

SPANDA FOUNDATION

COMPARE



PRACTICES *&* RESULTS
OF A SELECTION OF
SOLAR POWER/MICROFINANCE
PROJECTS IN WEST AFRICA



SPANDA



SPANDA FOUNDATION

COMPARE



PRACTICES & RESULTS
OF A SELECTION OF
SOLAR POWER/MICROFINANCE
PROJECTS IN WEST AFRICA



RESEARCH TEAM

SAHLAN MOMO *Director*

BETHANY POLLER *Editing*

LISA-FELICIA AFI AKORLI ~ JOCELYN AMIES ~ ANDREI FEDOREEV

NIKI KELI ~ MATIAS LETHO ~ DONG HOON SHIN



Compare. Practices & Results of a Selection of Solar Power/Microfinance Projects in West Africa is the product of a collaborative effort involving members of the Research Team and many other people, agencies and institutions. The findings, interpretations and designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of Spanda Foundation concerning the legal status of any territory, city or area, or its authorities, or concerning the delimitation of any territory, frontiers and boundaries or the endorsement or acceptance of such boundaries. Spanda Foundation does not guarantee the accuracy of the data included in this work even though they refer to the most recent available sources. Inaccuracies should be ascribed to the original sources.

Every reasonable attempt has been made to identify the owners of pictures' copyright. Errors or omissions will be amended in subsequent editions.



SPANDA FOUNDATION

COMPARE. PRACTICES & RESULTS OF A SELECTION OF
SOLAR POWER/MICROFINANCE PROJECTS IN WEST AFRICA

The Hague: Spanda Publishing 2011 ~ 30 cm;

(Spanda: Spanda Papers 5)

ISBN 978-88-7778-128-4

First published 2011

Cover and Frontispice

Energy Pulsar

Design

Spanda Creative Unit, The Hague

© SPANDA PUBLISHING 2011

*Spanda Publishing is an imprint
of Semar Publishers.*

EMAIL INFO@SPANDA.ORG

WWW.SPANDA.ORG | WWW.SEMAR.ORG



All rights reserved.

*No part of this document may
be reproduced or transmitted in any form by
any means without permission in writing from the publisher.
Spanda encourages dissemination of this work and will normally
grant permission to reproduce portion of the work promptly.
Applications with complete information should be sent to*

Spanda Publishing at rights@spanda.org.

*All other queries on rights and licences,
including subsidiary rights,
should be addressed to the Office of the Publisher:*

*Spanda Foundation,
Laan van Meerdervoort 70,
2517AN The Hague, The Netherlands.*



CONTENTS



ACRONYMS v

INTRODUCTION 1

1	SOLAR POWER	3	2.2.2	LOCAL ENTERPRISE ASSISTANCE PROGRAMME (LEAP)	30
1.1	~ INTRODUCTION	3	2.2.3	~ GRASSROOTS GENDER EMPOWERMENT MOVEMENT (GGEM)	36
1.2	~ SELECTION CRITERIA	3	2.2.4	~ COMMUNITY EMPOWERMENT AND DEVELOPMENT AGENCY (CEDA)	37
1.3	~ CHOSEN PROJECTS	3	2.2.5	~ LIFT ABOVE POVERTY ORGANIZATIONS (LAPO)	41
1.4	~ OVERVIEW OF CASE STUDIES	3	2.2.6	~ BANGLADESH RURAL ADVANCEMENT COMMITTEE (BRAC)	43
1.4.1	~ ENVIRONMENTAL FOUNDATION FOR AFRICA	5	2.2.7	~ SALONE MICROFINANCE TRUST (SMT)	44
1.4.2	~ MALI FOLKECENTER	7	2.3	~ CURRENT MICROFINANCE SITUATION AND POLICIES	45
1.4.3	~ POWER UP GAMBIA (PUG)	8	2.3.1	~ THE MICROFINANCE POLICIES	46
1.4.4	~ RENEWABLE ENERGY GHANA	10	2.3.2	~ THE SUPPLY OF MICROFINANCE IN SIERRA LEONE	46
1.4.5	~ SOLAR ELECTRIC LIGHT FUND (SELF)	14	2.3.2.1	~ THE SUPPLIERS	46
1.4.6	~ SOLAR LIGHT FOR AFRICA (SLA)	15	2.3.2.2	~ MICRO-CREDIT PRODUCTS, TERMS & CONDITIONS	47
1.4.7	~ SUNPOWER AFRIQUE (SPA)	19	2.3.2.3	~ CAPACITY BUILDING	47
1.5	~ ANALYSIS OF CASE STUDIES	19	3	CONCLUSION	49
1.5.1	~ SUCCESSES	19	3.1	~ TARGET GROUPS	49
1.5.1.1	~ COMMON	19	3.2	~ TYPES OF PRODUCTS	49
1.5.1.2	~ SPECIFIC	21	3.3	~ TRAINING	49
1.5.2	~ SHORTCOMING	22	3.4	~ ORGANIZATIONAL STRUCTURE	49
1.5.2.1	~ COMMON	22	3.5	~ LIMITATIONS	49
1.5.2.2	~ SPECIFIC	23	4	BIBLIOGRAPHY	51
2	MICROFINANCE	27			
2.1	~ INTRODUCTION	27			
2.2	~ CASE STUDIES	27			
2.2.1	~ FINANCE SALONE	27			





