# ANNUAL REPORT

**YEAR ENDING DECEMBER 2013** 





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# **FEEDBACK**

Please share your thoughts on our report via info@empowergeneration.org



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We empower women to power communities with clean energy

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# **A MESSAGE** from our founders

Welcome to our first Annual Report! The whole Empower Generation team is proud to share our story and achievements with you, and we hope this inspires your support for years to come.

Since Empower Generation's founding in 2011 and pilot entrepreneur program in 2012, in 2013 we saw more change, as people take the energy poverty challenge into their own hands, rather than waiting for centrally driven solutions. Our expanded work created new women-led businesses, financed opportunities for customers, and increased public awareness of the advantages of clean energy.

There were great times, not so great times, and not many easy times. Our development as social entrepreneurs exploring new frontiers in energy and creating new chances for women in Nepal was, and will continue to be, an unchartered, transformative challenge for everyone.

However, it's a challenge well worth the outcomes. Building on our pilot project we delivered a viable product to further test the market and gained as much validated customer learning as possible. While a temporary inventory issue impacted sales targets, we maintained a flexible approach and applied new knowledge and competitive insights, with overall positive results.

## 2013 HIGHLIGHTS

- We trained, financed, and supported two new entrepreneurs, bringing our total to three.
- Total clean energy product sales increased by 157%, compared to 2012.
- Our new enterprises provided cleaner, safer homes for 6,311 people in Nepal, saving them nearly \$12,000 USD in energy costs.
- 206.8 tons of CO2 emissions were displaced through the adoption of clean energy.
- 86% of customers reported their immediate environment was safer from fire hazards, toxic-fume inhalation, and other pollutants.
- Customers with children reported improved application towards homework, school and grades since their • children had, on average, an extra four hours of light per night.

### LOOKING AHEAD

In 2014 we aim to grow our distribution network to a total of seven clean energy enterprises, with more than 50 solar sales agents, technicians and administrators servicing four different regions of Nepal. We've set an aggressive distribution network sales target of 13,000 products to bring clean, safe light and phone charging capabilities to 66,000 people.

We will continue to support our entrepreneurs as they scale their businesses. Additionally, we will work to improve financing options for the poorest consumers to overcome upfront costs of switching from dirty, unsafe kerosene to solar.

We will also carefully navigate obstacles such as regulatory barriers to market entry for women and foreign investment in Nepal. Balancing internal resourcing, and leveraging technology and targeted education, we aim to continuously improve our business and customer service environments.

There's a lot happening, and we are incredibly proud of Empower Generation's progress as a new organization. Most importantly, we realize it is impossible to achieve transformative innovation alone. All of us at Empower Generation are deeply grateful to everyone who contributed to empowering women to power their communities with clean energy.

We look forward to working with the great people we know, and great people we're yet to meet, to light an exciting future for Nepal and Empower Generation.

ANYA CHERNEFF AND BENNETT COHEN **CO-FOUNDERS** 

Pursuing our social mission by investing in for-profit ventures in Nepal will remain key

# **ABOUT** us

## **OUR VISION**

We envision a world where women living at the base of the economic pyramid are empowered to lead their communities out of energy poverty, where human dignity for all and environmental sustainability are universal values.

### OUR MISSION

We empower women to power communities with clean energy.

# WHY WOMEN? WHY CLEAN ENERGY? WHY NEPAL?

In Nepal, women are restricted in access to education and equitable options for work due to religious and cultural beliefs. Girls can be married as young as 15 and are often sold into prostitution. Women cannot own property, yet are responsible for managing their household's energy needs. This can mean that they spend up to eight hours each day collecting firewood and walk miles each week to buy kerosene.

As one of the poorest countries in the world, 60% of Nepal's population may never be connected to the electric grid and the rest suffer daily blackouts lasting up to 16 hours.

Additionally, the combination of poverty, discrimination and environmental degradation can lead people to take incredible risks for employment, often ending in human trafficking, and the destruction of natural and human resources.

