

Solar Powered Lighting: A Solution to an Important Problem

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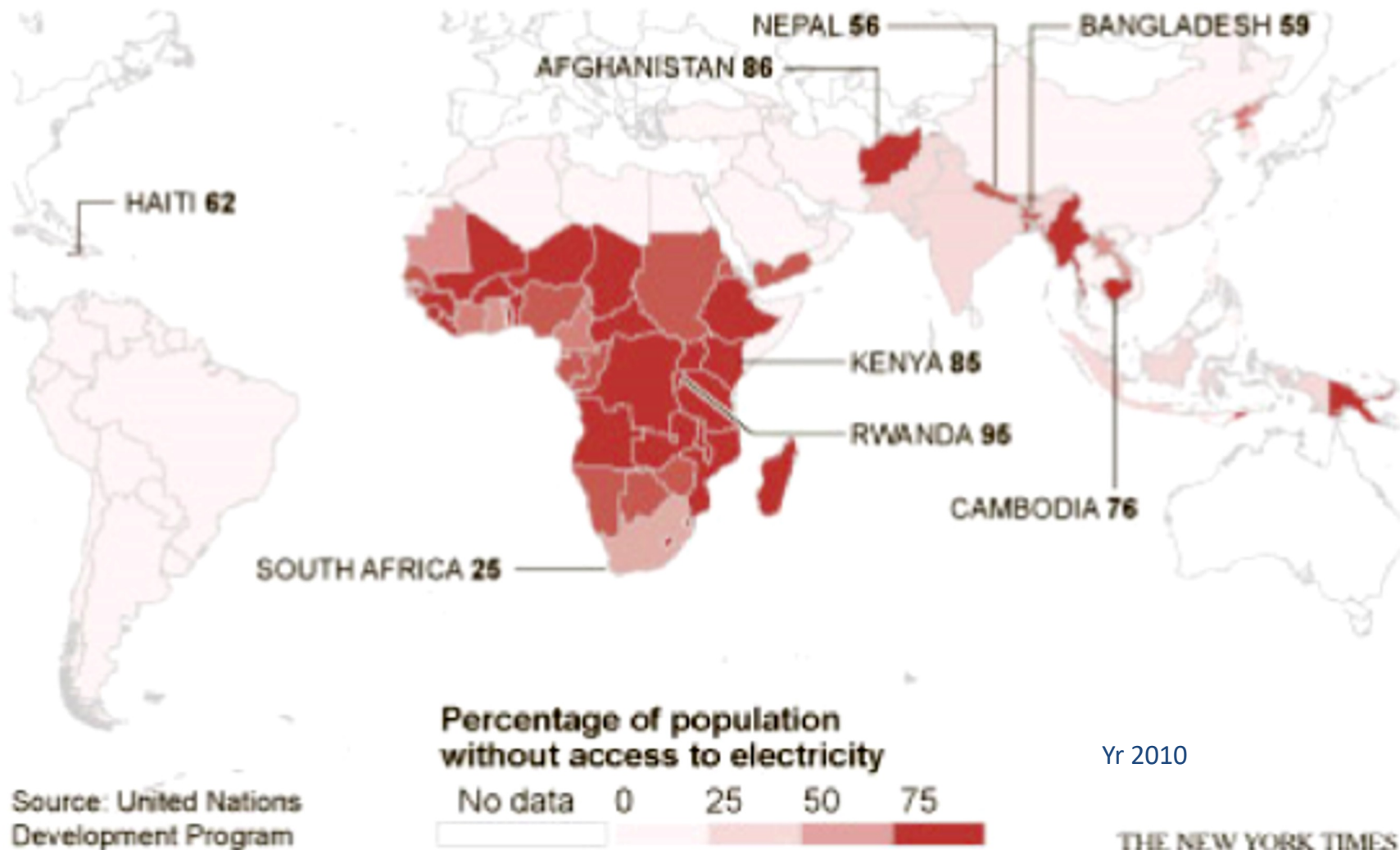