ACRONYMS

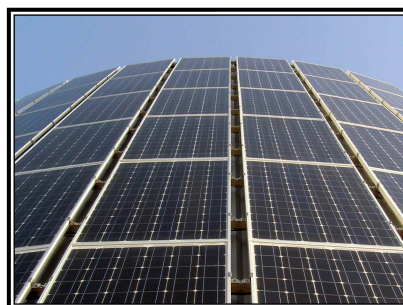


ADESCA	Association pour le Developement Economique Social et Culturel de Kalalé
AEL	Association of Evangelicals of Liberia
ARC	American Refugee Committee
ARD	Association for Rural Development
BRAC	Bangladesh Rural Advancement Committe
BSL	Bank of Sierra Leone
CEDA	Community Empowerment and Development Agency
CEET	Compagnie Energie Electrique du Togo
CFI	Child Fund International
CGAP	Consultative Groups to Assist the Poor
CMFC	Chicago Microfinance Conference
CORDAID	Dutch international development organization
CPI	Corruption Perceptions Index
DMC	Development Marketplace Competition
EFA	Environmental Foundation for Africa
FLEC	Family Life Education Centre
GEF	Global Environmental Facility
GGEM	Grassroots Gender Empowerment Movement
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IREEP	Institute pour le Recherche Empirique d'Economie Politique
KfW	Kreditanstalt für Wiederaufbau, a German government-owned development bank
LAMED	LAPO (see) Academy for Microfinance and Enterprise Development
LAPO	Lift Above Poverty Organization
LARDEP	Lunia Agriculture and Rural Development
LEAP	Local Enterprise Assistance Program
MDGs	Millenium Development Goals
MFC	Mali Folkecentre
MFI	Microfinance Institution
MISS	Micro-Investment Support Services
MITAF	Microfinance Investment and Technical Assistance Facility
MODEP	Ministry of Development and Economic Planning
MoFED	Ministry of Finance and Economic Development
MRT	Mantra Research Team
NaCSA	National Commission for Social Action
PRM-SL	Peace and Reconciliation Movement Sierra Leone
PUG	Power Up Gambia
PURE	Productive Uses of Renewable Energy
REG	Renewable Energy Ghana
RESCO	Renewable Energy Services Company
ROSCA	Rotated Saving and Credit Associations
RTD4EDC	Research, Technological Development and Demonstration for Emerging and Developing Countries
SAPA	Social Action for poverty Alleviation
SELF	Solar Electric Light Fund
SJGH	Sulayman Junkung Genarl Hospital
SMG	Solar Market Garden Project
SMT	Salone Microfinance Trust
SLA	Solar Light for Africa
SNV	Netherlands Development Organization
SPA	Sun Power Afrique
STEG	Skills Training and Emplymnt Generation
UNDP/GEF	United Nations Development Programme/Global Environment Facility
UNHCR	United Nation High Commission on Refugees
USAID	United States Agency for International Development
UST	Ghana University of Science and Technology
VRA/NED	Volta River Authority/Northern Electricity District
WVP	Whole Village Project





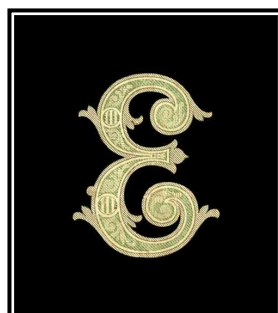
INTRODUCTION

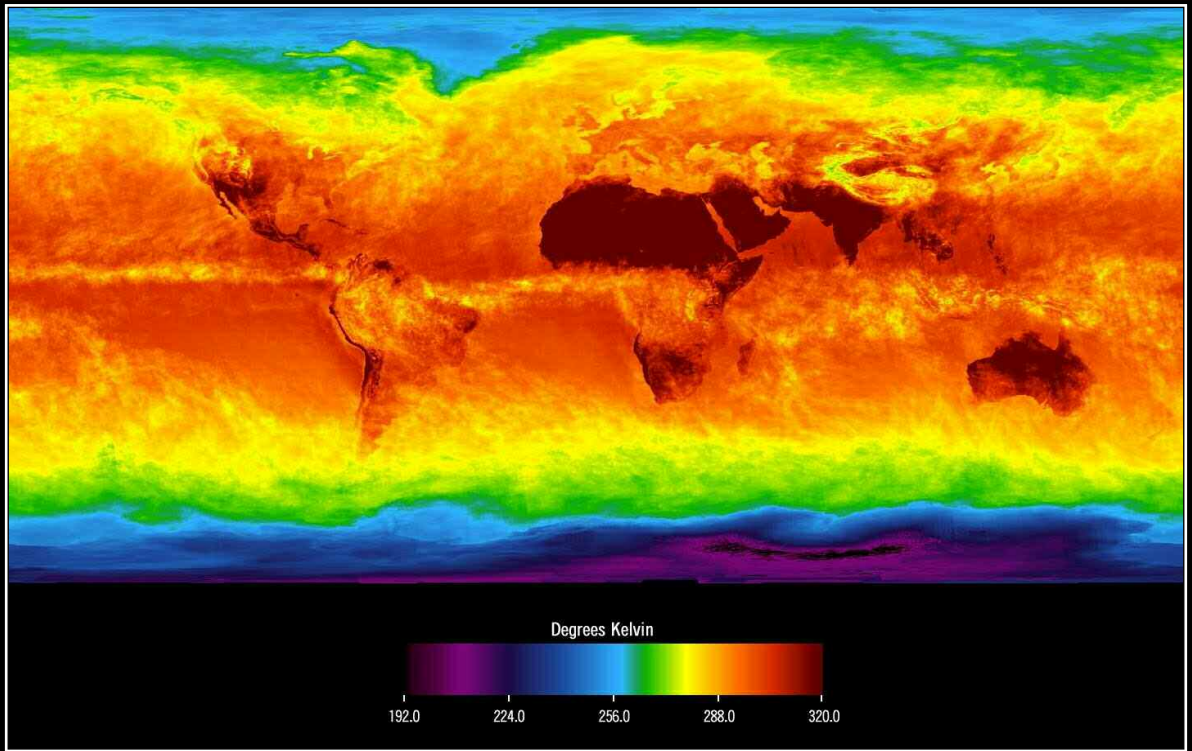


SPANDA'S MANTRA PROJECT COMBINES SOLAR ENERGY AND MICROFINANCE IN DEVELOPING COUNTRIES TO HELP THOSE IN POVERTY USE the power of the sun to start small businesses. The project's ultimate goal is to promote development in poor communities by supporting self-sufficient and sustainable activities.

By comparing the practices and results of other projects with related goals, based on the experience in the planning and structuring of the Mantra Project, Spanda has conducted the present study to select a number of projects involving solar power completed in the West African countries of Benin, Gambia, Ghana, Liberia, Mali, Sierra Leone and Togo and implemented by Environmental Foundation for Africa, Mali Folkcentre, Power Up Gambia, Renewable Energy Ghana, Solar Electric Light Fund, Solar Light for Africa and SunPower Afrique.

As the microfinance sector in Sierra Leone is still in the early stages of development because of the effects of the recent civil war, MFIs in Sierra Leone and its neighbouring countries with similar economic situations were analysed: Bangladesh Rural Advancement Committee; Community Empowerment and Development Agency; Finance Salone; Grassroots Gender Empowerment Movement; Lift Above Poverty Organization; Local Enterprise Assistance Program; and Salone Microfinance Trust.





