LIGHTING AFRICA YEAR 1:
Progress and Plans

Annual Report
September 1, 2007 – August 31, 2008
World Bank Group
At a time when Africa is in the midst of energy uncertainty, fuel prices are fluctuating, and access to electricity remains limited, the opportunity to substitute costly, inefficient, and hazardous fuel-based lights (such as kerosene lamps and candles) for affordable and clean modern alternatives has become increasingly appealing to local consumers. Lack of modern energy access results in dire consequences on productivity and quality of life—with health, security, and incomes adversely affected.

For nearly a third of the world’s population, when the sun goes down and night falls, the option to flick on a light switch does not exist. In Sub-Saharan Africa, this problem is particularly acute, where as many as 90 percent of the rural population and 74 percent of the total population lack access to electricity. More than 500 million people living outside grid connectivity exist in a state of energy poverty—which is directly linked to economic poverty. Lacking modern lighting, these individuals rely on traditional forms of energy—biomass, charcoal, candles or, most commonly, fuel-based sources—such as kerosene—to meet their lighting needs. These options are costly, sometimes consuming about 10 percent of annual income. Moreover, fuel-based lighting yields substantial environmental and social costs, contributing to increased greenhouse gas emissions and indoor air pollution, reduced human health, safety issues, and limited overall productivity.

Accentuating this problem, the existing technologies currently available in the market are unable to meet the needs of African consumers and reach key market segments, notably the rural poor, with affordable off-grid solutions. Although there appears to be a significant market opportunity for off-grid lighting in Sub-Saharan Africa, with expenditures reaching US$17 billion in fuel-based lighting, the global lighting industry has, for the most part, been unable to penetrate this market and take advantage of this opportunity.

(*Lighting Africa* was created to help entrepreneurs in Africa and across the world innovate and deliver affordable, reliable, sustainable lighting products to the African marketplace. In September 2008, *Lighting Africa* completed its first year of operation—and a successful one it was.

Working in consultation with the lighting industry, *Lighting Africa* is helping to advance market research, promote product quality, boost policy support, and facilitate business-to-business linkages across the supply chain. We also successfully conducted the first *Lighting Africa* Business Conference and Trade Show, and held a Development Marketplace Competition to showcase the latest innovative ideas for delivering off-grid lighting to African consumers.

We wish to acknowledge with gratitude the support of donors, without whom *Lighting Africa* would not be possible. These are the World Bank, the Energy Sector Management Assistance Program, the Global Environment Facility, the Public-Private Infrastructure Advisory Facility, the Asia Sustainable and Alternative Energy Program, the Renewable Energy and Energy Efficiency Partnership, Good Energies Inc., and the Governments of Luxembourg, the Netherlands, and Norway.

In the years to come we look forward to fortifying existing relationships, cultivating new ones, and forging partnerships both between and across entrepreneurial and geographical lines. We welcome your ongoing collaboration and participation in this exciting program.

Anil Cabraal
*World Bank Lighting Africa Program Manager*

Russell Sturm
*IFC Lighting Africa Program Manager*
## Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTAE</td>
<td>Asia Sustainable and Alternative Energy Program</td>
</tr>
<tr>
<td>B2B</td>
<td>Business-to-business</td>
</tr>
<tr>
<td>ESMAP</td>
<td>Energy Sector Management Assistance Program</td>
</tr>
<tr>
<td>CDM</td>
<td>Clean Development Mechanism</td>
</tr>
<tr>
<td>CFL</td>
<td>Compact fluorescent lamp</td>
</tr>
<tr>
<td>IEA</td>
<td>International Energy Agency</td>
</tr>
<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>LBOP</td>
<td>Lighting the Bottom of the Pyramid</td>
</tr>
<tr>
<td>LED</td>
<td>Light-emitting diode</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>NGO</td>
<td>Nongovernmental organization</td>
</tr>
<tr>
<td>PDD</td>
<td>Project Design Document</td>
</tr>
<tr>
<td>PoA</td>
<td>Program of Activities</td>
</tr>
<tr>
<td>PPIAF</td>
<td>Public-Private Infrastructure Advisory Facility</td>
</tr>
<tr>
<td>PV GAP</td>
<td>Global Approval Program for Photovoltaics</td>
</tr>
<tr>
<td>REEEP</td>
<td>Renewable Energy and Energy Efficiency Partnership</td>
</tr>
<tr>
<td>SME</td>
<td>Small and medium enterprise</td>
</tr>
</tbody>
</table>
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1. Introduction

The purpose of this document is to present activities and outcomes of the first year operation of the Lighting Africa Program. Lighting Africa was officially launched in September 2007 and is jointly managed by the World Bank and the International Finance Corporation (IFC), leveraging the comparative advantage of both organizations to support the rapid scale-up and delivery of modern off-grid lighting to Sub-Saharan Africa. Lighting Africa builds upon the pioneering work of the Lighting the Bottom of the Pyramid (LBOP) program, which was created by IFC.