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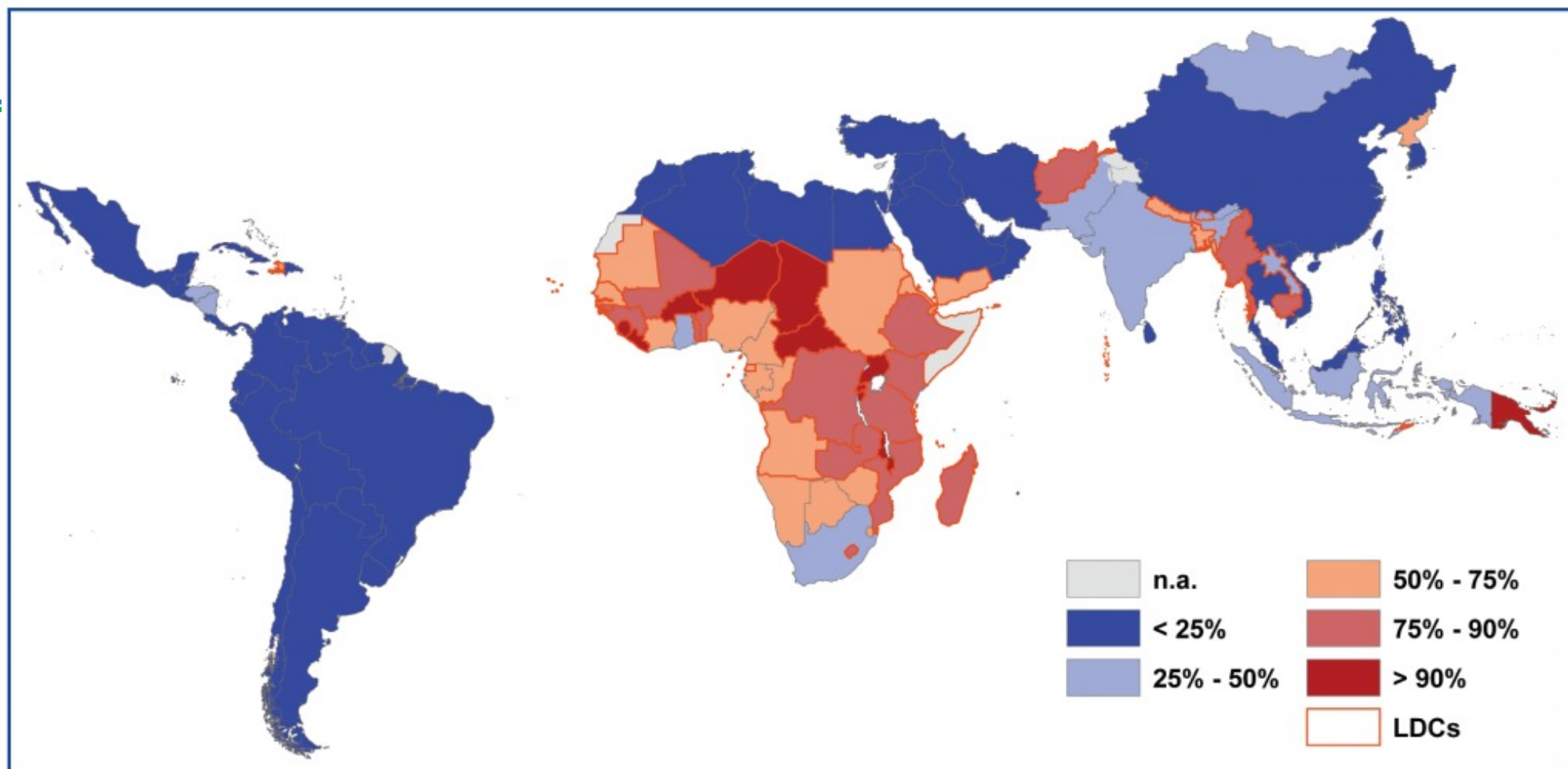
Living Without Electricity