Map of World Solar Energy Potential (NASA courtesy).

1 ~ SOLAR POWER



T

1.1 ~ INTRODUCTION

HIS SECTION OF THE RESEARCH INTENDS TO HIGHLIGHT THAT THE PROVISION OF SOLAR POWER IS EFFECTIVE IN AREAS WHERE ACCESS TO energy can be compromised by a lack of infrastructure or inefficient power providers causing blackouts, making the running of businesses more difficult. Solar power and microfinance will provide people with a better ability to build and improve their businesses.

The research seeks to advance progress on the Spanda Foundation's Mantra project by analysing approaches to the various procedures involved in completing a microfinance/solar power project. The goal is to identify successful methods as well as shortcomings of projects that have objectives similar to those of Mantra. Within this comparative analysis, information about the level of success that several projects attained are found, as well as the advantages and disadvantages of their impacts.

1.2 ~ SELECTION CRITERIA

In selecting the projects, similarity to Mantra was of utmost importance. Therefore projects implemented in the last fifteen years and completed in western African countries had been selected. In particular, projects aiming to aid development by bringing solar energy to communities in need and linking solar energy and microfinance to develop a selected area.

1.3 ~ CHOSEN PROJECTS

Based on the criteria above, projects implemented by the following seven organizations were selected:

- Environmental Foundation for Africa
- Mali Folkcentre
- Power Up Gambia
- Renewable Energy Ghana
- Solar Electric Light Fund
- Solar Light for Africa
- SunPower Afrique

Each case study introduces the project in terms of its background and goals and then highlights features related to planning, sustainability, technology, finances, advocacy, partners, challenges, implications and future opportunities for replication. None of the projects have relevant information for all of these general categories. However, it is hoped that, by having included seven case studies, they will collectively shed light on noteworthy lessons in all of the categories.

1.4 ~ OVERVIEW OF CASE STUDIES

1.4.1 ~ ENVIRONMENTAL FOUNDATION FOR AFRICA

BACKGROUND AND GOALS

The Environmental Foundation for Africa (EFA) is a non-governmental organization based in Sierra Leone. It was founded in the UK in 1992, originally operating entirely on a volunteer basis, and focusing its activities primarily in Sierra Leone. Since its founding, EFA has evolved considerably in both size and scope, developing partnerships with dozens of organizations, and has become a leading authority in African environmental preservation. EFA specializes in raising environmental awareness and capacity building at the regional, national, and international levels using "high impact" communications tools and training programmes to retain the environmental integrity of Africa. EFA undertakes a variety of projects and programmes in

raising environmental awareness, restoring degraded land, minimizing the impact of wars on the environment, and equipping thousands of people with sustainable livelihoods and sources of energy.

PILOT

The Renewable Energy Programme is among the most notable projects of EFA. It focuses on harnessing sustainable renewable energy sources in West Africa. Projects in this programme include the installation of a photovoltaic system at the WHH (Welthungerhilfe) field office in Kenema, Sierra Leone in 2008, and the installation of a hybrid-photovoltaic system at Lakka, Sierra Leone in 2008. The most significant project in the programme, however, was its pilot project to install solar energy infrastructure in several areas with a high concentration of refugees in Liberia. The project took place between January and August 2007. Given the fact that refugees are significantly more sensitive to climate change and energy shortages, the United Nations High Commission on Refugees (UNHCR) originally commissioned EFA to install solar energy infrastructure at several sites across Liberia.

The project's primary goals were to install solar power systems in health clinics and schools in Liberia that would otherwise without power, or rely on expensive and irregular sources of energy. The project also provided capacity building, in the form of EFA training students, volunteers, and members of the community in the installation and maintenance of the solar systems. This was also an integral part of the initial goals of the project.

Prior to the actual installation of the solar systems at the selected sites, the EFA held a training workshop in Tiwai Island in June 2007, holding true to the project's goals. Six electrical engineering students attended: three from the University of Liberia, and three from Fourah Bay College, University of Sierra Leone. Three project staff on Tiwai Island also attended the workshop. The training was divided into sessions on the different components of solar power systems and practical sessions, which included site analyses, fixture construction, fixture mounting, inverter installation, controller installation, and system wiring. Those who attended this workshop not only aided in the installation of the solar power systems, but also extended their knowledge to clinic and school staff regarding the use and maintenance of these systems. The training workshop was reportedly a great success, and provided a smooth transition to the actual installation stage of the project.

Directly following the training workshop, EFA and its partners reported that successful installations of electrical systems were completed at 12 sites: the J.B. Titus School, Sinje Health Clinic, Beh Town Health Clinic, Sass Town Public School, Zordee Public School, Tumaquellah Public School, Compound-su Public School, Guyan Town Public School, Foequellah Public School, Bahn Health Clinic, Saclepea Health Clinic, and Graie Health Clinic.

TECHNOLOGY

The systems installed were a combination of small (135Wp) DC systems for lighting and large (1050Wp) systems for general-purpose power. Three additional vaccine fridges were also installed with their own power systems. All building wiring was conducted by EFA and its partners.

FINANCES

This project installing solar energy technology in Liberia involved several organizations, but primarily, EFA, which planned and executed the project, and the UNHCR, which was also instrumental in planning and funding the project. The funds for the project amounted to approximately USD 20,000. Though the UNHCR provided the majority of the funding, the funds were originally seeded by a grant from Irish Aid. In addition, private donations contributed to the funds.

IMPLICATIONS

This project succeeded in achieving all of its goals. The training workshop not only provided a skilled labour force to install the solar systems, but the focus on practical applications of the technology allowed local volunteers to directly play a part in installing the technology, and the university students who attended the training sessions benefited greatly from field experience installing the infrastructure. In addition, power supplied to clinics will provide better healthcare, as the clinics had

previously relied on an unreliable, at best, source of energy. With each clinic supporting communities of between 10,000 and 80,000 each, this is a significant improvement. Schools can now operate at night, allowing a wider variety of people to gain an education, improving livelihoods. The new source of energy also allows for more flexible teaching methods.

CHALLENGES

This project, successful as it was, is not without its flaws. EFA noted that in the initial planning stages of the project, site selection was an especially difficult process. Because initial ambitions were so high, and taking into account the fact that there are no shortages of sites requiring solar energy infrastructure, EFA had difficulty choosing where to install the systems.