What is Lighting Africa?

Lighting Africa is a World Bank Group initiative aimed at helping 250 million people in Sub-Saharan Africa gain access to non–fossil fuel-based, low-cost, high-quality, safe, and reliable lighting products by the year 2030.

Lighting Africa addresses the lighting needs of rural, urban, and periurban customers without electricity access—predominantly low-income households and businesses. Lighting Africa offers an alternative to currently available lighting options for consumers who rely predominantly on fuel-based kerosene lamps and candles.

Lighting Africa is designed to contribute to the Millennium Development Goals (MDGs) by reducing poverty and enhancing quality of life. It is a cornerstone of the World Bank Group’s support to increasing access to modern energy services in Africa.

Why Lighting Africa? Why Now?

Currently, 1.6 billion people worldwide are without electricity. The International Energy Agency (IEA) predicts that by 2030 (absent major policy changes), projected investments in grid electricity expansion will leave 1.4 billion people without modern energy services for basic human needs and economic development. The problem is most acute in Sub-Saharan Africa where more than 500 million people presently lack modern energy, with rural electricity access rates as low as 2 percent.

Among the poorest of the poor, lighting is often the most expensive item among their energy uses, typically accounting for 10 percent of total household income. Although consuming a significant share of scarce income, fuel-based lighting provides little in return.

New advancements in lighting technology, such as compact fluorescent lamps (CFLs) and light-emitting diodes (LEDs), promise clean, durable, lower-cost, and higher-quality lighting. The challenge is to leverage these technologies to develop products and business models specifically targeted at the half billion “energy poor” in Africa. The potential exists to engage the African and international lighting industry in this new market area, while serving consumers, bolstering local commerce, creating jobs, enhancing incomes, cleaning the air, and improving health, safety, and quality of life.
Lighting Africa Objectives

The program is facilitating the transition to modern lighting services in the following ways:

- Catalyzing the private sector, including strengthening ties between the international lighting industry and local manufacturers, traders, and service providers to profitably manufacture, market, and distribute significantly lower-cost products.
- Enhancing consumer access to a range of affordable, reliable, and high-quality lighting products and services.
- Empowering consumers to make informed purchasing decisions regarding product quality.
- Improving market conditions for the scale-up of modern lighting products by reducing existing technical, financial, policy, information, and institutional barriers.
- Mobilizing the international community—governments, private sector, international organizations, and nongovernmental organizations (NGOs)—to aggressively support the penetration of modern lighting services for the poor in Africa.

Lighting Africa seeks the rapid scale-up and delivery of affordable, non–fossil fuel lighting, and especially opportunities for dramatic cost reductions. It builds upon the institutional capacities already existing in Africa and globally, with a bottom-up focus on consumer needs.

Lighting Africa is technology neutral and open to a range of modern energy options for delivering low-cost, high-quality lighting services. It works with public and private sector stakeholders across a variety of sectors to reduce transaction costs, mitigate market risks, and promote commercial discipline.

This report provides a summary of Lighting Africa activities over the period September 1, 2007–August 31, 2008.
2. Lighting Africa: The Year in Review

Since its inception, Lighting Africa has made significant progress on a number of key areas as discussed below.

Market Research Under Way

Because the off-grid lighting market in Africa is largely undeveloped and unexplored, essential market information is largely absent. This includes data on market potential, an understanding of consumer needs and lighting preferences, product attributes and design characteristics, and distribution channels for product delivery. To facilitate market entry, Lighting Africa has retained Research International, a global market research firm, to undertake extensive market research in five countries—Ethiopia, Ghana, Kenya, Tanzania, and Zambia—and two key market segments—households and small businesses. The focus of the study is to provide access to essential market and consumer information otherwise onerous and expensive for individual companies and entrepreneurs to obtain. The preliminary results of the research were presented in May 2008 in Accra, Ghana, at the first Lighting Africa 2008 Conference and are posted on the Lighting Africa website for review.