1.4 Billion People

One in five people on the planet live without electricity, generally because they are not connected to a grid. Poverty and politics both can influence the way countries shape their grid infrastructure.



Share of people without electricity access for developing countries, 2008



Source: UN
Development
Programme

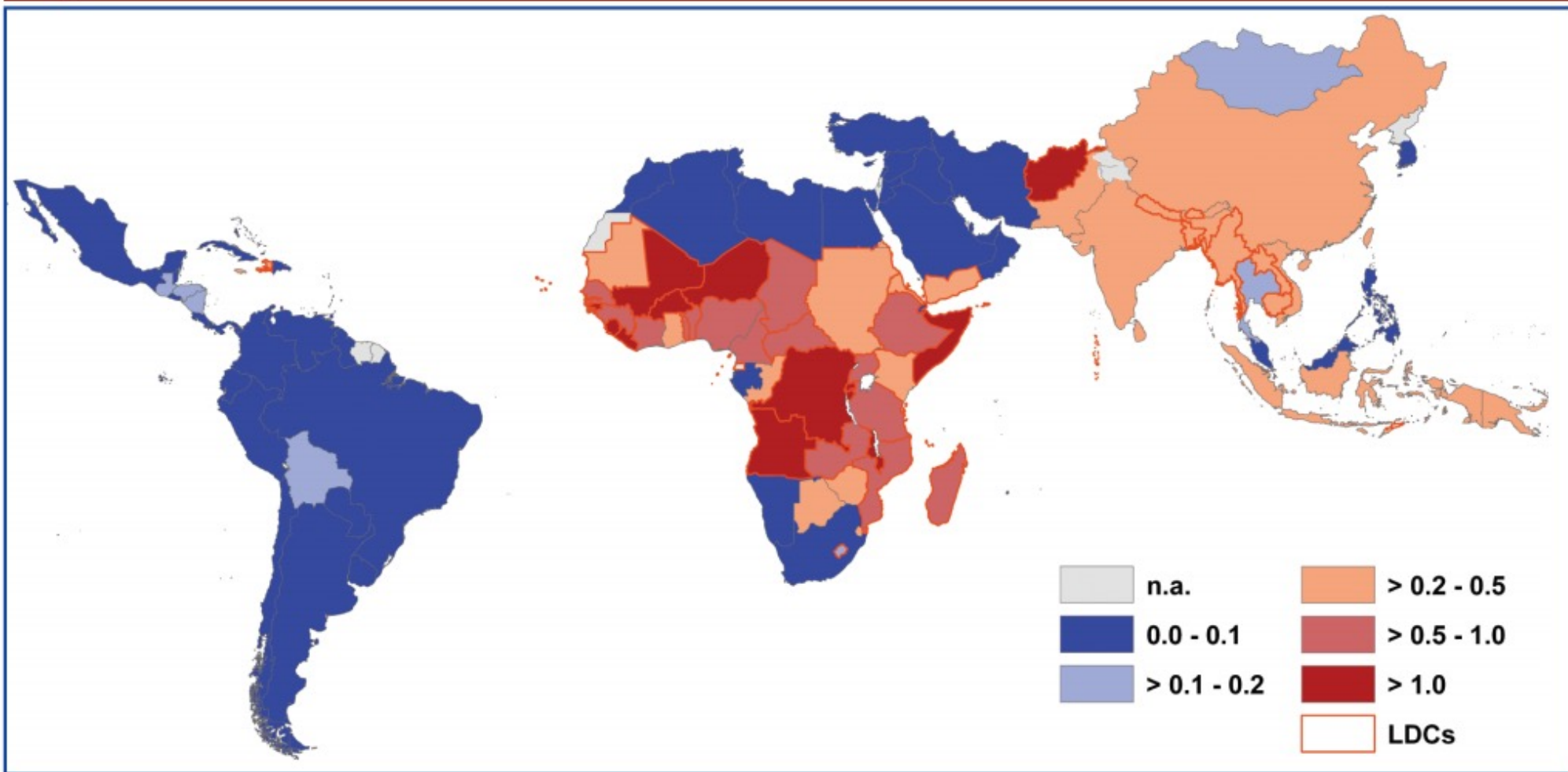
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Access to electricity in the world, 2008

	Total population (in millions)	Electrification rates (%)	Total population without electricity (in millions)
World	6,692	78.2	1,456
OECD and transition economies	1,507	99.8	3
Developing countries	5,185	72	1,453

Number of deaths per 1000 capita per year, attributable to indoor air pollution from solid fuel use, 2004