1.4.2 ~ MALI FOLKECENTER

BACKGROUND AND GOALS

Representatives from the Danish Folkecenter visited Mali in November-December 1998 following an invitation from the Malian President, Alpha Oumar Konare. The Folkecenter team consisted of Executive Director, Mr. Preben Maegaard, the Head of the Folkecenter Information and Training Programme, Ms. Jane Kruse, and the then-Programme Coordinator for Mali, Mr. Ibrahim Togola (who is now Regional Director of the Mali Folkecenter). During the meeting with the Folkecenter team, the President explained the government priority in the areas of education, health, and water supply. The President expressed the view that through cooperation, Folkecenter could share its know-how of sustainable development with Malian institutions and independent organizations (NGOs), as well as with the private sector (especially small enterprises). To this end, Folkecenter opened the MFC (the representation of the Danish Folkecenter in Mali) in July 1999. The MFC is an independent NGO, cooperating with the government and other NGOs to promote sustainable development in the rural areas of Mali and other West African countries.

Mali, like other countries of the Sahel, is landlocked, and faces many challenges in the field of energy supply. The energy sector is characterized by dependence on imported fossil fuels (nearly 10% of energy requirements), with the inevitable associated impact on the national trade balance, and high dependence on wood & charcoal, which together meet 90% of energy needs. This unsustainable use of biomass results in deforestation and desertification. Electricity supply is very limited; around 20% of the urban population and less than 1% of the rural population have access to electricity.

This can be contrasted with abundant renewable energy resources. On average, Mali receives 2500 hours of sunshine per year, with insulation of up to 6kWh/m² per day. The wind also has huge potential with average wind speeds in the north and east of the country of 3-7m/s. These are decentralized resources that can be exploited by Mali's largely decentralized population. Many areas of Mali will never be on a national electricity grid as population densities are too low to make it profitable, but solar and wind power gives the option of generating electricity wherever it is needed.

Following the meeting with the Malian President, the Folkecenter team had meetings with those ministers involved with the development of the rural areas, in particular:

- Ministry of Energy and Mines
- Ministry of Development of Rural Areas and Water
- Ministry of Environmental Protection
- Ministry of Health

The ministers, though concerned about the situation in Mali, were very positive towards the possibility of implementing development projects in line with the government programme for improvement of the standard of living in the rural areas.

The Folkecenter in October 1999 invited a delegation from the Malian Government. The delegation was made up of the Minister of Energy and Mines, two of his advisers, and the Director of the National Centre for Solar Energy. Future tasks of the MFC were discussed, and a firm basis for cooperation was established. The Minister expressed the wish of the Malian Government that the Folkecenter could contribute its know-how and experience to implement rural development projects in Mali.

PLAN

This project, active in 23 villages in Koumantou Municipality, seeks to improve living conditions in rural areas through installation of solar energy systems for water pumping, lighting in schools and public squares, and lighting and refrigeration of vaccines and medicines in the clinics. Local technicians are trained for operation and maintenance tasks for long-term sustainability. Local government is involved in management.

The project is being implemented in the villages of Tabakoro, Niamala and Zambala, in the Sikasso region of Mali, 200km south of Bamako. The total population of the three villages is about 4500. The MFC is working hand-in-hand with the target group to successfully complete the project, with technical support from Folkecenter in Denmark. Electrification of the schools for evening adult literacy classes, and of the clinics for improved healthcare provision, will have an added outreach, as these facilities also serve people in the surrounding villages. An additional twenty schools and clinics in the surrounding area will be installed with solar lighting. Local people work with Mali Folkecenter to install the equipment, and are trained to maintain it.

The project will act to reduce rural exodus by encouraging a diversification of economic activities, improving health conditions and the quality of life for the inhabitants.

SUSTAINABILITY

Long-term sustainability will be ensured by the sale of pumped water (at a price all villagers can afford), which will provide funds for social measures and maintenance of the solar installation. A comprehensive training programme will give the villagers the skills they need for management and repairs.

The training programme has involved construction of the Solar Training Centre in the village of Tabakoro, where rural solar technicians will be trained in installation, operation and maintenance tasks. The beneficiaries (the people of the three villages) constructed the buildings as part of their contribution to the project. The Centre will be used to train people from the twenty villages in the commune, which will receive solar lighting installations in clinics or schools as a further part of the project. Each village will supply four people who will be responsible for the maintenance of the system installed in their village, and these volunteers will receive their training at the Centre. It will be a resource where rural Malian technicians can get hands-on experience and the concrete skills needed for installation of solar systems. Trainees will learn by actually installing systems, gaining the competence necessary for future work. It will show that solar power need not be expensive (typically less than USD 1 per villager for a school lighting system), and may inspire other village communities to pay for their own installations. The Solar Training Centre will build capacity, creating a knowledge base that can be drawn on in the future, and will allow adult literacy training and improved healthcare conditions for hundreds of people.

MFC works closely with the village organizational structures, which are responsible for the operation and maintenance of equipment once it is installed. The Executive Committee is made up of responsible, respected members of the village communities and 'ressortissants' (people from the villages who now work in Bamako) so it is representative of the villages while also benefiting from the presence of highly educated people. The Executive Committee has played a pivotal role in the project, providing linkages and facilitating communication between MFC and the villagers. The Executive Committee has a long tradition of supporting development activities in the villages.

A Maintenance Committee of 8 men and women has been created in each village, responsible for working with MFC to install the equipment. MFC has provided practical training to the Maintenance Committee, in order to build the capacity and the technical expertise necessary to operate and maintain the solar systems. This training has been built up step by step over the months, with emphasis on participation and physically performing the tasks, to allow real understanding.

FINANCES

A heavy emphasis is placed on technical training to build local capacity at the village level for operation and maintenance of systems installed. Appropriate management structures are identified and developed including income generating mechanisms, which fit to the socio-environmental context, as it is essential that systems can generate enough revenue to pay for their maintenance. For example, the water that the solar system provides will be sold to provide income

for repairs and maintenance, including eventual payment of members of the Maintenance Committees. This is vital for long-term sustainability.

IMPLICATIONS

So far, solar-powered refrigeration systems were installed in three villages: Tabakoro, Zambala, and Niamala. In addition, solar-powered water pumps were installed at the three villages. Solar-powered lighting systems were also installed at maternity clinics in the three villages.