Clean Development Mechanism Methodologies in Development

Lighting Africa is aiming to improve the financial attractiveness of modern off-grid lighting products and services through innovative applications of carbon finance. This work is seeking to develop approaches to mainstreaming a Clean Development Mechanism (CDM) in eligible initiatives, including adapting streamlined programmatic approaches (Program of Activities, or PoA) to the CDM and voluntary carbon markets for distributed lighting solutions. A PoA-based CDM methodological approach and an associated template Project Design Document (PDD) were developed for potential application to eligible Lighting Africa initiatives, to create the opportunity to monetize the carbon mitigation value of replacing fuel-based lighting with efficient electric lighting. In order to increase familiarity with CDM and develop capacity within the lighting industry in Africa to leverage these new financing opportunities, three outreach and capacity building workshops were held during the past year. They were conducted in Addis Ababa, Ethiopia, October 2008; Dar es Salaam, Tanzania, March 2008; and Accra, Ghana, May 2008, in collaboration with World Bank Institute’s Carbon Finance Assist program.
First Global Business Conference for Off-Grid Lighting: Lighting Africa 2008

On May 6–8 2008, the first Lighting Africa Conference was held in Accra, Ghana. Lighting Africa 2008—Global Business Conference for Off-Grid Lighting in Africa—attracted more than 500 representatives from nearly 50 countries representing the global lighting industry, local distributors, project developers, service providers, NGOs, governments, financiers, consumer groups, and other stakeholders (Figure 1).

The conference succeeded in the following:

- Unveiling the vast opportunities in the off-grid lighting market for Sub-Saharan Africa.
- Establishing business linkages and partnerships.
- Identifying new and innovative products, services, and business models.
- Providing key market intelligence.
- Offering insight to the Lighting Africa Team for incorporation into future program design.

The proceedings of the workshop are available at http://www.lightingafrica.org.

In addition to plenary sessions, a trade fair hosted 50 industry and 52 Development Marketplace competition booths displaying a wide range of products and services from countries across Africa, as well as globally.

Development Marketplace Grant Competition

In conjunction with Lighting Africa 2008, a Development Marketplace Grant Competition was conducted, which awarded more than US$3 million in seed capital for innovative off-grid lighting projects in Africa. Winning proposals spanned a number of countries across Africa, including Burkina Faso, Cameroon, Ghana, Kenya, Liberia, Namibia, Nigeria, Rwanda, Tanzania, Uganda, and Zambia. The program originally received more than 400 proposals from 54 countries, including 38 African nations. Fifty-two finalists, including small and medium enterprises (SMEs), were selected to fully develop their business plans and present their proposals to an international jury. Of these, 16 winners were selected at the Accra conference. Table 1 identifies the Development Marketplace winners.
Table 1: Winners of the *Lighting Africa* Development Marketplace 2008 Competition