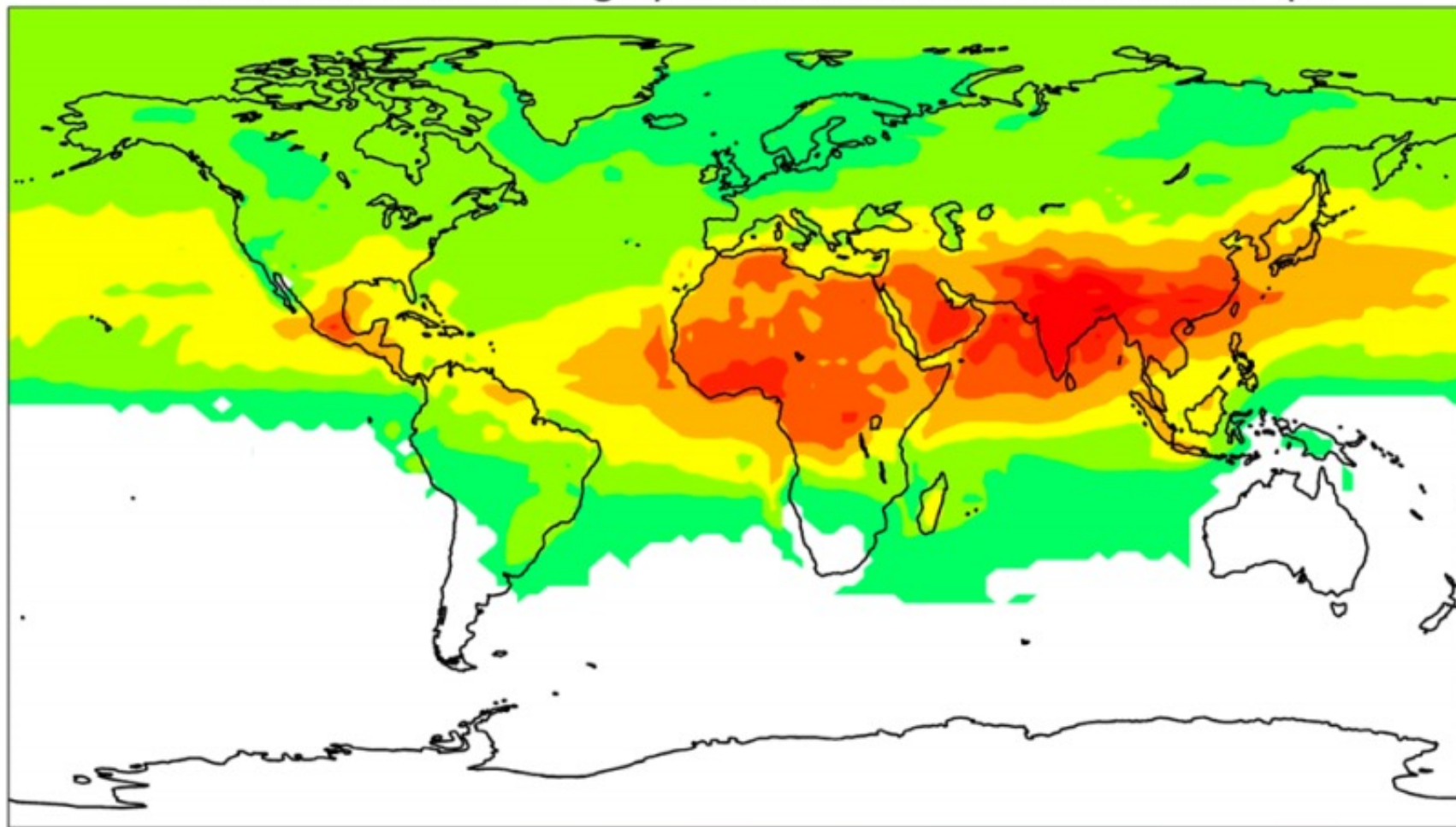
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Direct radiative forcing by BC emissions from kerosene lamps



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The Problem

- Half of the world's population earns perhaps less than \$2 a day. Yet many spend up to \$200 a year on fuel to keep their homes lit at night with polluting kerosene-based lamps.
- A third of the world's population relies on kerosene, candles or firewood for lighting
- Burning kerosene indoors has been proven to be detrimental to peoples' health causing respiratory disease such as pneumonia and tuberculosis. Children, pregnant women and elderly are most at risk.
- Fire danger – Burns and house fires. In India 2.5 million people (350,000 of them children) suffer severe burns each year from house fires, due to overturned kerosene lamps.