The refrigeration systems allow for the storage of vaccines and medications that are otherwise ineffective at the local ambient temperatures. The water pumps were installed at a depth of 25-27 meters, typical for this area of Mali. The lighting systems installed at the maternity clinics are extremely inexpensive over the systems' lifetime, and can last up to 20 years.

The lighting systems installed at the maternity clinics improve the quality of healthcare provided, encouraging more mothers to give birth in clinics with professional assistance. Whereas before, many women gave birth by kerosene lamps or torchlight, the introduction of the lighting systems will help reduce infant mortality rates, as well as reducing the chances of the mother dying from childbirth.

1.4.3 ~ POWER UP GAMBIA (PUG)

BACKGROUND AND GOALS

PUG is a non-profit organization dedicated to providing electricity and water to health care facilities in Gambia through the use of solar energy. Founder Kathryn Cunningham Hall spent the summer after her sophomore year of college volunteering with Organisation Crossroads Africa in Gambia. Kathryn was so moved by the effects of unreliable electricity at the Sulayman Junkung General Hospital (SJGH) that she founded Power Up Gambia to tackle their energy related problems. After the successful implementation of the original programme PUG decided to continue its operations and install solar panels for other health institutions in Gambia.

SJGH is one of five tertiary care hospitals in Gambia. It was built by the government in 2003 and now anchors the town of Bwiam. The hospital sees more than 20,000 patients annually. It has a catchment area of over 100,000 Gambians (as well as some Senegalese refugees).

SJGH relied on three unreliable generators for power in 2006. The hospital could only afford to run the generators for 8-10 hours a day, that is, if the generators were working (they were often broken, sometimes for weeks on end). They saved most of these hours for after dark when they desperately needed the lights. The few remaining hours (1-3 hours) of electricity the hospital could afford were used during the day, when the hospital was busiest. They also used the generator in emergency cases, such as a caesarean section. Generator hours would then be taken from other days. This electricity rationing, which inhibited consistent running of the water pump, refrigerators, oxygen machines, and incubators, caused many problems for health care delivery.

PUG is run by volunteers, who work closely with SJGH management and staff. Frequent communication with SJGH representatives allows PUG volunteers to assess the hospital's needs efficiently.

GamSolar, the leading solar panel contractor in Gambia performed the power requirements assessment of the SJGH.

PUG believes that the key to their success is that it started as a grass roots movement.

PUG was originally founded to provide solar panels and water pumps (108 solar panels total, 90 for electricity and 18 for operating water pumps) to solve SJGH's electricity problems. In order to achieve this goal they raised USD 300,000. In March 2009 they installed the solar panels – the biggest solar panel installation in Gambia. To insure full-time running water, they also installed 6 tracking units, which increase efficiency of solar panels and water pumps.

SUSTAINABILITY

At different phases of the project, volunteers spent several weeks monitoring implementation.

Ongoing maintenance was included in the funding analyses.

PUG chose high quality panels to ensure their long-term operation.

Currently the hospital has two maintenance personnel that take care of the panels. If they encounter a maintenance problem that they cannot solve, they contact the local installation company. SJGH pays for the maintenance costs, and PUG provides support when needed.

Since the launch of the project the hospital has grown considerably, thereby increasing electrical demands. The solar panels provided by PUG have given the hospital a significant amount of additional electricity, but SJGH still has to use its generators for part of the day. PUG has initiated a conservation campaign to save electricity. The organization is attempting to convince the Gambian government to provide an extension to SJGH's solar energy system so that the hospital can run on solar electricity full time.

ADVOCACY

The most striking element behind the organization's success is probably the versatility and efficiency of their public relations and fundraising activities.

Soon after its founding, PUG representatives began organizing fundraising events, targeting their friends, families, and communities. They also used their newsletter to encourage volunteers to organize informal fundraising events (PUG provided informational materials). These events raised both money and awareness.

Formal US Ambassador to Gambia endorsed several of PUG's official events and PUG organized charity auctions to sell the artwork of Gambian children.

The founder Cunningham held a presentation at a Rotary District Conference and later had a meeting with the President of Rotary International. As a result, Rotary donated over USD 10,000 to the SJGH project. Corporate donors (companies involved in green energy) donated more than USD 50,000.

PUG's public relations tools first consisted of quarterly e-newsletters and a highly informative website. PUG gained notice through networking and word of mouth and soon appeared in various local and national media outlets in the US and Gambia.

In September 2008 PUG activities were featured on 25 million Doritos bags in the US. Also in 2008, Cunningham was short listed for the Do Something! Teens Choice Award for her achievements through PUG. Though she did not win the grand prize, she received USD 10,000 to continue the project. This nomination gave PUG much publicity and helped the organization win national media attention in the US.

The actress Olivia Wilde has helped bring publicity to the project by raising awareness through national media.

FUTURE

After the successful implementation of the SJGH Project, PUG decided to continue its activities by establishing another solar energy project, which aims to raise USD 105,000 to provide Somita Clinic with full time electricity and running water. The electrical situation at this clinic is desperate. Six poor quality solar panels and batteries provide electricity to power minimal lighting and a water system for only two hours each day. The community approached PUG implementers as they were finishing the SJGH project. After an initial assessment, PUG accepted the project in partnership with the Village Development Committee (a group of elected individuals from Somita who meet monthly to discuss village development opportunities). This means that the project has local control and oversight, and it is evident that the villagers are self-motivated to expand their opportunities. GamSolar assisted the PUG team in assessing the current and future needs of the clinic and determined that the clinic needs 15 panels to be fully operational.

1.4.4 ~ RENEWABLE ENERGY GHANA

BACKGROUND AND GOALS

This project was a joint initiative of the United Nations Development Programme/Global Environment Facility (UNDP/GEF) and the government of Ghana that aimed to advance the Ghanaian government's goal to supply every community in Ghana with electricity by 2020. The project involves several national and international partners and was

designed to empower local communities with renewable energy resources and boost economic activity. Launched in April 1998, it was supposed to establish a Renewable Energy Services Company (RESCO) – planned, in the future, to privatize – within the state-owned electricity provider Volta River Authority/Northern Electricity District (VRA/NED), which is located in the Mamprusi East District of north-eastern Ghana. RESCO was to provide electricity to off-grid communities for various uses, including economically productive ones such as farming and food processing (agriculture is the main activity in the region) and making handicrafts. The electricity services were to be provided via free-standing photovoltaic (PV) units and, in case of larger communities, a local low-voltage mini-grid employing PV/diesel units. Service fees collected from the community were planned to be invested in the growth of the company and the sector.

