



green empowerment

Village Solutions for Global Change



November 2011

A note from Executive Director, Anna Garwood

Dear Friends,

The strength of our partnerships with local non-profits around the world is the essence of our success. To us, “partnership” doesn’t mean contracting locals to carry out plans we develop state-side. But rather, it means catalyzing the efforts of local leaders and working together to find solutions. Recently, when a community in the Philippines was harassed by their military during a project installation, we sent letters of support, drawing attention to the human rights abuses. The harassment stopped, and the community completed their own micro-hydro system— *receiving electricity for the first time!*

Now, as the interest in renewable energy grows, **Green Empowerment is recognized as one of the forerunners.** Recently, we were awarded a subgrant through the United States Agency for International Development (USAID) program Vocational Training and Education in Clean Energy (VOCTEC) to develop curriculum on micro-hydropower. Each year, the team will train local decision makers and technicians in three countries.

When I started working at Green Empowerment nine years ago, I had to explain what renewable energy and sustainable development were to many people. Today, these ideas are mainstream and we are appropriately positioned to leverage our expertise and grassroots partnerships to **improve the lives of thousands of people each year.** With your donations, we continue to grow and send a caring message to people who lack basic necessities.

Thank you for your support,

Anna Garwood, Executive Director

How We Work

Our success rests on a unique model combining the distinct strengths of three interdependent partners —Green Empowerment, an in-country Non-Governmental Organization (NGO), and local community leaders.

1 A rural community defines what it needs to improve quality of life such as clean water, electricity, or improved cooking methods.

2 The community works with our local NGO partner to further define the project, select the village technician to operate the system, and set a tariff per household to pay for service and maintenance.

3 We work with our NGO partner to refine the project design, provide technical and program assistance, connect the partner to people doing similar work in other countries, involve volunteers, and seek funding to complete the project.

This threefold relationship has a powerful impact on a community, providing sustainable access to energy and water.

Why should I care? Green Empowerment's mission aligns with the United Nations Millennium Goal #7 to Ensure Environmental Sustainability. **UN Goal #7 aims to:** Cut in half, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. Through our work, we join the rest of the world to achieve the UN Millennium Goals and to reverse the grinding poverty, hunger and disease affecting billions of people.

The Game-Changing Ram Pump Makes Water Flow Uphill

Alternative Indigenous Foundation Inc. (AIDFI), Negros Island, Philippines

Our partner AIDFI in the Philippines won international attention for their water pump starting in 2010 with the BBC World Challenge, followed in 2011 by the Ramon Magsaysay Award, considered the Nobel Prize of Asia. With no fuel input, and only two moving parts, the AIDFI ram pump is a game-changer for good, with capabilities to deliver water to villages

3 kilometers away from the source, up to elevations more than 60 meters high! To date, AIDFI boasts over 180 installations in 10 countries, serving 50,000 people living in remote communities. We connected AIDFI with a partner in Colombia, Aprotec, which sparked an exchange of cultures and appropriate technologies. The Colombian team spent weeks in the Philippines, and vice versa. Now, Green Empowerment is focused on scaling up this work to bring clean water to thousands more people and spread the ram pump to NGOs in other countries.



Clean water to bathe improves health and hygiene, and increased school attendance. Sitio Bagacay, Inapoy, Kabankalan City, Negros Occidental, Philippines.

Photo: AIDFI.

Videos of renewable energy technologies in action at: www.greenempowerment.org.

Rethinking Cooking: Clean Indoor Air in Nicaragua

Every morning across rural Nicaragua women rise at 4 or 5 o'clock in the morning to prepare tortillas, coffee and breakfast for their families. Women light their traditional wood stoves and the kitchens become consumed by thick, burning smoke. 93% of rural Nicaraguan households consume firewood for cooking. According to the World Health Organization, the health impact from exposure to indoor air pollution from traditional cooking stoves and open fires causes 1.9 million premature deaths annually.

In 2010, Green Empowerment and local-partner AsoFénix began to work with rural Nicaraguan families in the village of El Roblar (San Jose de



No smoke in Reyna M.'s windowless kitchen thanks to an improved cookstove.

Photo: Caitlyn Peake, Green Empowerment Reuss Fellow, El Roblar, Nicaragua, 2011.

Los Remates, Boaco) to install the award-winning Justa Stove. The Justa Stove model utilizes a 'Rocket' elbow for increased fuel combustion, a metal griddle to provide a cooking surface for traditional tortillas and a chimney to remove smoke.

The Justa Stove reduces firewood consumption by 50% and smoke emissions by 80-98%.

Installing improved cookstoves reduces the demand for firewood (slowing deforestation), improves indoor and outdoor air quality, and saves precious time collecting wood, usually done by women and children. Consequently, many children can concentrate on their studies again. Plus, cookstove smoke contributes to a range of chronic illnesses and acute health impacts such as early childhood pneumonia, lung cancer, cardiovascular disease, and low birth weight. Improved cookstoves also reduce harmful CO₂, methane and black carbon emissions to address the threat of global warming. Improved cooking is simply good for families, forests and the planet.

Updates and photos on our blog, www.greenempowerment.org.



A wind turbine and solar panel powers each home in Campo Alegre, Peru.

Photo: Intern Dave Lindoo, February 2011.

