



Women's Energy Project

Caprivi Region, Namibia and Mbala Area, Zambia

Rural women alleviate poverty in Namibian and Zambian conservation areas with the help of renewable energy technologies by Carol Murphy (Elephant Energy) and Erica Rieder (WWF Zambia)

One way to alleviate poverty is to reduce expenditures on essential domestic items. Sixty two women from two neighboring countries in central Africa (in south-western Zambia and north-eastern Namibia- refer to map) have succeeded in doing this. By using the latest in micro-solar lighting made available to them through Elephant Energy (a trust registered in the United States and Namibia), they greatly reduced the money they spent to light their homes at night.



They did this in the context of a project implemented by Elephant Energy to expose rural women to new, micro-solar light technology and fuel efficient cookstoves so they can meet their energy needs in a cheaper, more sustainable way, reduce deforestation and mitigate the effects of climate change. The women, who live either in state or community conservation areas in the Kwando River Corridor, a wildlife dispersal area and key part of the Kavango Zambezi Transfrontier Conservation Area, were organised into groups of eight. The members of each group rotated eight items (six solar lights/chargers and two cookstoves) on a weekly basis amongst themselves, allowing each woman to use each item for a one week period in November and December 2010.

“Since the project started, I have never bought a candle for my house,” said Fiona Malimi from Sikaunga area of Kwandu Conservancy, Caprivi Region, Namibia. Across the border in an inhabited area of Sioma Ngweze National Park, Western Province, Zambia, Joyce Maiba reported that she was, “saving money because I do not have to buy anything for lighting.”

They said that the money they saved by not buying fuel for lighting (paraffin, matches, candles, batteries, electricity from the grid) was used buy food to increase family nutrition and health, and to invest in agriculture and other productive activities.

Some of the women also saved money they would have had to spend on charging their cell phones because some solar lights included cell phone charging capacity. Three entrepreneurial women seized the opportunity to earn cash from charging other people's phones. One of the solar lights functioned as a radio as well, improving access to information about affairs outside their village without the need to buy batteries.

The lights do not produce smoke, will not burn people or property, and can be handled easily both inside and outside the house. The women also reported that lights allowed them to follow safer, healthier and more comfortable lifestyles at night and early in the morning. Anetty Kachitomwa (a leader of the Sesheke women's group in Namibia) said her 16 year old son used the lights to study at night which helped him to get distinction for his end of year school exams.

In addition to saving cash, these women have also been able to better protect themselves and their property from wildlife damage. One third of the women reported successfully deterring wildlife using each of the six different types of solar lights that they tested. Eleven wildlife species were deterred (elephant, hippo, bush pig, spring hare, duiker, hyaena, leopard, wild dog, genet, venomous snakes (black mamba, cobra and puff adder) and scorpions.

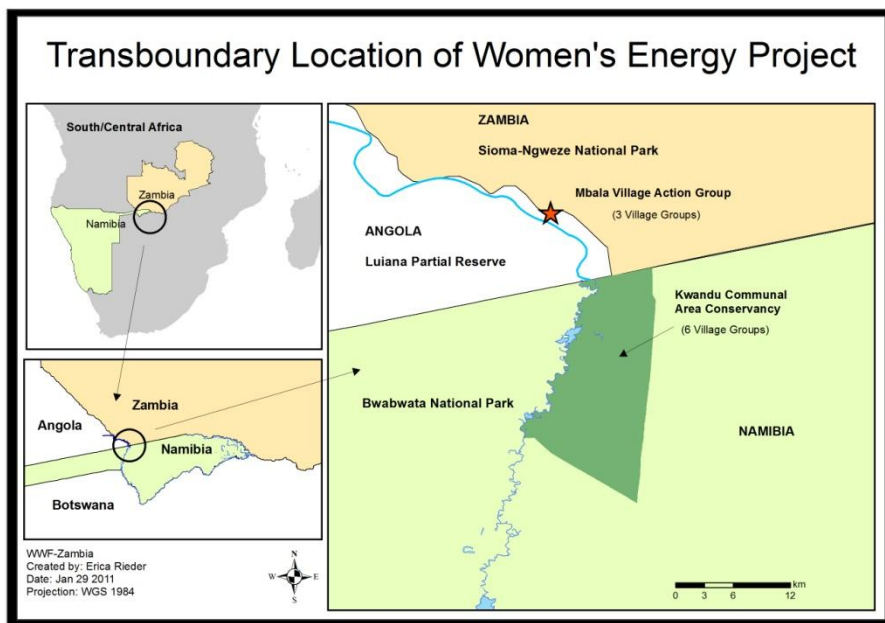
Irene Tubengise (Mwanzi area) said, "I truly like this product. Because in December last year, I used the light when a hyaena wanted to kill my cattle in the kraal. I used the product to protect my animals." Behaviour like Irene's is contributing to human wildlife conflict mitigation and increasing peoples' tolerance to wildlife damage, which bodes well for transboundary conservation efforts in the area.

Another way to alleviate poverty is to reduce the time women spend doing domestic chores so they can spend more time in productive activities. To create more time in their day, the women experimented with the use of energy efficient cooking stoves instead of using the open fire.

A survey conducted at the start of the project revealed that on average, women went three times a week to forested areas to fetch wood. Women reported that they saved time because they needed to fetch less wood or could send their children to carry back less wood, because the stoves required fewer and smaller pieces than traditional cooking methods.

The efficiency of the stoves also yielded much faster cooking times. With their extra time, women farmed more, worked for cash, did their domestic chores more effectively or had time for leisure. The new stoves generate less smoke and soot than an open fire, meaning less washing up. Being portable, they could be used inside the house when it was raining (where they also acted as a heater), in the shade or at the fields (eliminating the need for a trip home for a midday meal).

The project involved placing information about the use of the solar light technologies squarely in the hands of the women. As the women mastered the new technologies, they gained confidence. At the end of project assessment meetings, women frequently commented that they were pleased they had learnt something new. Viona Bafumisi (Kongola area in Namibia) said, "We did not know that we could use these products properly. These lights have changed our lives." Other project highlights included two women who gave birth at night with the help of the solar lights, one a home birth in Zambia and one in Namibia at the clinic during a power cut on the electricity grid.



Cash income is limited and demands on cash plentiful. Although all women reported a positive response to the solar lights, only two women were able to afford to buy a light of their own. Suggestions by the women to make the lights more affordable included opening a local sales outlet to use at times when they do earn cash (through sales of their maize after harvest or sale of their vegetables in winter months). A local outlet reduces transport costs to the Elephant Energy shop, which is 120km or more away.

Elephant Energy's mission is to promote rural development and nature conservation through the dissemination of appropriate, low-cost renewable energy technologies. It works in partnership with conservation NGOs in Namibia and Zambia, including WWF and IRDNC (a local Namibian NGO). They run a stall selling solar products at the open market place in Katima Mulilo, Caprivi Region, Namibia.

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