Traditional energy (e.g. electricity and kerosene) continues to be unaffordable and inefficient. Kerosene costs the world's poor close to \$37 billion, provides poor quality light and contributes to more than a million women and children's deaths worldwide from respiratory illness caused by breathing in kerosene smoke.

Solar power is cost competitive when compared to kerosene or Nepal's unreliable electric grid. In Nepal, people can spend up to 10% of their income just on lighting their homes with kerosene, candles and flashlights. Just one solar lamp can provide up to four hours of safe, bright light to a family each night.

Payback against current energy spending can be as little as three months and families can save more than \$100 in energy expenses over an average five-year lifespan of their lamp. These savings are significant when you consider 70% of Nepal's rural population live below the poverty line and the per capita income is just \$350. On top of these savings, each lamp creates around 7,000 hours of extra productivity for people to work or study after dark.

# Pabitra Aryal, Santosh Bista and Sita Adhikari deliver an awareness program

## HOW WE OPERATE

Founded in 2011, Empower Generation is a Section 501(c)(3) social business in the United States actively seeking donations, grants and program-related investments. We currently operate as a non-governmental organization with investments in for-profit solar companies in Nepal.

As a social enterprise we strive to be financially sustainable. We receive income from investments in women-led energy businesses and via Clean Energy Funds at local savings and credit cooperatives.

"Developing countries have the potential to leapfrog past massive power plants and miles of high-voltage transmission lines to distributed generation and micro-grids, in the same way that many have famously forgone fixed landlines in favor of cellular phones and towers." Bennett Cohen

# **OUR TRIPLE BOTTOM LINE**

### PEOPLE

- Seed and support women-led enterprise serving the poor.
- vulnerable and can increase their social capital.

### PLANET

- Lead the global clean energy revolution.
- Reduce deforestation and carbon dioxide emissions. Share knowledge about the benefits of clean energy adoption in rural areas.

### PROFIT

- Establish viable businesses for a clean energy distribution network and services that stimulate local economies.
- Earn annual returns from loans to energy entrepreneurs, Clean Energy Funds, and energy services provided to customers.
- Earn profit in exchange for consultancy services to clean-tech suppliers wishing to enter the Nepal market.





## THE EVOLUTION OF OUR BUSINESS MODEL IN 2013

Empower Generation takes a market-based approach to international development by building a robust distribution network for clean energy, known as the EmpowerGrid. Our Nepal EmpowerGrid is composed of independently owned and operated energy service companies, all led by women, at all points in the supply chain, including a wholesale solar importer/distributor and retail distributers.

- 1. Female energy entrepreneurs and their sales agents in Nepal.
- 3. CleanTech Suppliers who wanted to get their products into distribution in Nepal's market.

In 2013 we transitioned from supporting clean energy companies (servicing rural retail customers only), to supporting clean energy retailers as well as Kalpavriksha Greater Goods - the sole national importer and distributor of d.light, the largest solar lamp company in the world.

As our pilot enterprise, Kalpavriksha Greater Goods did not expect to become a distributor of d.Light solar lamps for the entire country, in such a short period of time. Empower Generation did not anticipate needing to support the supply chain in this manner, but we are committed to building a sustainable market for clean energy in Nepal and empowering women to fill gaps as they appear to us.



# **CREATING** businesses

This year we created new clean energy businesses through a series of steps:

# STEP ONE: IDENTIFY AND TRAIN

- Identified rural areas with major energy needs.
- Solicited applications from women at community-based organizations. •
- Approved applicants attended a Capacity Building Workshop where Empower Generation provided training and • mentoring in finance, accounting, marketing, sales, clean energy, and business plan development.
- Applicants wrote their own business plan, which Empower Generation tested for viability in their local community.

# Empower Generation provided a lowloan to selected

- Approved business plans were progressed and we supported entrepreneurs to register as a small business, open a bank account, and design their brand.
- Entrepreneurs were provided with technical repair training on products carried in the EmpowerGrid and in-depth training on maintaining proper accounting so we could monitor sales, and monthly profit and loss.

related costs such as a motorbike for transport, salary, ledger, stamp, and registration fees. Entrepreneurs were expected to make quarterly interest payments for the first two years of the loan, then principal and interest payments for the remaining three years of the loan term.

