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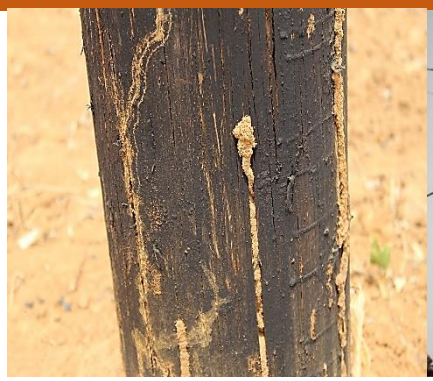
Rural Electrification Project in Cameroon

Enabling Rural Development through Lighting Communities

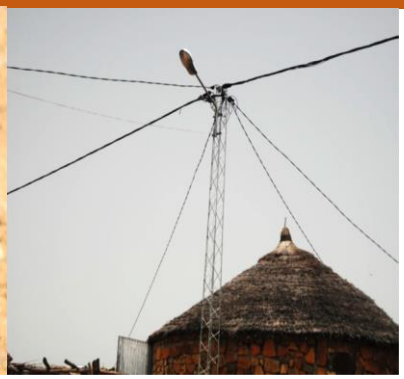
THE CHALLENGE

Electricity coverage in the rural areas of Cameroon was estimated at less than 15 percent when the project was approved. Over 50 percent of the country's population lived in rural areas with limited income generating activities, inadequate access to health care and essential medicines, and fewer study hours for students due to high operating cost of gasoline-run generators.

A TECHNICIAN IN HIS ELECTRONICS REPAIR SHOP



TERMITE INFESTED WOODEN POLES



STEEL POLES USED IN NORTHERN REGION

THE PROPOSED SOLUTION

- Finance a rural electrification project to provide **access to electricity to 80,000** people in **33 villages in 4 regions** (South, Center, North-West, North) through the installation of distribution networks, allowing them to enhance economic activities to alleviate poverty and raise living standards. The project cost was estimated at **US$ 10.6 million** and it was to be completed in **36 months** from its date of approval (Sept. 2005).

THE FINDINGS

- The project contributed to expanding electricity coverage **in 62 villages** (**188% of initial target**) through the installation of 247 km of distribution lines in three rural regions (Center, North, and North-West), reaching **about 75,000 people** (**94% of the target**). The Southern region was covered by a different project. Overall, access to electricity has spurred greater economic activities including establishment of printing services, mills, electronics repair shops, money transfer services, and the like. Students also have opportunity to **learn beyond daylight hours**, leading to better **learning outcomes**. Health centers are now open longer and provide services to patients under better conditions.
- The actual project implementation took almost 8 years instead of 3 years planned at appraisal. Furthermore, the project design did not factor in soil conditions in the Northern region where wooden poles were not suitable. Subsequently, a **change in design** occurred, as **wooden poles had to be replaced by steel poles**, leading to undue delays during implementation.
- Thefts of cables, isolators and other equipment are recurrent in some areas. Besides, human action (fires for hunting) and termite infestation lead to **recurring fall of wooden poles**, posing electrocution hazards and disrupting electricity supply for thousands of people.
- For several of the beneficiaries interviewed, paying their monthly bills prove to be very costly. Payment centers are few, and **transportation to get to them costs more than the bill** itself.

THE LESSONS

- Wooden poles are vulnerable to termite infestation, fire, damage and erosion due to soil conditions, and thus should be avoided in rural electrification projects. Instead, use of steel poles in the distribution lines can **ensure uninterrupted electricity** supply to the clients.
- Fostering strong ownership at the community level through **awareness campaign** is a prerequisite for project sustainability.
- **Convenient bill payment schemes**, such as meters with pre-paid cards or mobile phone payments, enhance project's viability.