~ Project Site	Ghana (Manprusi East District)
~ Planning/Development	UNDP/GEF
~ Implementing Agency	Volta River Authority's Electricity Department
~ Executing Agency	Government of Ghana Ministry of Mines and Energy
~ Starting Date	April 1998

Beside the project's main goals to boost socioeconomic development and improve public health and education, the project also sought to stimulate the new PV industry by having RESCO sell products such as small power tools, lights, energy-efficient refrigerators, sewing machines, and TVs. Another goal of the project was to reduce pollution.

FINANCES

The budget for the project was US\$3,131,000. This comprised grants from UNDP's Global Environmental Facility (USD 2,531,000), the Ghanaian government (\$500,000), and the United States Department of Energy (USD 100,000).

ADVOCACY

Community outreach was planned to be done via information and marketing materials to inform people in the pilot region about the project. Information materials designed to inform people on renewable energy resources including written materials, CD-ROM's, videotapes and relevant software. Outreach was done also via partner organizations participating in or supporting the project. Public communication planned mainly through press releases for TV, radio and newspapers, etc.

PARTNERS

Besides UNDP/GEF, Ghana government, VRA/NED, the organizations that were involved directly with the planning and implementation of the project, REG also established connections with the US Department of Energy – which provided funds, technical support, and training to the project – Ghana's University of Science and Technology (UST) and Italy's University of Reggio Calabria supported the adaptation of the products for the Ghana village market, and NGOs.

CHALLENGES

There were no mechanisms for market aggregation for renewable energy products and services. The project aimed to build the mechanism to stimulate private sector supply of services and goods (electronic ballast-equipped fluorescent lamps, battery charge controllers, structural materials, etc.)

Ghana's commercial banks are highly reluctant to lend to the private sector for solar energy systems because they are suspicious about the repayment capacity of the beneficiaries and not being properly informed about the advantages of solar energy use. UNDP had to link banks and beneficiaries and mediate the situation in order to build trust between banks and beneficiaries of solar panels.

The renewable energy market is underdeveloped in Ghana and lacks basic rules and regulations. Institutional and legislative framework for the renewable energy based market is not set up and was a major challenge.

There were no educational programmes, trainings, or courses related to the solar energy field. A campaign to inform local communities about solar energy was designed together with local information centres. There is a lack of information and experience with renewable energy based technologies.

Taxes on imported equipment raised the cost of solar installations (10% duty and 15-17.5% sales tax on solar products, including PV modules at 17.5%). The project planned to request that the Government remove or lower these fees. These taxes mean an increase of the overall price of the installation for the final users, lowering the attractiveness of solar energy use.

Recovery of capital and operating costs were a barrier to sustainability. To support sustainability, the electricity services revenues from the villages had to go into a revolving fund for further local expansion of the programme.

Due to the fact that the government is subsidizing the grid electricity it did not motivate the target market to switch to the solar energy. Designers of the project proposed to lift the subsidies for the grid electricity. As a result this project was redirected under the umbrella of the government policy of electrification of the country.

The project was supposed to develop strategies to overcome these barriers in partnership with local actors.

IMPLICATIONS

The project did not accomplish its goal of establishing RESCO. Technicians installed the PV panels, but they did not meet the agricultural demand. Design and installation of additional systems was costly, and the community did not support it.

A positive outcome of the project was that it improved already existing electricity services. Some people bought PV panels for non-farming purposes, such as powering goods shops and petrol stations. The project implementers also installed PV panels in some schools and hospitals. The project experienced major delays due to bureaucratic procedures related to importing.

An evaluation of the project concluded that the implementation of such projects should be accompanied with other developments on the solar energy market in the country at the same time. The evaluation team suggested that a certain market of private producers already existed but this was neglected by the implementing agency.

1.4.5 ~ SOLAR ELECTRIC LIGHT FUND (SELF)

BACKGROUND AND GOALS

The project began in 2006 when Kalalé native Mamoudou Setamou, realized that his remote district had little hope of being included in Benin's energy grid. He approached Solar Electric Light Fund (SELF) to bring solar electricity to Kalalé.

SELF is an organization that aims to bring solar power and wireless communications to the 25% of the world's population who live in "energy poverty," a state in which there is insufficient access to clean and efficient energy.

At its inception, this project aimed to equip each of the Kalalé district's fortyfour villages with solar energy that the villagers could use for a broad range of purposes, including powering schools, health clinics, water pumps, street lights, and internet. SELF denominated this extensive electrification goal the Whole Village Project (WVP).

After SELF conducted an on-the-ground needs evaluation it was clear that Kalalé's top priority was food security. Thus, SELF decided to first dedicate its efforts to bringing solar-powered drip irrigation systems to the fortyfour villages. This sub-goal, which SELF titled the Solar Market Garden Project (SMG), intended to increase the agricultural production, especially during the dry season, of these villages, thereby boosting both the revenue and nutritional intake of villagers.

SELF turned to Professor Dov Pasternak, a drip irrigation specialist for the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), for guidance. Because Pasternak's "Africa Market Garden" originally employed diesel generators, SELF then engineered a 2.1kW solar electric energy source to power the pumps. Then SELF partnered with one of Kalalé's local organizations, Association pour le Développement Economique Social et Culturel de Kalalé (ADESCA), in order to pilot the SMG project in two Kalalé villages, Bessassi and Denkassa. At this point, the pilot was designed as a two-year evaluation, after which the programme would be assessed, honed and extended to Kalalé's remaining fortytwo villages.

With the intent of making use of already-in-place group infrastructure, SELF chose pilot villages in which women's agricultural organizations were established. Furthermore, to compare the effectiveness of surface pumps to groundwater pumps, SELF chose one village that drew its water from a stream using a surface-mounted centrifugal pump and another village that acquired its water from a 25m borehole. Each drip-irrigation system is shared by a group of agricultural women made up of 30-35 members, each of whom tends her own 120m plot. Each group also has plots that they farm collectively in order to fund joint expenses.

In addition to utilizing established women's agricultural groups, SELF implementers took local cultural beliefs into account while working on the project. For example, technicians constructed and installed a metal-free intake system because Kalalé natives consider crocodiles sacred and pay homage to their habitat by keeping the water metal-free.

Project implementers installed complete solar-powered drip irrigation systems in both pilot villages and trained locals so that they could self-sustain these systems. Two years after installation, the pilot project was evaluated and thereafter work was begun in the other villages.