Father & Son with kerosene lamp



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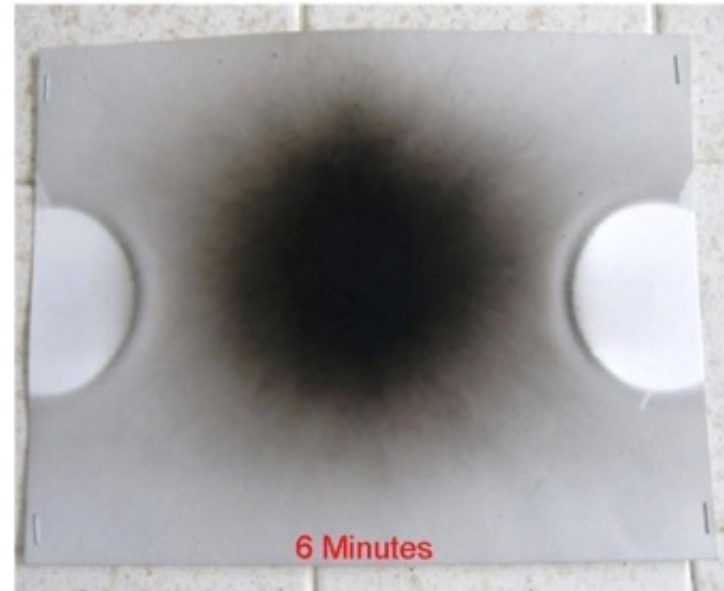


Kerosene: Health and Carbon Problem

Converting 1 million people to LEDs saves 5000 metric tons of CO₂/year

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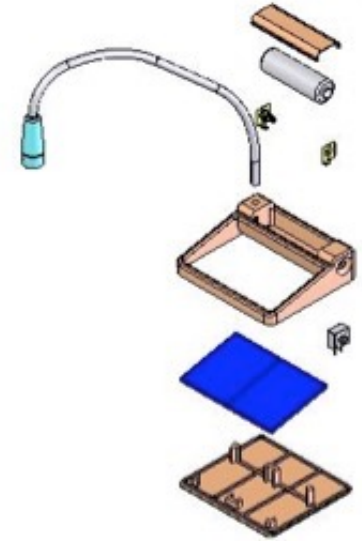
Lets help save the planet!!!



Multi- Purpose Solar Powered Light

Design Features:

- High efficiency solar cell
- High efficiency LED
- One rechargeable battery
- Low cost (SAVING Kerosene cost)
- Compact and lightweight
- High performance
- Long life
- Water resistant



Our Mission

unite to light



Our Vision: Clean, affordable light & energy are crucial to global health, education & prosperity.



Our Mission: Provide low cost solar lighting & energy to people living without electricity.

Unite to Light

200,608

Lights Distributed

14.9 MMT

CO2e Emissions Reduced

80

Countries

\$28.9 million

Reduced Energy Costs



Who We Are

unite to light



- Nonprofit organization 501(c)3
- Founded: 2010
- As of 2020:
 - 140,000 solar Luke Lights and Chandler Chargers distributed
 - 78 different countries
- **Recent news:** 300 Luke Lights and 225 Chandler Chargers donated to those affected by power outages in Texas.



Our Focus Areas

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	EDUCATION	HOMELESSNESS	HEALTH	DISASTER RESPONSE
DETAILS	Students can study after sundown, increasing literacy, economic advancement, and opportunity.	People experiencing homelessness can call for services, be reached in an emergency, and communicate with their families.	Birth can be deadly without trained professionals and without the right equipment.	Solar light and power are vital in disaster and emergency situations; to hospitals, first responders, community health clinics and victims.
IMPACT	+20-30% Increase in graduation rates	<u>65% of people</u> experiencing homelessness depend on their cell phones to access medical care	<u>830 women</u> die every day giving birth; most of these deaths are preventable	18,815 Luke Lights & Chandler Chargers supplied to Direct Relief for disaster response

