

LEDs Brighten the Future of the World's Most Vulnerable People and Places

Gorilla reserve, Amazon basin, Sri Lankan refugee camps and Papua New Guinea first aid posts among new Light Up The World Foundation projects

By Grady Semmens

The cloud forests deep in the heart of Africa are the last refuge of the endangered mountain gorilla. Unfortunately, they are also one of the only sources of firewood for thousands of poverty-stricken humans that live next to the national park that is home to the last 700 members of the great ape species.

By providing an inexpensive source of solar-powered light and electricity to villages surrounding the Virunga/Bwindi Gorilla Reserve in Central Africa, The Light Up The World Foundation based in Calgary, Canada hopes to help curb deforestation, poaching and other threats facing mountain gorillas. The foundation started by Dr. Dave Irvine-Halliday, an electrical engineering professor in the University of Calgary's Schulich School of Engineering, has partnered with the Canadian International Development Agency and the International Gorilla Conservation Project on a two-year plan to outfit communities in Uganda, Rwanda and the Democratic Republic of the Congo with ultra-efficient, solar-powered white light emitting diode (WLED) lighting systems and newly-developed solar cellular phone chargers. By training community members to manufacture the devices, the project aims to create jobs and boost local economies while also reducing residents' reliance on cutting down trees in the gorilla reserve for fuel.

"We are focussing on areas where our technology can have the greatest impact on local people and provide them with safe, and environmentally-responsible energy and lighting solutions," Irvine-Halliday says. "Our projects are about more than just bringing light to people. Illuminating homes helps people pursue education and creates cottage industries that boost local economies."

Light Up The World is also working in 10 villages in the remotest areas of the Peruvian Amazon, aiming to install lighting systems in 200 homes, 10 schools and 10 community centres by the end of 2007.

"The primary source of light in these villages comes from burning tree worts, which only provides a very dim light and produces a lot of smoke that leads to respiratory illness and eye problems," says the foundation's CEO Kim Veness, who visited the Amazonian communities last year. "Providing a safe, reliable source of light is one of the most important things you can do to improve living conditions for people living in remote and ecologically sensitive areas," Veness says. "The largest source of greenhouse gas emissions in the developing world comes from dirty, hazardous and expensive fuel-based sources for lighting."

Light Up The World's newest project is in Papua New Guinea, where solar-powered WLED systems will be installed in nearly 2,000 first aid posts in communities across the island nation. First aid posts serve as the first level of health care for remote villages and are often nothing more than a simple structure made of wood or palm fronds where a health care worker is assigned to treat everything from emergencies to common illnesses. Serious cases are sent to the closest health centre or hospital. Many of the first aid posts have no electricity and rely on hazardous kerosene lamps for light, or have to close after sunset. The project was created in memory of Capt. Nichola Goddard, the first female Canadian soldier to be killed in combat last year during a military operation against Taliban forces in Afghanistan. Goddard was born and spent the first three years of her life in Papua New Guinea while her parents were building schools in the country in the early 1980s.

“Providing a safe and reliable source of light will dramatically improve the most basic level of health care in Papua New Guinea and eliminate the need to use kerosene lanterns, which present a fire hazard in first aid posts,” said Ambassador Evan Paki, Papua New Guinea’s ambassador to North America based in Washington D.C. “We deeply appreciate the assistance this will provide to the people of Papua New Guinea and are honoured by the Goddard family’s continuing interest in our nation. The fact that this project is conceived in memory of a young woman who gave her life for her country makes it even more meaningful.”

The foundation has also begun the final phase of its Tsunami Relief Project in Sri Lanka, installing light in 2,000 temporary shelters established to accommodate 10,000 refugees from the Dec. 24, 2005 tsunamis that devastated coastal communities in the Pacific. Light Up The World was one of the first aid organizations to respond to the massive natural disaster. This effort has expanded to include another 1,000 homes, due to its overwhelming success.

Light Up The World was founded in 1999 to improve the lives of the approximately 1.6 billion people --- or one-third of humanity – that has no access to electricity and relies on kerosene, wood, animal dung or other fuel-based fire for lighting. The foundation has brought light to thousands of homes in over 42 countries and has received international acclaim for its technological and social innovations. For more information about the Light Up The World Foundation and its projects, contact Roselyn Himann at r.himann@lutw.org or visit the foundation’s website: www.lutw.org