## TURNING WASTE PLASTIC BOTTLES INTO SOLAR LIGHTS A LITER OF LIGHT MOVEMENT

In 2002 <u>Alfredo Moser</u>, a Brazilian mechanic found a functional solution to illuminate his house with an invention called *Bottled Lamp*. It is a lamp made of a transparent plastic water bottle (PET) with size of 2 litres. This is partially filled with some water and few drops of chlorine in order to avoid the water going bad. Once filled, the lamp is placed inside a hole on the roof.

This invention was born as adaptation strategy to frequent energy blackouts that Brazilian cities had experienced during that year, and it quickly attracted international attention for its simple and

innovative approach to light provision. The lamp voltage is approximately 40-60 watts according to the power of the sun. This technology can be used only during daytime, but it can contribute to energy and cost saving effects for those households that do not receive enough sunlight. Thus, it is powerful enough to light up a home but more than that, it is inexpensive and easy to make.

Thanks to the diffusion on the web and scholarly articles in specialised journals, in 2008 this invention has become part of a project run by the national energy Agency of Brasil (AMPLA), having the objective to reduce energy costs for household with low levels of income. In 2011 Illac Diaz under the MyShelter Foundation launched this technology in the Philippines. The Foundation applied this methodology with the active involvement of local populations and it installed 28,000 solar bottle bulbs in 20 cities and provinces around the Philippines, thus inspiring local initiatives around the world. MyShelter Foundation also established a training centre that conducts workshops with youth, business companies, and other groups who are interested in volunteering their time to build lights in their communities.

In 2011 with the partnership of the Massachusetts Institute of Technology (MIT), MyShelter Foundation launched the international campaign <u>A Liter of Light</u>, to expand the usage of this technology around the world. Over 200,000 bottle bulbs have been installed in communities of different countries since then. The movement, based in Philippines, is improving its impact at international level, involving volunteers, institutions actors and projects in Cambodia, Colombia, Guatemala, India, Indonesia, Vietnam, Uganda, Kenya, Singapore, Spain and Switzerland. The Movement goal is to install one million bottle lights around the world by 2015.

In 2012 the innovation won the prestigious prize <u>Curry Stone Design</u> rewarding social design pioneers.





To know more

Liter of Light website

Liter of Light Movement in Wikipedia

How to build a solar bottle bulb-Youtube

Article in BBC News Magazine

Illac Diaz projects

Artícle in TheGrandSignal

Curry Stone Design Video

Liter of Light Switzerland

Globo Reporter

Liter of Lights in Coca Cola Journey