# **STEP THREE: SUPPORT**

- adopting clean energy.
- Products were ensured expedient importation and transportation to entrepreneurs to enable immediate sales.
- •

"For the average rural energy user, solar power is new here. Our Clean Energy Awareness Programs provided a great platform for entrepreneurs to explain the advantages of buying a a solar light." Sita Adhikari

# **STEP TWO: START UP**

- New businesses were established with technical support for operations, including providing a computer and supply chain management support.
- The two new businesses in 2013 were financed with a start-up loan of up to \$5,000 for early inventory orders and

• Empower Generation facilitated customer financing of clean energy products, through our Clean Energy Funds. We conducted Clean Energy Awareness Programs to increase target community's understanding of the benefits of

The supply chain was managed, including returning faulty products, provision of technical and monitoring support for the business, and improving communication between entrepreneurs to share knowledge and lessons learned.

# **IMPACT** and performance

# TRIPLE BOTTOM LINE IMPACT

	Actual (2013)	Goal (2013)	Actual (2012)	Goal (2012)*
Total women entrepreneurs supported	3	3	1	1
Total jobs created (full time and part time)	30	12	7	4
Clean energy units sold**	1,288	1,570	510	502
Productive hours for work and study (annual)	3,290,840	4,000,000	1,282,610	1,300,000
CO <sub>2</sub> displaced (tons annual)***	206.08	250	80.32	80
Reduced household energy expenses (annual, USD) ****	\$11,720	\$14,300	\$4,568	\$4,500
People with cleaner, safer homes (annual)	6,311	7,700	2,459	2,500

\* One pilot entrepreneur program existed in 2012.

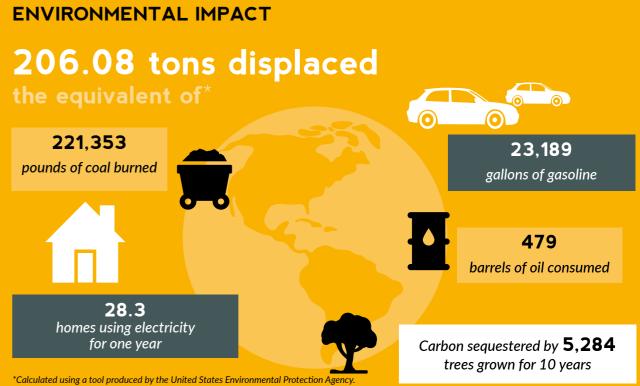
\*\* Includes units sold to customers and sales by Kalpavriksha Greater Goods within the distribution network.

- \*\*\* Based on United Nations Framework Convention on Climate Change AMS-III.AR.
- \*\*\*\* Based on assumption that each solar lamp replaces one kerosene lamp.

In early 2013 our three retail entrepreneurs sold all stock of d.Light solar lamps available in Nepal at the time. This outcome affirmed our model where rural women, trained as energy entrepreneurs created energy access by selling solar lamps at market price, through a network of village sales agents. However, it also created an issue for our entrepreneurs, who struggled to continue to build customer demand with no high quality products available to sell.



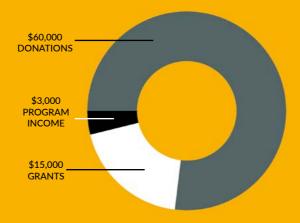
The incredible sales effort by our entrepreneurs early in the year created an inventory gap in Nepal lasting six months. During that time, entrepreneurs focused on selling secondary clean energy products such as mobile phone chargers and local solar lamps. While the inventory gap caused our network to miss our annual goals, it was a valuable learning experience for everyone involved, and led to the vertical scale our distribution network reached when Kalpavriksha Greater Goods became wholesale importer for d.Light in Nepal.