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Project Title</th>
<th>Organization</th>
<th>Country of implementation</th>
<th>Amount requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>4256</td>
<td>One Child One Solar Light</td>
<td>SOLUX e.V.</td>
<td>Ghana</td>
<td>199,720</td>
</tr>
<tr>
<td>4260</td>
<td>Power to the Poor: Off-Grid Lighting from Cassava Waste in Nigeria</td>
<td>Global Network for Environment and Economic Development Research</td>
<td>Nigeria</td>
<td>200,000</td>
</tr>
<tr>
<td>4279</td>
<td>Lighting the Way</td>
<td>UC Davis</td>
<td>Zambia</td>
<td>199,800</td>
</tr>
<tr>
<td>4322</td>
<td>Providing Affordable Home and Business Lighting for Africa with Dye Sensitized Solar and Mesopic LED technology</td>
<td>G24 Innovations</td>
<td>Rwanda</td>
<td>198,925</td>
</tr>
<tr>
<td>4329</td>
<td>Recharging Fees for Lamps Can Buy Hours of Solar Light</td>
<td>Sunlabob</td>
<td>Uganda</td>
<td>199,662</td>
</tr>
<tr>
<td>4335</td>
<td>Popularize a Local Solar Lantern</td>
<td>CB ENERGIE</td>
<td>Burkina Faso</td>
<td>92,200</td>
</tr>
<tr>
<td>4347</td>
<td>Technology Transfer and Development of Local Entrepreneurs in LED based Home Lighting in Kenya</td>
<td>THRIVE</td>
<td>Kenya</td>
<td>188,000</td>
</tr>
<tr>
<td>4374</td>
<td>Kodesha Mwangaza—Rent a Light</td>
<td>Solar World EA Ltd</td>
<td>Kenya</td>
<td>177,730</td>
</tr>
<tr>
<td>4458</td>
<td>Family Pedal Power and Lighting Project—East Africa</td>
<td>dissigno</td>
<td>Multicountry</td>
<td>199,599</td>
</tr>
<tr>
<td>4509</td>
<td>Providing Affordable and Reliable Solar Systems in Northern Tanzania</td>
<td>Zara Solar Ltd</td>
<td>Tanzania</td>
<td>200,000</td>
</tr>
<tr>
<td>4535</td>
<td>Solar Energy Provision for Lighting and Portable Water Provision to the Low Income Rural Community of the N'ganya Village in the Adamawa Province</td>
<td>Global Village Cameroon</td>
<td>Cameroon</td>
<td>184,885</td>
</tr>
<tr>
<td>4604</td>
<td>Lights For Life in Sub-Saharan Africa</td>
<td>Lights for Life</td>
<td>Rwanda</td>
<td>199,275</td>
</tr>
<tr>
<td>4700</td>
<td>Rural Lighting Access Program</td>
<td>GPower</td>
<td>Kenya</td>
<td>193,344</td>
</tr>
<tr>
<td>4737</td>
<td>Village Lighting Solutions to Improve Education, Health, Safety and Productivity in Rural Namibia</td>
<td>The Lebone Group</td>
<td>Namibia</td>
<td>198,877</td>
</tr>
<tr>
<td>4745</td>
<td>Working through Faith-Based Organizations to Provide Improved Lighting and Battery Charging for Low-income Households and Street Vendors in Rural Communities</td>
<td>Center for Sustainable Energy Technology</td>
<td>Liberia</td>
<td>199,550</td>
</tr>
</tbody>
</table>

**Product Quality Assurance Program**

To shield African consumers from poor-performing lighting products and to avoid market spoilage, a product quality assurance program is under way to enhance consumer awareness, support the industry in providing technologies appropriately tailored to the African consumer base, and boost confidence in new lighting products. A Quality Assurance Workshop was held with international experts to inform the design of the quality assurance program, which consists of the following complementary pillars: ¹

- A product testing method and performance specification to aid bulk procurements.
- A code of principles for industry stakeholders that ultimately should merge into a quality seal for off-grid lighting products.
- A process by which periodic reviews of off-grid lighting products are routinely advertised (supported by a consumer education campaign) in the African marketplace.

¹ The workshop proceedings are available at www.lightingafrica.org.
Work has begun on these pillars in consultation with key stakeholders and with participation from the industry. In recognition of the urgent need to have qualified products available for both bulk procurements as well as for the retail trade, two activities were started:

- A contract was issued to the Geneva-based Photovoltaic Global Approval Program to undertake testing of 10 solar lanterns according to the Global Approval Program for Photovoltaics (PV GAP) PVRS11A standard. The testing is being done in partnership with TÜV-Rhineland in Cologne, Germany, and the Photovoltaic and Wind Quality Test Center in Beijing, China. Results are expected beginning January 2009.
- A contract was issued to the Fraunhofer Institute for Solar Energy in Freiburg, Germany, to develop a quick and low-cost quality screening methodology for selecting reliable and high-quality LED lamps. A preliminary testing methodology is expected in March 2009, which will then be applied toward specific product testing and subsequently refined throughout July 2009.

