



## Lighting the way: The role of handheld solar lamps in improving women's and girl's perceptions of safety in two camps for internally displaced people in Haiti

***A solar lamp distribution in post-earthquake Haiti provided a clean and popular alternative to traditional lighting sources but did not address the safety and security concerns of women and girls.***

During humanitarian crises the gender inequities that underpin gender-based violence (GBV) are exacerbated, placing women and girls at increased risk of violence. Internally displaced people (IDP) and refugees are uniquely vulnerable to GBV; inadequate facilities and limited resources expose women and girls to the risk of sexual and economic exploitation, trafficking, and other forms of GBV. While guidelines for GBV prevention in humanitarian settings exist, information on how to implement and measure the impact of these interventions in local contexts is limited. Though it is widely cited that improved lighting in refugee and IDP camps improves the safety of women and girls, little research has been conducted on the effectiveness of these interventions in reducing risk to violence.

By March 2013, almost 350,000 people displaced during the 2010 earthquake remained in 450 IDP sites across Haiti. In 2012, the International Rescue Committee (IRC) identified numerous issues for women and girls living in camps including increased vulnerability to violence and susceptibility to exploitation, and obstacles to accessing quality medical and case management services for survivors of sexual violence and other forms of GBV. As part of the US National Action Plan on Women, Peace and Security (NAP), the IRC with support from the US Centers for Disease Control and Prevention (CDC), distributed handheld solar lights to all households in two IDP camps in Port-au-Prince. The IRC and the CDC evaluated the impact of this distribution on women's and girl's perceptions of their own safety in these IDP camps from August 2013 to April 2014, four years after the earthquake.

- **Ninety-five percent of women reported using the handheld solar lamp at least once a day. The lamps became their most commonly used lighting source, both in and outside the home.** Women reported using the lamps for a wide range of daily activities including cooking, charging mobile phones, and lighting their way to the toilets. Lamps replaced more hazardous forms of lighting - like candles or kerosene lamps – potentially reducing the risk of fire and the negative health consequences of burning kerosene indoors.
- **Women did not report improved sense of safety as a result of the lamps.** Women's perceptions of their own safety remained the same or worsened six months after the lamp distribution. Solar lamps did not address women's reported primary safety concerns – generalized violence and crime, the presence of criminals, including thieves and vandals. Most women surveyed asked for increased security forces, better public lighting, improved camp infrastructure, and more secure shelters in order to improve their safety. About 11% of women surveyed asked for more handheld solar lamps.

## Evaluation

In January 2010, an earthquake registering 7.0 on the Richter scale devastated the Haitian capital of Port-au-Prince and surrounding areas, claiming over 200,000 lives and displacing over 1.5 million people. Information from the Camp Coordination and Camp Management Cluster in March 2013 revealed a situation of protracted displacement for many, with 350,000 people remaining in 450 IDP camps across the country.

In September 2013, the IRC's Women's Protection and Empowerment program distributed handheld solar lamps to all households in two IDP camps in Port-au-Prince - Camp Toto and Camp Sinai.<sup>1</sup> The IRC chose to distribute the d.light S300 Solar Lantern based on the unanimous preference of nine women who field-tested five handheld solar lamp models in May 2013.<sup>2</sup> At the time of the distribution the two camps had a combined population of 5,783 people -- 2,057 of which were females 15 years of age or older. Both camps were managed by the International Organization for Migration and were already receiving some form of assistance from the IRC. Key differences in size, infrastructure, and security presence in the camps at the time of distribution are highlighted in the table below.

Figure 1. Woman who received a solar lamp through the distribution



Table 1. A Tale of Two Camps

	Camp Toto	Camp Sinai
Total Population	4,297	1,486
Street lights	Solar street lamps	None
Shelter	Wood, spaced apart	Tents, crowded
Security forces	Police, United Nations	Minimal

To compare women's perceptions of their own safety before and after they received a lamp the IRC and the CDC randomly selected 875 females aged 14 years and above to participate in the study (500 in Camp Toto, 375 in Camp Sinai). The average age of participants was 31 years, and most had been in the camps since the earthquake in 2010. Each person participated in a baseline survey before the lamp distribution took place (August 2013), three monitoring surveys conducted every other month, and an endline survey administered seven months after distribution (April 2014). At baseline and endline, participants were asked about sources of lighting they used, their participation in nighttime activities, and their sense of safety in the camps at night. During the monitoring and endline surveys, IRC staff visually verified the presence and functioning of the solar lamps. This quantitative data was complemented by focus group discussions conducted at baseline and endline, with a total of 80 participants, as well as baseline and endline safety audits to capture the observable physical environment of the camps at night.

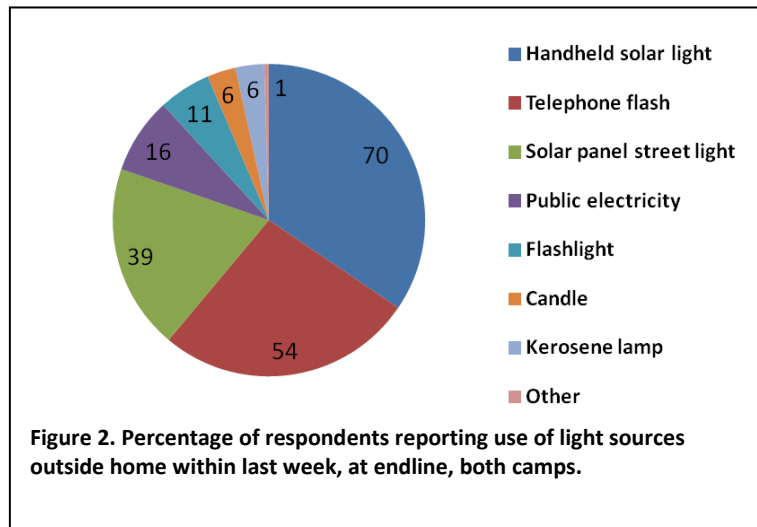
<sup>1</sup> The full name of Camp Sinai is Camp Rue de Nimes/Sinai.

