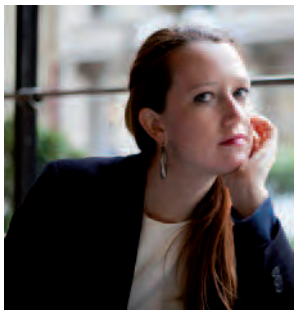

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EMERGENCY DESIGN

The word emergency evokes dramatic events such as earthquakes, floods, migrations, tsunamis, wars, as well as economic crises. Architecture has been studying the post-disaster housing model for years and seeks to provide temporary solutions to emergencies as well as develop new prospects for sustainable reconstruction projects. To solve the immediate housing problem in environmental and social emergencies, there need to be creative proposals that are flexible, affordable, modular, and easy to assemble. In recent years, design has developed research and tools with these same goals, to arrange objects, services and communication systems to provide solutions in catastrophic events, and to intervene in endemic crisis situations, such as the energy issue or lack of drinking water in many areas of the world. These on-the-ground solutions are helping displaced communities, especially those in developing countries, "build back better." Jukka Savolainen, Director of the Helsinki Design Museum, highlights the effectiveness of architects and designers working together to find creative solutions for post-disaster aid and emergency relief with accessibility, low cost and functionality in mind. It is the specific ability to blur the boundaries between architecture and design - he says - that is producing great solutions to address social or environmental disasters.

Among the numerous country specific and targeted post-disaster on-the-ground projects that have emerged in recent years, one stands out for its open source, global scope and grassroots enterprise business model: Liter of Light.

CREATING LIGHT

Liter of Light is a global open source movement with the aim to provide a sustainable and affordable long-term source of light to communities around the world who are hit by calamities, natural or social disasters. The project began in the middle of one of the strongest typhoons in the Philippines in 2006. After living in darkness for days, Illac Diaz, Founder of Liter of Light and MyShelter Foundation, says he was inspired to find a sustainable lighting solution that would brighten the streets and homes of communities in a time when supplies like candles and batteries dwindle. Solar power was the solution. Inspired by Alfredo Moser's daylight and the social business of LED nighttime upgrade, it takes one 1.5-liter plastic plastic soft-drink bottle filled with clean water and a little bleach suspended from a rooftop to light up a room with an equivalent 55-watt electric bulb. The upper part of the suspended plastic bottle catches natural sunlight and the water's refractive property does the magic, literally, creating light for up to 5 years.

Liter of Light is all about transferring skills to build solar lights rather than distributing a number of lamps. The zero-carbon-emitting solar bottle bulb uses

local, durable, readily available materials, is low in cost and is simply built with simple tools. "We don't want dependency on expensive imported materials and complex technology from big industries. This low-technology device has no patent and anybody could do it" says the Founder. "Open-sourcing skills through movements like ours" – he continues – "and using the crowdsourcing generosity of people helps us fight the plight of billions of people living in darkness. Just bringing solar lights into developing countries without teaching the skills to repair them and the know-how to build them is useless. Such projects are designed to fail because under such a business model, new solar lights need to be bought."

CREATING CHANGE, ONE VILLAGE AT A TIME

The project, which started in response to a major post-disaster need, quickly developed into an international network of volunteers based on the vision of a new economic model. Under the guidance of local technicians who teach how to assemble the components and independently develop the project, Liter of Light is creating local micro-economies that benefit local communities around the world. Using the Philippines as a base, Liter of Light is currently in 18 countries around the world with local network facilities developing the project and would like to expand to regions in the Pacific islands, Africa, and South America. Liter of Light is not supported by public governmental funds, but by the United Nations and by private companies.

Liter of Light strongly relies on volunteers across the globe to spread the movement and utilizes the Internet and social media platforms to provide demonstrations of how to make the light bottle yourself. As LED and small solar panels become more available locally, lights can be built within a day of finding their tutorial online, even in impoverished communities facing dire poverty. The Internet has empowered the non-profit community to reach out more than ever before to broader populations. The challenge is how to use the Internet for more than just transactional purposes, for just spreading awareness or for getting people to 'like.'

"The goal" - Diaz emphasizes - "is to go beyond just giving a man a fish or even teaching a man to fish, but changing the entire game by transferring green technology and getting solutions online."

The goal for 2015? One million solar bottles installed by the end of the year to bring light to refugee camps, villages without electricity or wherever light is needed. The UNESCO (United Nations Educational, Scientific and Cultural Organization) has announced that 2015 is the 'International Year of Light', year in which the project will be developed with the support of various design universities in various countries. Starting from this open source and its elements, students are invited to participate in the project to implement the existing technology, create new applications, designing new components.

http://aliteroflight.org