



Sumar Lakhani Foundation - Solar Lamp Evaluation Report

Date:

April 5, 2016

Program:

Solar Lamp Pilot Project in collaboration with Sumar Lakhani Foundation

Program Overview:

It has been almost a year since Rukmini Foundation (RF) partnered with Sumar Lakhani Foundation (SLF) in an effort to provide alternative energy source to the scholars in Pharping. Nepal faces a severe energy crisis, where residents face more than 10 - 20 hours a day without electricity. Many people living in areas like Pharping face critical problems as they don't have the economic capacity to afford alternative energy source like inverters or solar back-ups. To address this challenge, RF is working with SLF on a pilot project focused on distributing solar lamps to Rukmini scholars. Solar lights have proven to be a very good alternative source of electricity. These lamps have been developed by Unite to Light, are easy to use with rechargeable AA battery, and have been made to last for at least a decade or more.

Program Evaluation:

1. How many lamps have been distributed?

- 21 solar lamps were distributed in total.
- 19 smaller study lights and 2 bigger solar lamps.

2. What is the current status of the lamps?

Our team conducted a short sampling survey and visited 10 families to check the status of the solar lamps. They found that majority of the lamps were in great working conditions and the families were overall very impressed with the durability of the product. 2 lamps were not working properly, however this was due to human error and not a manufacturing issue.

3. How are the families utilizing the lamps?

The lamps are being used primarily by the scholars to do their homework and nighttime studying. However, when the lamp is not being used by the scholars, majority of the families also utilize the lamps for other purposes like in the kitchen or as a portable torch when going to the bathroom at night. The lamps have been proven to be very useful for a small family.

4. How often are the lamps being used and how well have they been performing?

Majority of the families have said that they use the lamps on a daily basis. On average, the families said that they use it 3 hours per day. Few of the students said they use the lamps for up to 5 hours in a day. It seems the variation in the performance of the lamps are mainly due to how long the lamps have been left out in the sun to charge.

5. Is there any way to gauge the impact on the student's academic performance etc ?

It is still too early to see a meaningful impact on student's academic performances - however we are monitoring their grades to track improvements.

6. How well has the pricing plan worked out for the families?

The original plan of selling these lamps at a price that is easily covered from the savings the family make from the cost of candle and kerosene has worked out better than we initially thought. At first, the families thought that the lamps may be an expensive investment, but once the team was able to explain how the "payment" would work they started to understand. When they began to save the money they used in candles/kerosene - they began to realize that candles were also an expensive investment, but lacked the durability and high performance that the solar lamps were providing. Majority of the families have almost paid off their lamp. Many who purchased candles have also seen a decrease in daily expenditure and have said they now don't have to worry about the fire hazard candles pose.

7. What do you think the response and possible demand will be to the larger lamps that can illuminate the whole room? We have identified a good manufacturer of these large lamps.

The two families that received the larger lamps were very impressed with the performance of the lamps and have recommended it to other families. Currently, we think due to the cost difference, the demand for the bigger lamps may not be as high as the study lamps.

Program Expansion:

1) Do we want to expand the program and provide more lamps?

The pilot project has been a huge success and all the recipients of the lamps have been very happy with the product and its performance. RF would like to expand the project and provide lamps to scholars and their families who are interested in making this investment.

2) If so, who will be distributing these to? What are the needs for the students we are distributing it to?

Currently, we are waiting for our new school year to start, which will be at the end of April. Once we have our new scholars, our team in Nepal is planning to explain to them the sustainability concept behind this Solar light project, including the payment plan, and see how many students and their families would be interested in this investment.

The needs for these students will be similar to the ones we distributed to in our pilot project. These students need the lamps so that they can use it to study and do their homework during night time. The lamps will also provide a safer alternative to the most commonly used source of light - kerosene lamps or candles.

3) How many more lamps are we thinking of distributing? Are we looking to get more of the study lights or the bigger solar lamps?

We don't yet have concrete numbers, but our team's rough estimate is at least 15. We will have more concrete information after the new school year begins. Some of the families who already have the study light have expressed their interest in getting the larger solar lamps - the team in Nepal will get more details when they do another survey an end of April.

Pictures from Field Visits



Pramila (Mentor) chats with families and Rukmini scholars regarding the usage of the solar lamps.



Below: Solar light being charged on the roof.