Area List -80 Countries – 4 Continents

>200,000 lights shipped

Africa

Burkina Faso	Chad	Ethiopia	Ghana
Kenya	Liberia	Malawi	Niger
Nigeria	Rwanda	Senegal	Somaliland
South Sudan	South Africa	Tanzania	Togo
Zimbabwe	Uganda		

Asia

Azerbaijan	Bangladesh	Japan (Disaster Relief)	India
Myanmar	Nepal	Philippines	Thailand

NORTH AMERICA

Haiti	Jamaica	Mexico	United States
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CENTRAL AND SOUTH AMERICA

Argentina	Belize	Costa Rica	Dominican Republic
Ecuador	Guatemala	Honduras	Panama
Venezuela	Peru		



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Rotary Partnerships



- 400 million people in India do not have electricity.
➡ 1700 lights to Rotary Club in India
- 90 million (out of 160 million) people in Bangladesh do not have electricity
➡ 2nd project pending: 4000 lights total
- Rotary is selling the lights in the United States for future Rotary-Unite to Light joint projects

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Peace Corps

Country projects in Burkina Faso and Ghana.

Photo taken with a flash to see all the kids!



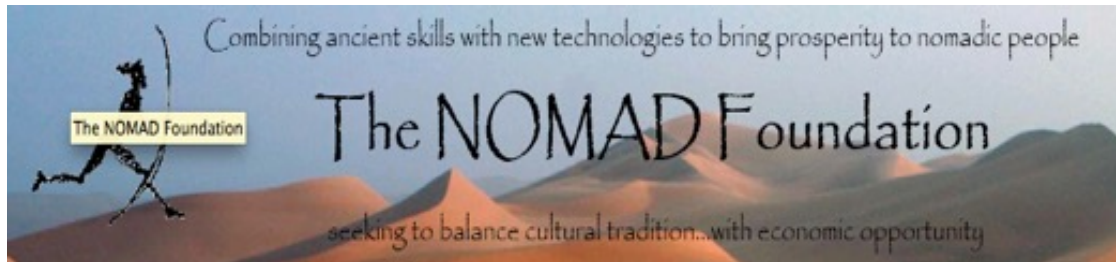
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Niger Nomad Foundation



Nomadic populations inherently do not have electricity, but have a great need for education. Nomad Foundation distributing to local organizations selling to nomads.



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Entrepreneurship: Solar Sisters

Lights are sent to Solar Sister in Uganda to support the development of their entrepreneurial sales program designed to create income and assets for women.



Solar Sister eradicates energy poverty by empowering women with economic opportunity. We combine the breakthrough potential of solar technology with a deliberately woman-centered direct sales network to bring light, hope and opportunity to even the most remote communities in rural Africa.

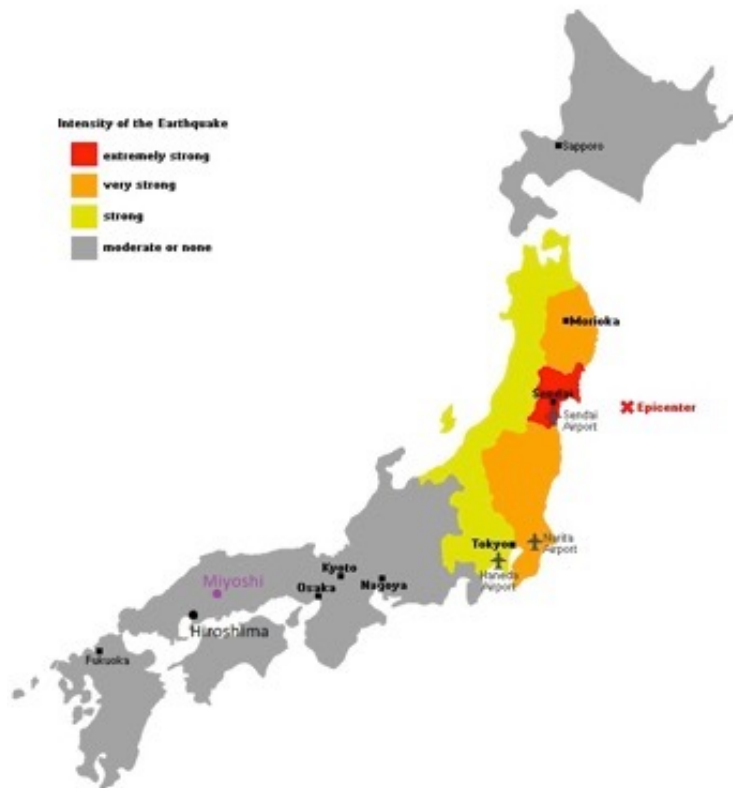
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Mitsubishi KAITEKI Institute