# FINANCIAL PERFORMANCE

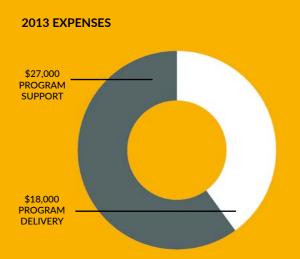
The Form 990 outlines financial details for 2013 including income received and sources, expense breakdown, net

#### **2013 INCOME**



We are grateful to all our individual donors who





As a start up social enterprise we're learning fast and

# **NEPAL** performance

Less than two years after piloting our model with Kalpavriksha Greater Goods, we took our expertise and lessons learned to scale Empower Generation's business model. In 2013, after hosting a capacity building workshop in Kathmandu where four women were introduced to the concept of social enterprise, how to run a small business and about solar lamps, and solar mobile chargers, Sita Adhikari selected two women to join Empower Generation's network of clean energy entrepreneurs.

Entrepreneurs were supported (refer to page 9) as they established two new clean energy enterprises serving customers in the energy-poor districts of Bardiya in the West and Siraha in the East.

# CUSTOMER FEEDBACK

We interviewed customers who bought solar lights and mobile chargers in 2013. The insights will inform future sales techniques, marketing, and engagement with potential customers. Highlights from the feedback included:

#### 100% 78% of families of customers feel solar lights are an with children improvement over candles, reported an extra 4 hours kerosene and emergency of light per night was lights. leading to better grades and application in school. 100% 86% of customers of customers households reported reported their immediate savings on their lighting environment was safer expenditure after from fire hazards, toxic-

Of note in the research, less than 1% of local customers considered a positive impact on their environment as a main reason to switch to solar. In liaison with our entrepreneurs we will continue to develop our awareness programs, as part of our sales strategy, to inform people of the holistic benefits of solar including health, cost savings, additional hours to study and work after dark, and the environment.

purchasing a solar light.

fume inhalation, and other

pollutants.

# **KALPAVRIKSHA GREATER GOODS**

Kalpavriksha Greater Goods (KGG) was founded in Nepal's Chitwan District in 2012 as Empower Generation's pilot project. The pilot demonstrated great potential of clean energy technology markets in Nepal. The business sold solar lights (directly or through sales agents) in Chitwan and provided access to the international tourist market for women to sell locally produced goods.

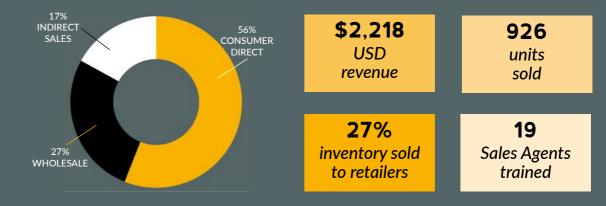
In 2013, KGG became a sub-distributor of d.Light solar lamps for Empower Generation's distribution network, and then became the sole importer and national distributor selling wholesale to two other solar retailers.

#### PILOT ENTREPRENEUR

Sita Adhikari, the founder of KGG, has been a dynamic community leader in East Chitwan for more than 18 years. During this time Sita, together with her supporting husband, maintained her passion for solving her community's energy problems and improving the quality of life for local women.

We have provided business, sales and technical training, capital investments, brand design work, mentoring, monitoring, and all the support Sita needs to manage a scalable business.

# KGG ACHIEVEMENTS BY THE NUMBERS



KGG sales in 2013 (graph above) were wholesale (27%) to Tri Urjah and Grameen Urjah predominantly, with consumer indirect sales (17%) via Sales Agents.



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# SITA ADHIKARI Management and a postgraduate Degree in Economics

# **TRI URJAH**

In March 2013 Pabitra Aryal established the business Tri Urjah to improve living standards of women and their families in the Bardiya District. As a business leader Pabitra aims to have a long social impact in her community and she says, "I'm also interested in contributing financially to my household and I want to give good education to my daughters and be their role model."



Tri Urjah means *tri power* in Nepal, a business name inspired by Pabitra's three daughters (whose names all start with the letters 'Tri'). Pabitra's family, including her supportive husband used to survive on traditional subsistence farming.