**The Success of Lighting Africa’s Business-to-Business Website**

One of the key barriers identified by industry preventing them from accessing the off-grid lighting market is an inability to identify the relevant market players across the supply chain and gauge the scope of market opportunity. In response, Lighting Africa is leading a number of initiatives aimed at creating an enabling environment for partnership formation and new business relationships, filling many needed voids in the African off-grid market value chain. Lighting Africa’s business-to-business (B2B) web portal (Figure 1) is a networking tool designed to foster industry collaboration, knowledge exchange, and the collection and dissemination of information. It now has as many as 1,200 registered members (and growing), including more than 500 organizations from around the world. See www.lightingafrica.org. The portal includes a number of features, including the following:

- **Virtual Business Community:** Lighting Africa members join, browse, connect, and network with other members online. Members can create a business space on the website to share and update information about their company and themselves, and collaborate with other companies to participate actively in the efforts to bring modern lighting to Africa.
- **Discussion Forums:** Members have participated in discussion forums to exchange ideas and information. Discussion forums are organized on topics and issues of interest to the membership relating to Lighting Africa. These forums are also used by the Lighting Africa team to solicit feedback on planned program activities and gauge demand for new program areas.
- **Business Opportunities:** Members exchange information about upcoming business opportunities by posting and receiving business leads, forming local and global partnerships, exchanging timely information and business ideas, and establishing alliances with in-country partners.

In addition, Lighting Africa partners receive a periodic newsletter, Lighting Africa Executive Brief, to help keep them up-to-date on progress.
Integrating Off-Grid Lighting Options in Rural Energy Access Projects

*Lighting Africa* is leveraging existing World Bank activities by helping to incorporate off-grid lighting services into World Bank–financed rural electricity access projects in several African countries. These cooperative programs are designed to tie off-grid lighting technologies into the broader energy access strategies of partner countries by leveraging World Bank sector expertise and relationships with governments. To facilitate such work across the continent, *Lighting Africa* is developing a “standardized” approach by supporting the development of project tools and information that implementing agencies can adopt with minimal costs—these include market research, quality assurance, CDM mainstreaming, consumer outreach, and trade and supply networks. Currently, *Lighting Africa* is cooperating with World Bank projects in Ethiopia, Ghana, Tanzania, and Zambia with plans for expansion to other countries next year.
3. Implementation

*Lighting Africa* is considered a good-practice example of how the World Bank and IFC can support each other to collaboratively develop sustainable solutions to meet the needs of the poor.

**Management**

An innovation within the World Bank Group, jointly managed by a team that cross-cuts both institutions with local and field-based staff, the program leverages the comparative advantages of each organization, acting in cohesion to reach the African consumer in the best way possible with the delivery of modern off-grid lighting.

Following are the key management leaders:

- **Mr. Anil Cabraal, World Bank *Lighting Africa* Program Manager (Washington, D.C.).**
- **Mr. Russell Sturm, IFC *Lighting Africa* Program Manager (Washington, D.C.).**
- **Mr. Cyril Kattah, *Lighting Africa* Project Manager (Accra, Ghana, Regional Office).**

Additionally, a number of team leaders have been assigned to coordinate and manage specific task activities. The *Lighting Africa* management structure is provided in Figure 2.

**Budget**

The *Lighting Africa* Year 1 budget is provided in Table 2. It includes a summary of expenditures by key activities, and the sources of funding. In total, approximately US$2.072 million was spent in Year 1 *Lighting Africa* operations. An additional US$3.055 million was awarded as grants to 16 Development Marketplace award winners. Funding sources included the World Bank, IFC, the Energy Sector Management Assistance Program (ESMAP), the Global Environment Facility, the Public-Private Infrastructure Advisory Facility, the Asia Sustainable and Alternative Energy Program (ASTAE), the Renewable Energy and Energy Efficiency Partnership (REEEP), Good Energies Inc., and the Governments of Luxembourg, the Netherlands, and Norway.²

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² ESMAP is a knowledge partnership supported by the World Bank and official donors from Australia, Austria, Denmark, France, Germany, Iceland, the Netherlands, Norway, Sweden, the United Kingdom, and the U.N. Foundation. ESMAP has also enjoyed the support of private donors, as well as in-kind support from a number of partners in the energy and development community.
Figure 2: Lighting Africa Organization

A. Cabraal  
Program Manager  
The World Bank

R. Sturm  
Program Manager  
International Finance Corporation

C. Kattah  
Project Manager  
Accra, Ghana

TASK 1  
Modern Lighting Markets  
C. Kattah

TASK 2  
DM and Lighting Africa Conferences  
J. Siegel

TASK 3  
Technology Improvement & Quality  
P. Avato

TASK 4  
Modern Finance/CDM Facilitation  
R. Sturm

TASK 5  
Communications and Knowledge  
P. Avato (Acting)