SUSTAINABILITY

TRAINING - The Stanford report states: "To promote technical sustainability, the local community development organization hired a project team (director, solar technician, and agricultural technician) to oversee installation and maintenance, to facilitate operations, to provide continued training for farmers, and to lay the foundations for project expansion. The impact of having highly educated local staff members eager to work long-term on a project in their home district cannot be underestimated." It continues, "Additionally, the long-term commitment made by project implementers has served an important role in technical sustainability. Whereas this commitment is relatively low-level, in that all daily operations and maintenance are managed locally, SELF and ICRISAT have continued to consult with the local development organization and project team. This has helped connect the project team with suppliers and facilitate inputs purchases, as well as to help gather information about prices in local and regional markets that the team and farmers can use to generate a crop calendar for maximum profit."

The establishment of the project team facilitated the training of local technicians throughout the installation process. Stanford's report states, "local masons learned to construct and repair the large concrete reservoirs, pump mechanics and electricians learned to install and monitor solar-powered pumps, and the farmers learned to use and care for the pumps, drip irrigation lines, and filters." Additionally, ICRISAT professionals visited the sites numerous times to teach farmers about irrigated vegetable production, pest management, seed multiplication, and crop selection and marketing.

MONITORING

The monitoring involved in this project can be separated into two types. First, Stanford researchers did extensive monitoring through surveys. The second kind of monitoring was that done by SELF. In June 2009, SELF's executive director Bob Freling visited the two villages to assess their progress. He noted that the people there, women farmers as well as other villagers, were better fed than they were prior to the installation of the drip irrigation systems and that "the women are earning an extra USD 7.50 per week from the sale of fresh produce at the local market." He also noticed a new sense of pride among the women, who, because of the surplus of produce that the irrigation systems allowed them to harvest, were able to sell foodstuffs at the town market. Furthermore, the village women were motivated to embark on additional profitable business projects.

TECHNOLOGY

This drip irrigation system brings water and fertilizer to the plants' roots. The solar-powered pumps save labour by eliminating the need for villagers, usually females, to fetch water by hand. In this system a photovoltaic panel powers a water pump, which depending on the source of the water, is either above- or under-ground. The water then flows into a reservoir, in which it is distributed by gravity to a low-pressure drip irrigation structure. As the pump works only during day hours, there are no batteries involved. Technicians fit pumps, reservoirs and fields according to local conditions of water

availability and evapotranspiration. The system is self-regulating in that on clear, hot days it pumps more water than it does on cloudy, cool days. It is able to work this way because both pump speed and evapotranspiration depend on solar radiation.

FINANCES

This project won USD 100,000 start up money from the World Bank Development Marketplace Competition (DMC) 2006. SELF acquired additional funding from individuals, family foundations, and private foundations. Fund donations of this type ranged from USD 5,000 to USD 25,000. A few examples of funders are Body Shop Foundation, Conservation Food and Health Foundation, International Foundation, and Ruth & Harold Launders Charitable Trust.

The total amount of the expenses for the first two years was USD 286,406. Major costs included equipment, training, farming, expertise, and borehole survey and drilling. The villages did not pay for the solar-powered drip irrigation systems, however the women's groups did supply the agricultural labour and now they now also pay for system maintenance.

SELF expects future costs to decrease for three reasons: i) purchase larger quantities of equipment; ii) solar energy gains popularity; iii), larger amount of equipment received from donors. The budget for 2010 was USD 242, 946.

ADVOCACY

SELF representatives have advocated the project to the public through several means. First, SELF Executive Director blogs about this project. The research published by Stanford University, confirming the profound positive impact of the project, contributed to its notoriety. Finally, the project was covered by several videos, the most notable of which is Jean-Louis Remilleux's production as part of the series *Earth from Above: The End of Oil*.

PARTNERS

The Ruth and Hal Launders Charitable Trust posted an article online that details SELF's partnerships in this project. The text reads: "In addition to working with its local partner ADESCA, SELF has established several invaluable partnerships that have strengthened the project, helped attract new resources and increased the organization's capacity for scaling up the project. Most importantly, the International Crops Research Institute of the Semi-Arid Tropics (ICRISAT) has been actively involved in project implementation (e.g., agronomic expertise, reservoir and drip-system design, and training and capacity-building for the women farmers) and impact evaluation (e.g., facilitating data collection)."

As mentioned above, SELF has partnered with Stanford University's Program on Food Security and the Environment for project monitoring and evaluation. Because this study will i) help define, both quantitatively and qualitatively, the potential of solar electrification in improving livelihoods in the poor, agriculturally dependent communities of rural Africa, and ii) develop tools and methods applicable to other technology-based interventions in the developing world, we anticipate high interest in the results from the development community at-large. Other partners include: the Institut pour la Recherche Empirique d'Economie Politique (IREEP), which maintains a network of trained enumerators capable of organizing and executing surveys and interviews around the country. IREEP enumerators helped finalize the baseline survey instrument, translate it into local languages, and administer the questionnaires; the Songhai Center, a centre for training, production, research and development of sustainable agricultural practices in Africa; SNV – Netherlands Development Organization provides capacity-building services to local organizations and has helped ADESCA and the women's collectives to organize legally and to register with the government.

CHALLENGES

Stanford researchers faced some challenges in collecting data from the villagers: low education and literacy rates made surveying difficult; in addition, fear of theft caused many of the women in the agricultural groups to be initially reluctant to report their market profits to researchers. However, project implementers eased these fears by encouraging the groups "to formalize their land holdings through the Mayor's office, to open accounts at the local agricultural bank, to concretize their group structures, and to register as independent NGOs in Benin." Reporting has improved as a result of

these efforts, but close monitoring remains crucial. Implementation experienced delays because SELF found it vital to “follow the lead of local partners and work with them to increase their knowledge and ability (e.g., in crop selection).”

Furthermore, sporadic funding has prevented SELF from proceeding with project expansion as fluidly as originally planned. Additionally, project implementers discovered that they needed to put more effort than initially anticipated into the drip irrigation component of the project so that they could be sure that it would have lasting success. Finally, SELF had difficulties in monitoring markets.

According to the Executive Director of SELF, two possible uncontrollable challenges are natural disaster and political instability. Freling also notes the threat of inter-village rivalry, but says, “We have made a public commitment to bring this technology to all fortyfour villages in the district; so far, the others are patiently waiting.”

