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Solar Power Sheds Light on Ecological Park in Cancuén



Installing photovoltaics for communications and lighting in Cancuén National Park.

Archeological research has been conducted in the Cancuén area since 1998, through a consortium of universities and supporting local and international organizations. The major discovery of a Mayan archeological site in the region provided an opportunity to create synergies between local cultural preservation, environmental conservation and sustainable development for local communities. The aforementioned consortium is working to develop the Cancuén area as an archeological park, creating enabling environments in support of local community development processes, while supporting archeological research and preservation.

The communities surrounding Cancuén Archeological Park lacked access to modern energy services, and electrification for targeted end uses was identified as an important synergy for project development interventions.

With USAID funding, Winrock International and a Guatemalan NGO called Fundación Solar coordinated the provision of rural energy services for the park and the surrounding communities. These services include communications, lighting for community centers, schools, and park infrastructures, and other productive use applications, including illumination at the local maize mill. Fundación Solar also provided technical support, capacity building for participating partner organizations, and training of system users in the operation and maintenance of the solar powered systems.

A communication network was installed for the park, consisting of telephone and radio communication systems for use by rangers and boats traveling the river, enhancing visitor park services. The Visitors Center is now able to

Location:	Cancuén National Park and archeological site, In Northern Guatemala
Problem:	Lack of modern energy services in an Archeological Park and surrounding agricultural communities
People:	Rural poor communities surrounding the archeological park.
Solution:	Provision of lighting and energy services for community centers, schools, and park infrastructures; productive use applications
Timeframe:	2002-2003
Results:	Enhanced communication in and around the park; solar electrification of park facilities, local schools, community centers and a corn mill.

Cancuén is located on the border of two northern Guatemalan provinces. This area spans volcanic highlands and tropical lowlands, creating a lush transitional ecosystem with unique conservation value. Almost 75% of the population is made up of Q'eqchi' Maya villages mainly dedicated to subsistence agriculture, with little access to education and basic infrastructure, including grid-connected electricity.

provide services for the researchers working there; archaeologists can use the radio system to exchange information and findings, and can operate computers.

The installation of solar-powered lighting in 10 local schools in communities surrounding the park has increased the use of educational opportunities for both primary schooling and community involvement through parent meetings. Educational programs have also been launched in the park area to improve reading and writing skills for other community members.

Electrification has further benefited women from the “El Zapote” community, where a solar lighting system was installed at the local maize mill, resulting in improved working conditions for the women. Fundación Solar has provided the women who use the mill with training on system operation and maintenance.

Local organizations have also received PV-related training and capacity building. A careful technology transfer process has been built around the needs and skills of local residents.

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