Lighting up Phobjikha valley

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When night falls, the valley of Phobjikha in Wangduephodrang literally turns pitch black. Except for the flicker of kerosene lamps in the distance there is just darkness and silence.



Local technicians install solar panel - Photo: Solar Electric Light Fund

Now all that is going to change. A pilot project has begun installing houses in the valley with solar panels. Out of 500 households in the valley the project will light up 151 houses.

"Some 16 families have installed the six light system and the rest will install the four light system," said Mr. Robert Freling of the Solar Electric Light Fund (SELF), a non-profit organisation based in America, which is providing the technical and the financial support for the installations.

But unlike the past the solar panels are not being given free of cost. The beneficiaries will pay for the system in installments over a period of three years. "It's a credit scheme to inculcate a sense of responsibility," said the Executive Director Lam Dorji of the Royal Society for the Protection of Nature (RSPN), which is assisting the project.

Previous solar lighting projects, which dished out free home lighting systems in other parts of the country failed miserably after initially brightening up homes for some time. It was partly because there was no back-up system to provide maintenance as well.

This maintenance aspect is also being taken care of by the project. The project has trained about seven grade eight and ten students from Phobjikha village to check the tubular batteries and to dust off or clean the panels of bird droppings to increase their efficiency.

"These solar modules last for 25 years and the batteries for more than three years," said Prashant, the Indian technician who trained the students. "But they require proper maintenance."

The six light system costs Nu 21,500 and four light system Nu 16,500. The beneficiaries will pay Nu 6,000 for the six light system and Nu 4,000 for the four light systems on installation and the balance over the next three years.

"If they want to pay the total sum within the first year, they will not be charged any interest," said Lam Dorji. "After the first year they will be charged an interest rate of seven percent."

The villagers are happy and don't mind paying for the solar lights given the benefits it will bring to their lives.

Paying a sum of Nu 4,167 over three years was affordable said Tshewang Zam, 47. "I hope I can pay the installments with the income from the sale of potatoes." Tshewang Zam said that the first time solar lights came into her house a couple of weeks ago, her family members and neighbours gathered at her place and gossiped for hours. "Besides that we can even work at night," said Tshewang Zam. "We usually stitch embroideries, weave and our children can now study under better conditions."

Aum Lhadon, 53, said her sons who are working would top her income from the potatoes to pay her installments. "Our house looks more clean now, with the lights," said Aum Lhadon. "Ngultrum 4,167 in three years time sounds reasonable enough."

Gomche Khandu, who was born and has been living in Phobjikha for the last 73 years, said that he remembers going out to collect mebshi (wood used for lighting) to be used as light in homes. "Some of us still do," said Gomche Khandu. "Now we will not have to do that anymore."

The project also installed a seven light system in the Phobjikha health centre which was donated by Joseph and Patricia Hanwright who were with the SELF team and a 750 watt system in the RSPN centre to run the computers and other office equipment.

Mr. Freling said that people in the urban areas took electricity for granted, but in the villages it meant improving the lives of the people and conserving nature. "Solar lights are a practical and an immediate way of advancing the lives of the people," said Mr. Freling. "Apart from the high cost and other difficulties for the government in bringing grid electricity to Phobjikha, grid electricity in the valley would be hazardous for the endangered black necked cranes." The overall cost of the project including the installment, equipment and

training charges of about US \$ 100,000 was provided by SELF.



A woman switches on the lights in her home for the first time Photo: Solar Electric Light Fund

The solar lighting will also spare the villagers from having to use kerosene lamps and candles, which emit fumes that are hazardous to health especially in poor ventilated village houses.

At the moment more than 60 households have been installed with the solar home systems and 60 more will be installed next month.

Lam Dorji said that the interest generated from this credit scheme project will be contributed to the community fund to provide lights to the remaining households in the valley.

The managing director of Tshungmed solar, Yishay Dorji who brought in SELF said that he first learned of SELF's project in Nepal, China and Sri Lanka.

"That is when I conceived the whole project and sought for electric funding from SELF in 1997," said Yishay Dorji. "It took over five years, it was a rough ride but it was worth it."

RSPN will be working with the national environment commission for the second phase, which is expected to electrify another 40 households not registered under the present project. "We are hoping to get some support from the UNEP for the second phase," Lam Dorji said.

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