



# Social Impact Report

July – December 2015





Susan Akinyi selling fruit and vegetables from her stall, lit by solar light. Kisumu, Kenya.  
Photography Jeffrey Michial Walcott

Front cover Diana Asunya, 12, studies from her Swahili book by solar light. Kisumu, Kenya.  
Photography Jeffrey Michael Walcott

## Background

**In 2013, the Global Off-Grid Lighting Association (GOGLA) convened a working group on impact metrics to produce a harmonized industry standard for reporting on social impact for consistent use across the sector. At the time, there was no standard for calculating impact in the sector and, as a result, different organizations used different approaches or were limited in their capacity to report and communicate on this.**

The use of different approaches undermines credibility of results and prevents industry-wide aggregation. Credible benchmarking is important for policy discussions, advocacy efforts, and other initiatives where robust impact figures influence sector-related support and decisions. The vision of these metrics is to accurately describe estimated impacts in a harmonized and comparable manner. The mission is to attract investment, working capital, and regulatory support for the off-grid lighting industry that will help the sector to scale.

In the last two years the working group – comprised of member companies, associated members, and external experts – developed a set of metrics that allow the harmonized reporting. A key challenge to building standardized social impact metrics is that many of the benefits from off-grid lighting are difficult to track directly. For example, improvements in educational, health, and livelihood outcomes for people who adopt improved lighting. In a first step, the working group therefore developed metrics that are 1) relatively easy to track and measure, and 2) are linked through research and practical experience to the critical development outcomes.

In January 2016, GOGLA members were asked, for the first time, to also report data that allows for the calculation of the company as well as the sector estimated impact. For this purpose, the regular half-yearly sales data collection of GOGLA and Lighting Global was extended to include questions on product characteristics and company information that allow for calculation of impacts.

The following pages present the aggregated data of the participating companies. This report is the first in a series of half-yearly reports, aligned with the half-yearly sales data reporting already undertaken by GOGLA and Lighting Global.

As outlined, this is the first time GOGLA has reported on social impact metrics. The metrics will continue to be refined and expanded as GOGLA develops and improves the way it collects data and learns from that data. Therefore the impact data collection is very much a 'work in progress'.

# Methodology

Five metrics were developed, each of them is a combination of company data (such as sales, product characteristics, and other company information) and coefficients with default values. The default values of the coefficients were determined based on data publicly available or made available by participating GOGLA members, some assumptions and calculations.

All metrics, as well as coefficient default values, their definitions and rationale can be found in the GOGLA Standardized Impact Metrics for the Off-Grid Energy Sector<sup>1</sup>.

<sup>1</sup> [http://gogla.org/sites/www.gogla.org/files/recource\\_docs/gogla-standardised-impact-metrics-for-the-off-grid-energy-sector1\\_1.pdf](http://gogla.org/sites/www.gogla.org/files/recource_docs/gogla-standardised-impact-metrics-for-the-off-grid-energy-sector1_1.pdf)

All metrics have been reviewed by external experts and are largely aligned with the IRIS impact metrics<sup>2</sup>. The table below gives an overview of all the metrics developed and reported on in the following chapter.

<sup>2</sup> <https://iris.thegiin.org/off-grid-energy-metrics>

Table 1 - List of Metrics

Metric	
1ai.	Improved energy access, historically
1aii.	Improved energy access, currently
1b.	Basic energy needs met (based on SE4All methodology)
2.	Livelihoods supported
3.	Status quo lighting source no longer in use
4a.	Household change in available hours of light (%)
4b.	Household change in available light output (%)
5a.	Savings on energy-related expenditure, per household
5b.	Savings on energy-related expenditure, in aggregate

The data has been collected using an online questionnaire. It has then been complemented based on existing information and checked for consistency by the research team. As in the previous two sales data collection rounds, this data collection and reporting process was overseen by Dutch management consultancy firm Berenschot. Besides adding management capacity and expertise, their involvement has provided a safeguard, ensuring that all company data remains confidential. The research team also included experts from within the market research firm Research2Evolve (R2E) as well as personnel from IFC Lighting Global. GOGLA and World Bank experts provided advice to the team, but had no access to the data themselves.

Presented in this report are the aggregated results of the first GOGLA impact data collection round, covering the period of July 1 to December 31, 2015. A total of 31 companies filled out the questionnaire, providing data for 152 products. Of the respondents,

26 are manufacturers of off-grid lighting products and 5 are non-manufacturing distributors.

Data presented in this report is based on the global sales figures of participating companies. While this includes sales into developed countries in which impact metrics are not applicable for the obvious reasons, data presented is nevertheless very likely a conservative estimate, given that not all companies active in the field participated in the data collection exercise.

To prevent double counting, only the sales of manufacturers are reported in this aggregated report. In addition to reporting sales for the second half of 2015, companies were also asked to report sales from 2013 and 2014, thus allowing the calculation of the estimated impact of the complete 'installed base', i.e. all products sold in the past that are still functional.