TASK 6  
Policy & Public Sector Operations  
D. Rysankova

A.Cabraal  
Program Manager  
The World Bank

R. Sturm  
Program Manager  
International Finance Corporation

C. Kattah  
Project Manager  
Accra, Ghana

TASK 1  
Modern Lighting Markets  
C. Kattah

TASK 2  
DM and Lighting Africa Conferences  
J. Siegel

TASK 3  
Technology Improvement & Quality  
P. Avato

TASK 4  
Modern Finance/CDM Facilitation  
R. Sturm

TASK 5  
Communications and Knowledge  
P. Avato (Acting)

TASK 6  
Policy & Public Sector Operations  
D. Rysankova

A.Cabraal  
Program Manager  
The World Bank

R. Sturm  
Program Manager  
International Finance Corporation

C. Kattah  
Project Manager  
Accra, Ghana

TASK 1  
Modern Lighting Markets  
C. Kattah

TASK 2  
DM and Lighting Africa Conferences  
J. Siegel

TASK 3  
Technology Improvement & Quality  
P. Avato

TASK 4  
Modern Finance/CDM Facilitation  
R. Sturm

TASK 5  
Communications and Knowledge  
P. Avato (Acting)

TASK 6  
Policy & Public Sector Operations  
D. Rysankova
Table 2: Program Budget for Year 1 of Lighting Africa through August 30, 2008

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total Contracted (US$’000)</th>
<th>Total Disbursed (US$’000)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market Research/Value Chain Assessment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Market Research in Kenya, Ghana, Ethiopia, Tanzania and Zambia</td>
<td>1,202</td>
<td>445</td>
</tr>
<tr>
<td><strong>First Lighting Africa Conference &amp; Development Marketplace</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Conference &amp; Development Marketplace</td>
<td>796</td>
<td>796</td>
</tr>
<tr>
<td><strong>Quality Assurance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Needs Assessment, Scoping Study &amp; Collab w/Industry</td>
<td>168</td>
<td>168</td>
</tr>
<tr>
<td>- Solar Lantern Testing</td>
<td>197</td>
<td>148</td>
</tr>
<tr>
<td>- LED Quality Testing Quick Screening Methodology (Phase 1)</td>
<td>143</td>
<td>-</td>
</tr>
<tr>
<td>- Manufacturer Design Support Clearinghouse</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td><strong>Clean Development Mechanism</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Methodology Development</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>- Training Workshops</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td><strong>Web Site, Knowledge Forum &amp; Communications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Program Management</td>
<td>108</td>
<td>108</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td>3,021</td>
<td>2,072</td>
</tr>
<tr>
<td><strong>Development Marketplace Awards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- World Bank</td>
<td>211</td>
<td>211</td>
</tr>
<tr>
<td>- World Bank Institute CF-Assist</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>- IFC Sustainable Business Innovator MDTF (including Luxembourg contrib)</td>
<td>276</td>
<td>276</td>
</tr>
<tr>
<td>- ESMAP (Core, Denmark, UK DFID SME, SIDA funding)</td>
<td>1,127</td>
<td>653</td>
</tr>
<tr>
<td>- Asia Sustainable and Alternative Energy Program</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td>- Global Environment Facility for IFC LBOP Project</td>
<td>1,076</td>
<td>681</td>
</tr>
<tr>
<td>- Norway (WB &amp; IFC)</td>
<td>212</td>
<td>213</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td>3,055</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Funds</strong></td>
<td>6,076</td>
<td>2,072</td>
</tr>
</tbody>
</table>

**Funding Sources**

| Lighting Africa Program Operations                          |                            |                            |
| - World Bank                                                | 211                        | 211                        |
| - World Bank Institute CF-Assist                             | 38                         | 38                         |
| - IFC Sustainable Business Innovator MDTF (including Luxembourg contrib) | 276                        | 276                        |
| - ESMAP (Core, Denmark, UK DFID SME, SIDA funding)           | 1,127                      | 653                        |
| - Asia Sustainable and Alternative Energy Program            | 80                         | -                          |
| - Global Environment Facility for IFC LBOP Project           | 1,076                      | 681                        |
| - Norway (WB & IFC)                                          | 212                        | 213                        |
| **SUB-TOTAL**                                                | 3,021                      | 2,072                      |

**Development Marketplace Awards**

| World Bank                                                | 211                        |                            |
| - Global Environment Facility                              | 1,000                      | -                          |
| - Public-Private Infrastructure Advisory Facility          | 1,000                      | -                          |
| - ESMAP CEIF MDTF (Netherlands)                            | 600                        | -                          |
| - Renewable Energy and Energy Efficiency Partnership       | 144                        | -                          |
| - Good Energies Inc.                                        | 100                        | -                          |
| **SUB-TOTAL**                                              | 3,055                      | -                          |

| Total Funds                                                | 6,076                      | 2,072                      |
4. Moving Forward

In the coming years, **Lighting Africa** will deepen activities launched in 2007, and expand into new programmatic and geographic areas. Particular effort will be given to expansion into francophone countries. Planned activities include the tasks described below.

