



# Lighting Up Lives

Electricity is casting a new light into the remote areas of Bhutan. Now the people are healthier, more financially stable, and have brighter futures.



THIMPHU - Darkness used to fall early in the Himalayan country of Bhutan. In remote villages without electricity, this meant parents stopped work early and children could not do much studying at home. The lack of electricity also limited the work of hospitals and the availability of school facilities.

ADB and other international organizations such as the Japan International Cooperation Agency have helped dispel some of the darkness through a program of rural electrification. The ADF-funded Rural Electrification and Network Expansion Project, which began in 2004, has brought electricity to over 8,000 new consumers, including poor households, hospitals, and schools.

The project included a special feature to provide electrification kits to the poorest households. A large barrier for the poorest households is the cost to connect the house to the distribution system in the village, about US\$75, as well as the cost of doing internal wiring in the house. To address this, the loan developed criteria to identify the poorest households and provide them with the electrification kits, which included a load limiter switch (instead of a meter), cables for connecting to the distribution system, and wires and outlets for wiring the house.

As more villagers use electricity for light, cooking, and heating, people fall sick less often. In particular, fewer women now suffer from eye and respiratory ailments caused by kerosene lamps and wood fires.

As women increasingly use electrical appliances like rice cookers, they have more time to augment their family incomes with cottage industries like weaving and tailoring. Both men and women are able to work longer hours, thanks to electric lighting. Other income-earning activities that have increased in the project areas are microenterprises and cottage industry, including carpentry and carving.

Dorji Wangmo of Decheling Gewog village is delighted that she can now put on the rice cooker and sit to weave. "Sometimes I keep on weaving till late night because during the day I have to attend to other household works," she said.

Educational opportunities have improved for children and adults: children can study after sundown and adults attend evening classes conducted by the Department of Education in the project areas.

A villager in Gelephu village said, "Now we don't have to depend on timber for cooking and our children can also do their studies in a better way."

The project's environmental benefits include less pressure on forests as a source of household fuel. Since 1995, when ADB first supported a rural electricity project in Bhutan, kerosene use has come down from an average of 10 liters a month to 1 liter per household in the areas covered by the project.

Electrified villages have also reported a drop in theft, burglary, and vandalism.

The project, supported by a \$9.4 million concessional loan from the ADF, closed in 2007. A new project is expected to connect another 3,000 rural households over the next few years. ADB has supported other loans and technical assistance projects in Bhutan to build the capacity of energy sector institutions, and establish a regulatory framework and an institutional mechanism for setting and reviewing power tariffs.

"This is one of the main reasons for our success in Bhutan: support for investment operations is intertwined with capacity development," said ADB senior economist Abid Hussain.

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