Table 2 - List of Respondents

Respondents	
Azuri	Mobisol
Barefoot Power	Off-Grid: Electric
BBOX	OmniVoltaic
Bright Products AS	Panasonic
BrighterLite	RAL International
d.light	Solar Kiosk
Fenix International	Solar Sister
Flexiway Solar Solutions	Solar Works!
Fosera	SunnyMoney (SolarAid)
Futura Sun	Videre Global
Greenlight Planet	Village Power
Jua Energy	Waka-Waka (Off-Grid Solutions)
Lagazel	Zhejiang Holley
Little Sun	Zimpertec
Mibawa Suppliers	Zonful Energy
Micart (Micro-Mark)	

All data reported is self-reported data by the companies. Only when a product is tested by Lighting Global according to their standards, can reported product characteristics be verified. At this stage, there has been no systematic verification against the standards. This may however become an additional step in future data collection rounds.

The research team checked the entered data for consistency and logic. For this purpose, the Lighting Global official database was also used. Based on these checks, some small adjustments have been made to the data. Where meaningful data was missing the team tried to address this by consulting existing data, or by contacting respondents. Unfortunately, even after these actions, some

data was still missing. The estimated impact of products was only calculated where all the data was available; if data was missing, the product impact was not calculated and is therefore not represented in the aggregate numbers below.

All data was processed through a database. Only the Sustainable Energy for All (SE4ALL) factor, used for metric 1b: basic energy needs met, was manually calculated for all products where the necessary information was available. For this purpose, the team referred to the SE4ALL Tier 1 Impact Factor Estimator (IFC Lighting Global, 2015). Please see [this paper](#)<sup>3</sup> for further details.

<sup>3</sup> [http://www.worldbank.org/content/dam/Worldbank/Topics/Energy%20and%20Extract/Beyond\\_Connections\\_Energy\\_Access\\_Redefined\\_Exec\\_ESMAP\\_2015.pdf](http://www.worldbank.org/content/dam/Worldbank/Topics/Energy%20and%20Extract/Beyond_Connections_Energy_Access_Redefined_Exec_ESMAP_2015.pdf)

# Impact numbers

**76,000,000**

## Improved energy access, historically

How many people, cumulatively, have ever lived in a household which has an improved energy source? (i.e. solar)

**1,600,000**

## Livelihoods supported

How many people see their livelihoods benefit from the use of solar light products? This includes people who use their products for their business (or business-related activities) as well as direct employees within the distribution chain of such products.



**71,680,000**

## Improved energy access, currently

How many people, cumulatively, currently live in a household which has an improved energy source? (i.e. solar)

**27,230,000**

## Basic energy needs met

How many people have access to basic energy on Tier 1 (or the 'first rung on the energy ladder') of the SE4ALL Global Tracking Framework\*\*?

**\$ 3,471,840,000**

## Savings on energy-related spending

After buying a solar product, how much money is saved on lighting and phone charging, in aggregate?



**\$ 205**

## Savings on energy-related spending, per household

After buying a solar product, how much money does a household save on lighting and phone charging, on average\*\*?

**15,930,000**

## Number of status quo lighting sources no longer in use

How many former lighting sources (kerosene lanterns, candles and battery-powered torches, etc.) are no longer used since the customer replaced them with solar lighting?



**170%**

## Change in available hours of light, per household

What is the difference in available hours of light, per day, available to a household, owing to solar products, compared to available time from previous light sources (such as kerosene or candles, on average\*\*?)



**110%**

## Change in available light output

What is the difference in available light output (in lumens) from solar products, compared to the output of previous light sources (such as kerosene or candles), on average\*\*?

## Next steps

The GOGLA working group will continue to fine-tune the metrics by integrating the latest research and data harvested from the field. The metrics, as of now, mainly reflect the impact of portable solar lighting products as well as solar kits based on cash sales. As a next step, the working group will build metrics to ensure they better represent the impact of larger solar home systems as well as consider

ways to allow for and calculate impact depending on payment mechanism i.e. pay as you go business models.

Regular reports with updated impact numbers will be published on a half-yearly basis, together with the GOGLA/ Lighting Global sales data report.

\* The Global Tracking Framework was introduced by the UN's SE4ALL program and comprises five tiers which address a previous shortfall in energy access categorization. Before the framework was introduced, a household either had a grid connection or it did not i.e. electricity access was seen as binary. The framework includes a more nuanced approach, starting with Tier 1 as the most basic energy access of task lighting and phone charging, progressing up to Tier 5 which describes general home lighting system, television and fan, plus any other high power appliance.

\*\* The averages are built on products not household i.e. we assume one product per household. The average is based on a weighted average of products sales i.e. products with higher sales volumes are weighted higher than those where fewer have been sold.



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