<sup>2</sup> Women lived invulnerable urban neighborhoods in Port-au-Prince and were involved in IRC gender-based violence prevention activities; not the evaluation.

## Results

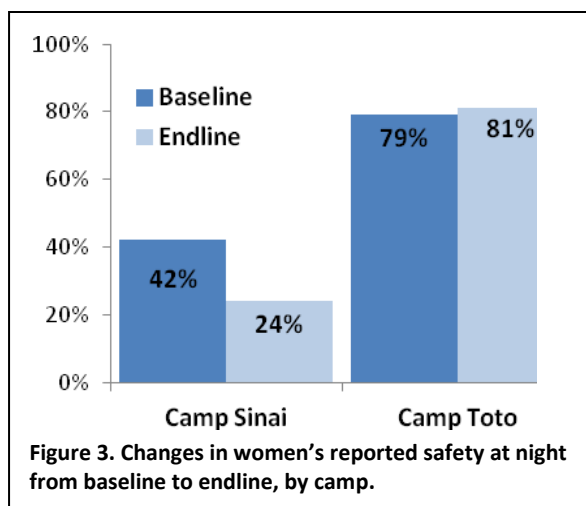
### Women and girls reported liking the handheld solar lamps and using them in their daily lives.

Over 95% of women in the study reported using the lamps at least once a day and said they would recommend them to friends. The solar lamps became the most popular source of lighting both in and outside the home, with 85% of women reporting using the solar lamps inside, and 70% outside, in the past week (see Figure 1). Women reported using the lamps when cooking, to light their way to the toilets, to light their homes and vendor stalls, or to charge their mobile phones. Girls also reported using the lamp for studying and reading. Women said the lamps were easy to use and that they reduced the risk of fire. Indeed, use of flammable lighting sources dropped from baseline to endline: in particular, the use of kerosene lamps inside the home dropped by 57% in Camp Sinai and 47% in Camp Toto, though this change cannot be attributed directly to the use of the handheld solar lamps.



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**Women and girls kept the lamps and could use them as they wanted.** Eighty-four percent of women reported having their lamp seven months after the distribution. Ninety-three percent also reported that the lamp was available to them the last time they needed to use it, indicating that most women were able to maintain access to the lamp over time.



**The handheld solar lamps did not help women feel safer or more secure in the camps.** Though after lamp distribution women and girls reported going to places in the camps where they had previously felt unsafe (i.e. latrines, church, shops), the solar lamps did not have an impact on women's overall perception of their own safety. In fact, women in Camp Sinai reported a *decrease* in their sense of safety at night from baseline to endline – from 42% to 24%. Women in Camp Toto reported no significant change in feelings of safety at night (see Figure 2). Notably, the main sources of protection cited in Camp Toto, where women

felt considerably safer than in Camp Sinai both before and after the lamp distribution, were the presence of security forces, and to a lesser extent, street lighting – both of which were reported as inadequate or non-existent in Camp Sinai. Among women who reported going

out at night, 9% in Camp Sinai and 15% in Camp Toto named the solar lamps as a source of protection while outside the home.

**Women reported unsafe camp conditions that worsened over the course of the study.** Particularly in Camp Sinai women described a general atmosphere of crime, violence, and mistrust, including sexual violence and harassment. The main reasons women in both camps cited for feeling unsafe were extortion from criminals entering the camp, and the presence of vandals and thieves who damaged and broke into camp residents' shelters. Women in Camp Sinai also reported general physical violence, rock and bottle throwing, and gunshots as principle reasons they felt unprotected.

**Women requested increased presence of security personnel, public lighting, and better infrastructure in the camps to improve their sense of safety.** When women in both camps were asked what would make them feel safer, they most commonly requested increased presence of security forces, particularly the police (67%), but also the United Nations and community patrols, as well as better public lighting. In Camp Sinai, women also reported that sturdier shelters, a gate at the entrance, and an enclosure surrounding the camp would improve their sense of security. About 11% of survey respondents in each camp asked for more handheld solar lights.

### **Lessons and Recommendations**

- **Handheld solar lamps are an important personal resource for women and girls in humanitarian settings. Operational agencies and donors should continue to support their distribution.** Nearly all of the women surveyed reported using the lamps for a range of daily activities. Many women reported that the lamps posed a reduced risk of fire and thus were safer than the light sources they had been typically using. The introduction of the solar lamps may have also contributed to a decrease in the use of kerosene lamps, which are costly and can have serious health consequences.
- **Handheld solar lamps alone cannot effectively address the complex root causes of gender-based violence. Operational agencies should provide a more comprehensive risk-reduction package for women and girls in emergency settings.** While some women in the study reported a degree of increased mobility when using the lamps and derived some sense of protection from the visibility they provided at night, the lamps as a standalone intervention did not address their main sources of perceived danger and did not reduce their perceived risk of violence. Given the complex nature of the root causes of gender-based violence, interventions should employ multiple prevention strategies, in addition to solar lamp distributions, to effectively address the risks that women and girls face.
- **Humanitarian organizations should regularly consult women and girls to inform violence reduction and security interventions.** The women participating in this study clearly articulated sources of danger in the camp that were not addressed by the solar lamp intervention. They also requested alternative responses to their concerns, including improvements to the physical infrastructure of the camps, such as lighting, fences, and gates, as well as increased presence of security forces. Humanitarian organizations should seek the input of women and girls on an ongoing basis and implement their recommendations for more effective risk-reduction.