WindWorks: Improving Wind Turbines Through Action-Learning

WindWorks is a program to build capacities of our partners, Soluciones Prácticas in Peru and AsoFénix in Nicaragua, in the field of small-scale wind for rural electrification. Since the best way to learn is to try new things, the program starts by installing two wind turbines: one to pump water and provide light in Nicaragua, and another to power an off-grid orphanage on the coast of Peru. Then, in early December, Green Empowerment is co-hosting a symposium on small wind turbines in Peru to bring together NGOs and

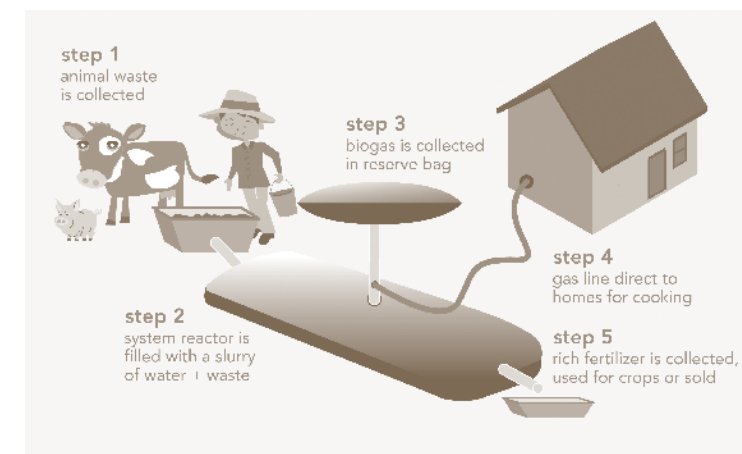
researchers from Latin America, the U.S., Germany and Senegal. The week-long symposium begins in Lima, to reach decision makers in the Peruvian government, and then heads to the highlands to visit communities that are powered by locally-made wind turbines. The WindWorks program will immediately benefit the children at the orphanage in Peru and the rural community of Nicaragua, but it will have greater impact by opening up new horizons for the use of small wind for rural development. WindWorks is a Regional Partnership with the Wuppertal Institute for Climate, Environment and Energy.

Updates and photos on our blog, www.greenempowerment.org.

Turning Waste into a Valuable Clean Energy Source

RedBioLAC: Biodigester Network of Latin America and the Caribbean

Biodigesters convert animal manure into methane for clean cooking and organic fertilizer. The use of biodigesters limits animal waste run-off into rivers, eliminates the use of fossil fuels, improves agricultural production and decreases deforestation by replacing wood as an energy source for cooking. As the founding member and Secretariat for RedBioLAC, Green Empowerment was awarded a 3-year grant from the U.S. Environmental Protection Agency's Global Methane Initiative for yearly symposiums



Biodigesters eliminate methane emissions from a leading source of environmental pollution: animal waste. When ignited, methane gas generates heat that can be used for cooking. Illustration: designmeister.

and creation of an online information clearinghouse. RedBioLAC brings people already building biodigesters together to assist those just getting started, plus information sharing to advance the existing designs and implementation.

Fifty-three people from 14 countries attended the latest RedBioLAC conference Green Empowerment organized in Puebla, Mexico in May.

For more information: www.redbiolac.org.

A Legacy 25 Years in the Making

On April 27, 1987, Portland civil engineer Ben Linder was assassinated in Nicaragua by U.S. backed Contras. His volunteer work to bring renewable energy to rural Nicaraguans has been continuing ever since. Next year is the 25th commemoration of that tragic loss and reminder that it takes a pioneer and innovator like Ben to introduce change to the world.

Since Green Empowerment's inception 14 years ago, we've partnered with the Association of Rural Development Workers-Ben Linder (ATDER-BL), the Nicaraguan NGO formed by Ben Linder's colleagues. The U.S. born director of ATDER-BL, Rebecca Leaf, has been living at the site of the ATDER-BL office and machine shop since the 1980s.

Today over 17,000 people have electricity thanks to ATDER-BL's efforts.

It is the long term dedication of our partners, interns, and volunteers that inspires us, bringing new meaning to the term *sustainability*.

Holiday Roast Coffee Supports Green Empowerment!

Water is a key ingredient when making a good cup of coffee. For the developing communities we serve, water is now close by, delivered clean, and sustainably—ideals we share with Portland Roasting.

That's why \$1 from the sale of each 12 oz. bag of their delicious Holiday Roast will be donated to Green Empowerment (look for the special label, shown here).

Further details and where to purchase Portland Roasting's Holiday blend coffee is on our blog, www.greenempowerment.org.

Thank you!



Green Empowerment is a U.S. 501(c) (3) nonprofit organization founded in 1997.

Our Mission: Green Empowerment provides villages in the developing world access to clean water, electricity through renewable energy, and sustainable solutions.

Green Empowerment depends on generous individuals like you to make our life-changing work a reality.

How to Give:
mail, call, or donate
via our secure website:

140 SW Yamhill Street, Portland, OR 97204
phone: 503-284-5774
www.greenempowerment.org

Contact us:
email: info@greenempowerment.org

Please follow us on:



Green Empowerment is a non-profit partner with 1% for the Planet, www.onepercentfortheplanet.org

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Thank you to designmeister, for donating time and talent for this newsletter, www.designmeister.com

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