



INTERNATIONAL
YEAR OF LIGHT
2015

Photo: Flexiway Solar Solutions

Shining a light on developing countries using solar power.

For over 1.5 billion people around the world with no electricity, night-time means either darkness or the dim glow of an unhealthy kerosene lamp or candle. Such poor-quality lighting has a dramatic impact on health and educational opportunities, and on safety and security.

An important aim of the International Year of Light will be to promote the use of portable solar-powered high-brightness LED units in regions where there is little or no reliable source of light.

- 1 Safety for women and children**
Solar lights can provide a sense of security for those most vulnerable at night time, especially for women and girls at risk of gender-based violence or sexual assault in dark areas.
- 2 Education**
In regions where there is no electricity, solar lights charged during the day enable children to read and do their homework at night.
- 3 Life and health**
Solar lights are much safer than lighting fires or using kerosene lamps, which emit hazardous fumes and are bad for people's health.
- 4 Medical emergencies**
Urgent medical procedures can begin or continue into night time using the clean technology of solar lights.
- 5 Community prosperity**
Solar lights enable people to work beyond daylight hours (e.g. at home), increasing their earning potential and that of their local community and so alleviating poverty.

To find out more about how Concern is improving lives through solar power visit www.concern.net/solar. You can view solar light samples at your local library.

CONCERN
worldwide



2015
European Year
for Development



Solar lights in humanitarian relief and development

Concern Worldwide is a leading international humanitarian organisation headquartered in Ireland. It has operations in 26 countries across Africa, the Caribbean and Asia.

Concern's programmes cover long-term development and emergency response.

In all its countries of operation, but especially in the aftermath of disasters, access to electricity can be a serious challenge and, in some cases, impossible. Solar light and solar charging of other vital equipment can be a key component in trying to keep communities functioning. Indeed, in some cases, it can be the difference between life and death.

Concern is regarded as a leader in the usage of solar technology and has implemented large-scale community lighting projects in Haiti and Liberia. In many cases, these lighting solutions also provide mobile phone charging points.

In 2011, Concern established a relationship with an Australian company, Flexiway Solar Solutions, to develop a hand-held solar light. In 2013, Flexiway won the Australia Business Award for best ECO product. We worked together to develop the light from a prototype and the lights are now more robust and effective as a result.

Below is a photo of the models that were developed:

To date, we have distributed thousands of lights in Liberia, Sierra Leone, Burundi and the Philippines for use in development programmes and emergency distributions.

In Haiti, free-standing solar lights were installed in camps which provided shelter to thousands of people who had lost their homes in the devastating earthquake of 2010. After the installation of the solar lights, rates of gender-based violence in the camps fell significantly. Moreover, girls felt increasingly safe walking to school and attendance rates improved.

Small solar lights were distributed in large numbers to households in the Philippines in the wake of Typhoon Haiyan in November 2013 as part of Concern's non-food item kits. These hand-held lights could be charged quickly in direct sunlight and provided lighting to families in temporary shelters at night time. Some of the islands hit by the typhoon had never had electricity, and these solar lights became their first source of light in the evening. This ensured that children could read and family members could continue to work after the sun went down. As the power was still down for months after the typhoon, these lights remained very popular and many households continue to use them now, more than a year after the storm hit. Read on...





Star Quality!

Ireland rugby international and a global star in his position, Rob Kearney is a big fan of Concern Worldwide's use of solar light technology in developing countries and in emergency-response contexts.

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Light Lights!

Small, compact, lightweight, robust and interconnectable, Concern's solar light has a three-function push button switch to control the brightness and thin powerful batteries to reduce weight and thickness, without loss of usage time. Each one can last up to 12 hours on a four-hour charge and has a three year lifespan. Concern has been using these lights in Sierra Leone and Liberia and, most recently, as part of its response to the Philippines Typhoon Haiyan disaster of 2013.

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Charging Forward!

Concern uses mobile devices to survey farmers carrying out conservation farming methods in developing countries and the impact has been phenomenal. With natural sunlight powering up a solar charger in just four hours and connected to a Digital Data Gathering device to conduct surveys in remote areas with no electricity, it allows us to gather data faster and more efficiently than paper-based methods. The speed and accuracy of results allows us to produce and implement programmes to successfully address year-round farming issues in developing countries.

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Throwing Some Light on the Subject!

The small compact solar lights that Concern uses are made by Flexiways Solar Solutions at a very low unit cost but the benefits are priceless, as can be seen in this example here where children can read and do their homework at night-time in remote areas of the world with no electricity.

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Sun Roof!

This is an example of solar roof panels from Concern's work in Liberia. In this instance, we provided the panels to a farming resource centre in order to provide dependable fluorescent lighting so that students could study longer, and attendance numbers increased as a result. The centre has also turned into a nightly gathering point for the local community. Along similar lines, solar panels also provide power to a hospital in the district of Lofa, Liberia.

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Safety and Security

Solar power technology has been used to great effect by Concern in Haiti since the massive earthquake of 2010. Over 2,000 basic solar kits (comprising of a small solar panel, connections and charger) were supplied to camps for displaced and homeless people, while solar powered flashlights were also provided for the safety of women. After the installation of the solar lights, rates of gender-based violence in the camps fell significantly. Moreover, girls felt increasingly safe walking to school and attendance rates improved.

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Fishing for Compliments!

Small solar lights were distributed in large numbers by Concern to remote fishing community households in the Philippines after Typhoon Haiyan in November 2013. These hand-held lights could be charged quickly in direct sunlight and provided lighting to families in temporary shelters at night time. This ensured that children could read and family members could continue to work after the sun went down. As electric power was still down for months after the typhoon, these solar lights remained very popular and many households continue to use them.

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Let There be Light... and Water!

Gloria Kafuria, Concern Worldwide's water and sanitation engineer in Ngara, Tanzania, is seen here with a solar water system that she designed, with the solar panels charging up the water pump. The tank, which holds 25,000 litres, delivers safe drinking water to as many as 3,000 people a day.

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