2000 lights to Tsunami victims

4800 lights to developing countries



The KAITEKI Institute, Inc. is a global research institute focused on meeting 21st century challenges in energy, the environment, and healthcare.

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South Africa: Under four trees

High school graduation exam
success percentage went up 33
after distributing lights to seniors!



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Solar Powered Libraries

The newest endeavor is to provide solar powered Kindles loaded with e-books to African schools. The first prototypes have been evaluated. We will ship 50 Kindles in December to schools and libraries that we have relationships with. A website for downloading age appropriate, religion appropriate material is being constructed.



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Volunteer



Colin Ristig of Davidson College raising awareness of solar lighting in India



Unite to Light interns at Earth Day



Volunteer Meeting

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How Can You Help?

Volunteer: Unite to Light needs volunteers for

Fund raising

Managing relationships with specific countries and organizations

Public Relations & Newsletter preparation

Identifying new prospective distribution partners

Tracking shipments and payments

Donor relations

Identifying the best shipping options to overseas destinations

Together, we can eliminate kerosene lighting in the next ten years. Solar powered lighting can be used by children at home for reading and study and for a variety of other uses, such as medical programs and disaster relief.

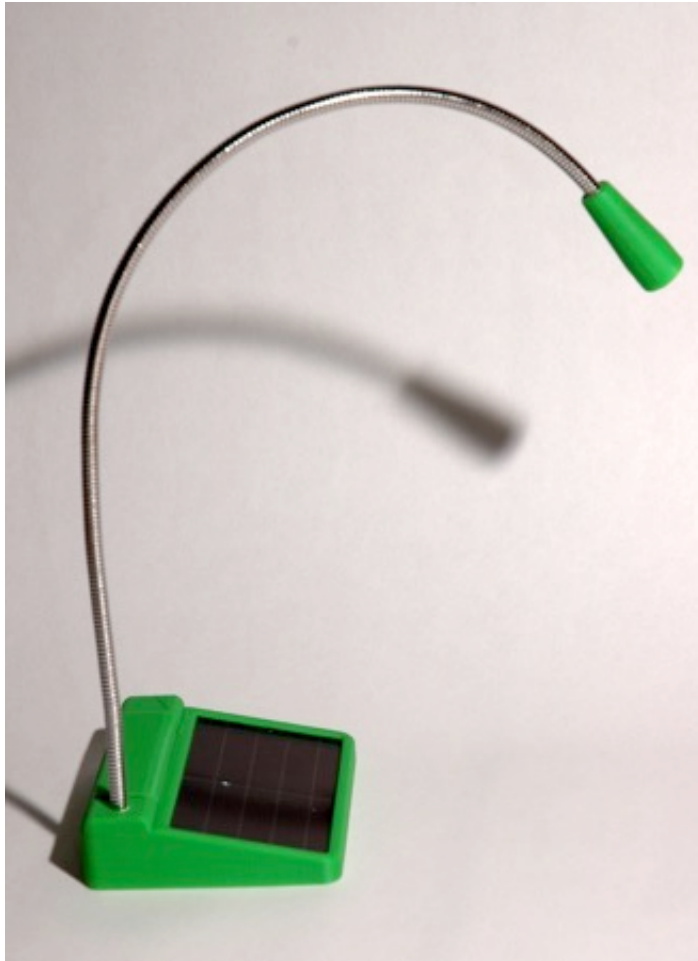
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FINANCIAL SUPPORTERS

(Partial List)