#### PERFORMANCE

Tri Urjah was off to a great start, selling 66 products per month. When the inventory shortage occurred in May, Pabitra and her Sales Agents began to sell a line of solar-powered mobile phone chargers and improved cook stoves. This maintained demand from customers, and Tri Urjah's regular updates to customers regarding inventory deliveries were part of the excellent customer service.

All sales were made via door-to-door interactions and networking through social circles. The Bardiya District has enough market potential to keep Tri Urjah busy for years to come while increasing the remote community's standard of living, however high transportation costs are an ongoing challenge for the business.



### PABITRA ARYAL Pabitra has a Nepal tenth grade education and is a strong and respected legal advocate for landless people.

#### EMPOWER GENERATION'S SUPPORT

We supported Pabitra starting her business by evaluating the business plan and helping formulate a realistic budget to achieve her objectives to sell clean energy products, raise awareness about the benefits, and hire and train a workforce to achieve sales goals. We also assisted Pabitra with the purchase of a motorbike to help overcome transportation costs and customer accessibility. We will continue to support Tri Urjah to maximise Pabitra's promising start.

# TRI URJAH ACHIEVEMENTS BY THE NUMBERS



## **GRAMEEN URJAH**

In March 2013 Lalita Chaudhary established the business Grameen Urjah (meaning *community power* in Nepal) to distribute renewable energy systems through a team of women sales agents in the marginalized and off-grid communities in the Siraha District.

Lalita is dedicated to providing education for her daughter. Initially the business was run in partnership with Rajendra Chaudhary, (no relation) a local politician and community organizer. Lalita now works full-time as the sole proprietor of Grameen Urjah.

In her business plan Lalita mentioned she wants to be a respected businesswoman and change agent in her community, lighting a new path for her daughter and all the Tharu women of Sihara. With her first-year performance she made an impressive start to these goals.

### PERFORMANCE

Grameen Urjah ensured energy security and smoke-free homes by selling several types of solar lamps, mobile chargers, and even a few improved cook stoves.

The business' storefront location gives access to the region's main thoroughfare, a well-traveled highway, and festival grounds that host nearly a dozen events visited by 10 million people each year which holds great potential.

### EMPOWER GENERATION'S SUPPORT

We supported Lalita in similar ways to Pabitra, through evaluating a business plan and forming robust budgets to achieve sales goals. We also supported Lalita with marketing and awareness materials for her business including branding and brochures. In the future Empower Generation will continue to support Grameen Urjah through supply chain management, customer financing, and marketing to capitalise on potential customers attending festivals adjacent to the storefront.

# **GRAMEEN URJAH ACHIEVEMENTS BY THE NUMBERS**

\$604	252
USD	units
revenue	sold

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LALITA CHAUDHARY Lalita has a Bachelor Degree in Education and is the founding librarian of the Sirjana Community Library.

100%6direct<br/>salesSales Agents<br/>trained

# **KEY** partnerships

#### Digital Concepts 2.0 (US distributor of WakaWaka solar products)

Develops, manufactures, and markets high-tech low-cost solar powered lamps and chargers indispensible to the developing world and in developed markets.

#### d.light

An international for-profit social enterprise that provides access to reliable power by designing, manufacturing, and distributing solar light and power products throughout the developing world with the goal of empowering at least 100 million people by 2020.

#### fosera

Produces high-quality LEDs, solar panels, lamps, and batteries lasting up to 15 years with generous warranties. The company's products can also charge a mobile phone and radio.

#### Hari Kumar Silwal

Nepali teacher with vast experience and education including law, commerce, sociology and accounting.

#### **READ Global**

Establishes locally owned and operated community libraries and resource centers in rural South Asia, where a majority of women are illiterate and families live below the poverty line. Also host training programs in education, economic empowerment, technology, and women's empowerment.

# VOLUNTEERS

A special thanks to all our volunteers (listed below) and especially Spencer Goodfriend who conducted Empower Generation's first Monitoring and Evaluation Report, which became a key input to this Annual Report.

We are always looking for motivated and passionate people to join our team through fellowships, internships, and volunteering. Visit www.empowergeneration.org/about-us or send an enquiry via info@empowergeneration.org



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