**Task 1: Modern Lighting Markets**

- **Market Research**: Market research results for Ethiopia, Ghana, Kenya, Tanzania, and Zambia will be issued. The next phase of market research will expand into a number of new countries, especially in West Africa.
- **Value Chain and Distribution Channels**: This task will analyze the value chain of modern off-grid lighting products in comparison to traditional, fuel-based lighting products in the African marketplace. It will also identify and mobilize organizations and businesses operating in the local distribution channels in Africa, and publicize their services in the **Lighting Africa** online business directory.
- **Industry Alliance**: Activities will focus on expanding the industry alliance seeded through the website and **Lighting Africa** 2008 Conference by catalyzing industry working groups focused around reducing key market barriers. The website will serve as a virtual collaboration space for these interactions.
- **Consumer Outreach**: A **Lighting Africa** consumer outreach campaign will be launched to inform consumers about the opportunities of modern lighting and help them make informed purchasing decisions concerning product quality. As part of this effort, reviews of off-grid lighting products will be conducted and advertised in the African marketplace, including to consumers, importers, and distributors.
- **Country Profiles**: **Lighting Africa** will collect and analyze data to produce “Doing Efficient Lighting Business” profiles of seven African countries. These country profiles will make available in one place key information of importance to companies in contemplating entry into the African off-grid lighting market, to include economic, demographic, market, finance, and policy data, as well as information on key organizations in the countries (public, private, NGOs) relevant to the lighting business.

**Task 2: Development Marketplace and Conferences**

- **Development Marketplace Winners to Launch Activities**: The 16 Development Marketplace winners will begin program implementation, which is expected to span up to 18 months. The **Lighting Africa** team will supervise the implementation.
- **Lighting Africa 2009 Conference**: Planning for the Second **Lighting Africa** Conference will commence for this event that will be held in late 2009 in Kenya.

**Task 3: Technology Improvement and Quality**

- **Quality Assurance**: Work will begin on the development of a quality seal for off-grid lighting products that incorporates a code of principles for industry stakeholders.
- **LED Quick Screening Methodology**: The methodology results will be provided for feedback from the industry. The approach will be used to review existing products and specifications, and prepare regular test reports for evaluated products.

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Task 5: Communications and Knowledge

➤ **Social and Sustainability Issues:** Lighting Africa will initiate work on key social and sustainability issues that have been raised with respect to the program. Social issues will address gender and local manufacturing consideration. Sustainability issues will address such items as battery recycling and safe disposal of CFLs.

➤ **B2B Website:** A new and improved Lighting Africa website will be launched, which will be more user-friendly and dynamic, and which will allow more interaction between stakeholders.

➤ **Monitoring and Evaluation:** A monitoring and evaluation program for tracking program progress and results will be established.

Task 6: Policy and Public Sector Operations

➤ **Policy Support:** In order to address the numerous regulatory and policy barriers that were articulated during the Lighting Africa 2008 Conference, a multicountry policy study will be conducted. It will identify and assess policy and regulatory barriers (for example, taxes, import restrictions, and subsidies for competing products), the results of which would be used for a policy dialogue with the respective governments aimed at improving business environments. The work will be piloted in Ghana and Kenya with additional activities planned to follow in Ethiopia, Rwanda, and Senegal.

➤ **Off-Grid Lighting Toolkit.** A toolkit comprised of design guidance, model procurement documents, and other resource materials will be prepared to support the design and implementation of off-grid lighting components in public sector rural energy projects. Dissemination will be conducted through rural energy/electrification agencies.

➤ **Integrating Off-Grid Lighting into World Bank–Financed Rural Energy Operations.** Work will continue in lending operations in Ethiopia, Ghana, Rwanda, Senegal, Tanzania, and Zambia. New initiatives will be considered in several other countries.