large families, farms to tend, income-generation activities, self-help groups and generally busy lives, but of varying ages, education, and experience and who already own phones. We know this from my prior survey data for this village of 850 households.

After a little instruction, they will be able to use it as they wish but keep track of it using project-specific logging and data collection system. For comparison, in parallel we will try out 3-5 "solar-only" chargers (hand-held, portable, solar-powered mobile phone charging devices).



Basically, data will be recorded by the women through special "use diaries" (in words, numbers, and pictures, by themselves and/or their children). We will use SMS/text-messaging to check in. We will visually record actual uses via digital still and (short) video, with cameras that will circulate among the participants. We will compile their experiences.

The women will tell us what it means to "have power". Who uses it? Who benefits? Does it "work"? Are the radio and flashlight worth it? Did it ever fail them? We might hear that the crank-handle broke after 2 weeks, or that a husband ran off with the FreePlay, radio blaring.

Their written records, statements, and visual images will enrich lectures to local schools, NGOs, and District offices. Nakumatt, the Kenyan chain with the import license, might decide to actually stock the device. The FreePlay Co. will hear their recommendations for improving the devices.

Back in New Orleans (i.e., spring, summer and especially fall semester of 2009), several Tulane undergraduates will be invited to design and lead discussions at Tulane and in NOLA schools, churches and other audiences (i.e., as service learning projects) around energy, poverty, climate change, and "power" in the world. Undergraduates can help interpret findings locally: NOLA faces similar power issues. I also aim to reach about 100 students through guest lectures (i.e., for courses in Payson, Public Health, Latin American Studies and other programs). Students can also get involved in my on-going research for their theses. I will integrate these materials into my own regular series of courses on development, environment, and technology. This field trial will serve as a seed grant for me, too. It will help me refine methods for monitoring and data collection, especially with low-literacy women) for an academic study of technology and "power" in Kenya.

This project is being supported by the Newcomb Foundation at Tulane University. They have generously agreed to cover the cost of the FreePlay devices, a field research assistant and other local costs.

For more information, see the "Power Is Knowledge" project narrative report and slide show from January 2009 field trials at www.ilmurphy.net.