Holbrook Science Foundation
J & J Family Foundation
Paul F. Glenn Revocable Trust
The Bowers Foundation
The KAITEKI Institute, Inc.
Institute for Energy Efficiency at UC Santa Barbara
Goleta Presbyterian Church
St. Andrew's Presbyterian Church
Rotary International

MATCHING GRANTS through various employers (General Electric,
Merrill Lynch, Bank of America)

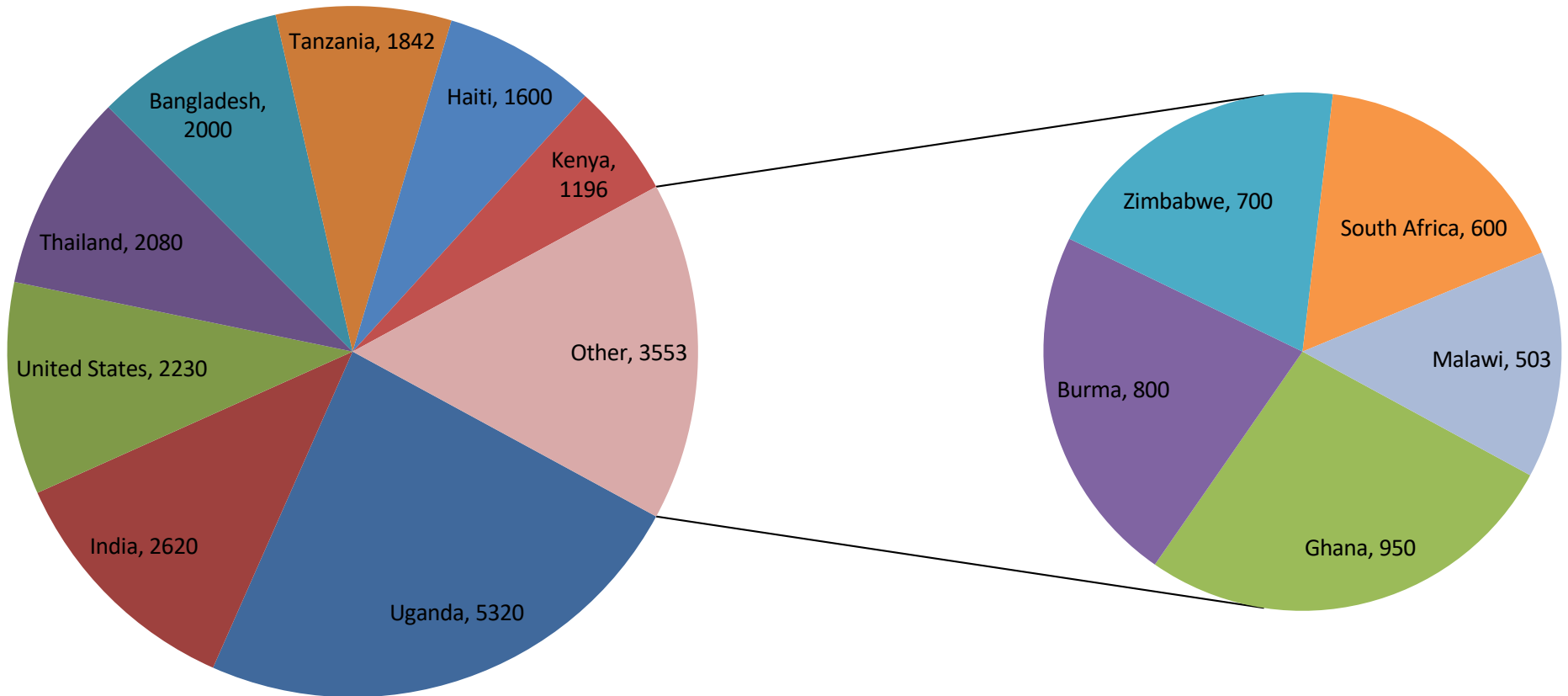
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140,000 lights distributed to date



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DIRECT RELIEF INTERNATIONAL

- 1000 lights to Haiti
- 1300 lights to
Edna Adan Hospital, Somaliland
Rural health clinics in Uganda
Midwife students supported by DRI
Childbirth kits



THE MISSION

*To improve the health and lives
of people affected by poverty,
disaster, and civil unrest.*

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