WWF solar project

Pupils can use electricity instead of lamps to revise at night

gardens.

"Most pupils drop out of school to provide labour. Parents tell their children to graze goats, fetch water and do other home chores. Some girls are married off for dowry," he adds.

He says keeping the children in school protects them from the traumas of domestic violence. Incidences of domestic violence in homes are high because of the high levels of alcoholism. Children are traumatised by these acts. When they are in school, children are protected.

Kitabu Primary School has a population of 638 pupils. A total of 331 are girls and 307 are boys. Primary Seven has 36 pupils (17 girls and 19 boys).

The headteacher says ever since solar was installed, no pupil has dropped out of school. He adds that more children in the lower classes are now joining the school.

"When we expose children to see and experience new things happening elsewhere in the world, we have hope it will interest them to stay in school," Mubatsi says.

He adds that electrification has helped curb teacher absenteeism at the school.

He says before they got power, teachers used to sneak out of school to go and charge their phones and conduct financial transactions on their phones.

The availability of electricity has boosted businesses

PATIENTS USED TO COME TO THE HEALTH CENTRE WITH THEIR OWN LAMPS, TORCHES OR CANDLES TO PROVIDE LIGHT IN THE WARD

Govt programmes

WWF's rural electrification project complements the Government's development agenda anchored in Uganda's National Development Plan II (NDP II) (2015/16-2019/20) which set a target of "30% access to electricity" by 2020.

Improving lives

Under the same project, WWF supplies solar home systems to rural households through an innovative approach that uses local community organisations as distribution agents.

WWF works with 62 Community-Based Organisations (CBOs) in 20 districts in the Albertine Graben providing a flexible payment plan that enables community members to acquire solar systems for lighting. The project has built the capacity of these 62 CBOs to be able to distribute, install, operate and maintain solar PV technology.

A household acquires the solar systems after making a down payment of 10% of the system's total cost. The rest of the money is paid in installments over a year. To date over 1,200 units have been sold.

Previously, several households in the area were using kerosene for lighting. Yet, kerosene is not only expensive, but the time spent in getting to the nearest trading centre where it can be bought is another factor. As a result, lighting was often limited (to save fuel) and this denied pupils reading light but also caused a heavy work burden to housewives who had to ensure that most of the house chores were completed before sunset.

That was not all for these rural households, charging phones was also another big challenge.

"We would travel long distances to charge our phones at trading centres. Unfortunately, our phones would not be fully charged. You would end up wasting money because the phone would not be fully charged and waste more time to drop off and pick the phone," one of the beneficiaries of the solar project says.

Households that have since acquired solar home systems now have a different narrative. Solar lighting is free of emissions, which have often affected the health of households. Additionally, the cost in terms of purchasing and transporting kerosene fuel is now no more. The brighter lights are also a vast improvement on the poorer light provided by kerosene lamps.

Students from different homes in these areas now have more time to study. Meanwhile, the women in these households no longer depend solely on daylight to complete their household chores. This has allowed them to enjoy leisure activities, which were originally a preserve of men.

Improved reading light

The solar home lighting systems have now replaced the kerosene lamps and this has greatly improved the quality of air indoors. The emissions often affected eyes of household members, especially children.

"When we were using kerosene lamps, our children often suffered from cough and teary eyes. My wife used to frequent health facilities for medication. My daughter had given up on reading at night because her eyes would pain the next day due to the dim light and emissions from kerosene," another beneficiary says.

With the solar lighting, the cough and eye irritations are now a thing of the past for this family. The mother in the home says she has more time for productive labour, which has improved the family welfare. Their daughter's grades have also improved, which she attributes to the brighter light she uses for her revision, which does not irritate her eyes.

Economic power

Unlike Kerosene, which you must keep buying regularly, the solar power system comes with no maintenance costs apart from the upfront installation costs incurred in acquiring it. For most families in the area, when the price of kerosene would shoot up, it meant reduced consumption of other necessities.

"This system has saved my time, money, and energy for purchasing and transporting kerosene from markets. Additionally, due to the efficient lighting, I have been able to start up a salon at my house. Women come to have their hair plaited until late in the night. Even in the night, I am able to continue working on my handicrafts. This has earned our household extra money which we are using to improve the welfare of our children," another beneficiary says.

Meanwhile, shop owners who have installed the solar systems say their incomes have improved. "When we were using kerosene lamps for our businesses, we often closed our shops early both for security reasons but also to avoid transaction errors due to dim light. However, with solar, we have extended our working time by two hours. This means increased sales for us," the shop owner says.

Another household that acquired the solar home system is using the lights for a poultry business.

"I used to wake up in the night to check if the kerosene lamp was on. Sometimes, the birds would get close to the lamp and die from excessive heat. That is now history," the beneficiary says.

She adds that the solar light has enabled her save on daily kerosene expenditure and guaranteed safety for her birds, which also means that she can have restful nights.

Information is wealth

Increased access to various entertainment and communication facilities is also another benefit that locals can now enjoy.

According to beneficiaries, some households have acquired radios and television sets, which has given them more access to broadcast information and better communication via mobile phones and the Internet.

"Although I owned a radio set before getting a solar system, I restricted myself to listening to news only and probably entertainment during the festive season to save my dry cells. That has now changed. We now listen to radio all day and all night because our solar system is able to charge it," he says. As a result, the communities have access to health, reproduction and farming information, which they are now using to improve their health and welfare.

Trading centres

The solar project plans to provide power to six trading centres in Kasese and Rubirizi districts by installing mini-grids in 2019.

A contractor has already been selected to supply, install, test, commission, operate and maintain the six solar PV mini-grids. Once operational, the mini-grids are expected to supply power to at least 900 households and 205 businesses to spur the use of electricity for productive use.