IMPLICATIONS

Social: in terms of food security the results appear encouraging. Households of treatment villages saw an increase in per capita daily consumption expenditure (CE) in comparison with households in control villages.

Stanford researchers conducted a survey among various villagers across the sample to gauge the ability of households to meet food needs. Using the information they gathered, researchers rated the level of food security in these households on a scale of zero (thoroughly capable of meeting food needs) to one (completely incapable). In comparison to times prior to irrigation installation, project beneficiaries were 17% less likely to have a score of zero. While the consumption of vegetables increased in all villages in the sample, treatment villages saw a greater increase than control villages.

Stanford researchers also indicate that there is reason to believe that SELF’s SMG project can affect an increase in school enrolment rates among village children. Survey results show that prior to irrigation installation 4% of farmers would put their earnings toward paying for their children’s education, whereas this number rose to 22% one year after installation.

Economic: the Stanford study found SELF’s solar-powered drip irrigation system preferable to another type of irrigation system that rural villages of the Sudano-Sahel commonly use, namely a system that is powered by a liquid-fuel engine-driven pump that runs on gasoline, diesel, or kerosene. These pumps are attractive because they have low initial costs. An investment analysis of a surface solar-powered pump and a liquid-fuel pump across various solar panel and fuel prices shows that, especially when fuel prices are relatively high, the solar-powered pump is cost-competitive, even when solar panel prices are relatively high. When solar panel prices are lower, as would be expected in projects larger in scale than SELF’s pilot, solar-powered pumps are cost-effective.

Stanford’s study mentions that high upfront costs of solar-powered pumps mean that groups are more likely than individuals to invest in this technology. The research states:

“While group-based systems may suffer from free-riding, they also provide mechanisms for risk-spreading, access to capital (through group-based loans), economization of input purchases and marketing expenses, the ability to negotiate land and water rights, and knowledge-sharing. Whereas individual-based drip irrigation programmes often report high rates of disadoption, group-based PVDI [solar-powered] systems may provide the stability and institutional support necessary for the extremely poor to invest in production of high-value crops.”

Though this type of irrigation system has high initial costs, the expenses could decrease if a local supplier were established and/or if purchasers chose to buy lower-quality, shorter-lifetime parts. Lower overall costs would increase the chances that an individual could afford solar-powered irrigation.

ENVIRONMENTAL

Stanford found that solar-powered drip irrigation can increase water security and, as opposed to liquid fuel irrigation, has the advantage of emissions-free pumping power. To achieve these effects however, technicians must fit installation to local conditions. So, for areas where the pump is above ground, they should install solar-powered systems only if there are adequate water resources year-round. For submerged pumps, technicians should take into account ground-water resources. In regards to carbon emissions, each SMG saves 0.86 tons of carbon emissions each year.

Stanford’s research concludes, “solar-powered drip irrigation can provide substantial economic, nutritional, and environmental benefits to populations in the Sudano-Sahel.” Still, the study mentions some caveats. It states that SELF’s

work included not only installing the irrigation systems, but also effectively managing the project holistically. Project implementers must be devoted, in terms of financial and technical support, to assisting treatment villages for many years. In the meantime, the hope is that regional manufacturers and local suppliers be established.

FUTURE

Though this pilot seems to have been a success, solar-powered drip irrigation systems have yet to be installed in the remaining forty-two Kalalé villages. The next phase of this project consists of installing SMGs in six more villages by 2013, with two being installed during 2011. When these six additional SMGs have been installed, SELF plans to proceed to the remainder of Kalalé, first with a phase in which they expand to ten more villages and thereafter implementing the final expansion phase in the last twenty-six villages. SELF, though, reports that this plan may change as the project unfolds. If funding permits, they hope to accelerate their plan.

1.4.6 ~ SOLAR LIGHT FOR AFRICA (SLA)

BACKGROUND AND GOALS

Retired Episcopal Bishop Alden Hathaway founded SLA in 1997 to provide light for the Mustard Seed Babies Home, an orphanage in Hoima, Uganda. SLA developed into a non-profit Christian organization with the aim of educating the public about the advantages of renewable energy for the impoverished communities throughout the world and to transform lives and empower the people of Africa by providing light and energy using the natural power of the sun. SLA now operates in a number of African countries including Ethiopia, Ghana, Liberia, Rwanda, Tanzania, Sierra Leone and Uganda. SLA carries out its projects through Christian missions and by involving local communities. SLA's "two-track diplomacy" and its Power Partnerships are examples of this.

SLA's "two-track diplomacy": Annual Youth Missions involve American and African high school and college-aged young people living together for three weeks as they work in teams installing solar units to promote electrification and education. The American missionaries raise funds to take part in the trip. Donations fund the African volunteers/missionaries.

SLA's Power Partnerships: professionals and students partner with African citizens to provide solutions for various projects in eight countries.

TYPES OF PROJECTS

SLA has managed to make a considerable difference in the lives of many people in Africa. Through a number of projects like the Village electrification programme, the Sierra Leone International Mission School project, that aimed to repair and relocate the existing solar array and assist SLIMS with increasing its solar power supply by installing additional solar power panels, water projects to provide solar-powered pumping systems and clean water for the communities and trying to have an overall effect on the health and economic stability in the communities it works in.

So far SLA has provided light and power to more than 2,550 facilities such as medical clinics, orphanages, schools, churches and private homes in rural African regions; it provided light at night to aid economic development, increase productivity and enable students to study in the evening, leading to improved student performance; it has also facilitated young people's access to solar-powered computers and televisions in more than fifteen schools, providing them with a global education; it has replaced kerosene lanterns, which emit noxious fumes, with a clean energy source to decrease environmental and human degradation; and provided clean water to three hospitals and an orphanage in Uganda. SLA enabled access to diagnostic tools that require batteries, recharging or outlets, refrigeration of vaccines, and the operation of laptops to monitor case loads and provide internet access.

SUSTAINABILITY

SLA has engaged in post-implementation monitoring in order to discover whether solar-powered lighting has improved the performance of students in school. Between 1999 and 2003 the organization recorded the grades of students at St Cecilia

Primary School in Uganda. SLA saw an increase in the scores. The organization works with locally trained solar contractors such as Maumer Coomber, which was involved in the SLIMS project. This ensures the reliable maintenance of the solar energy systems and the uniform installation of solar projects.

TECHNOLOGY

The new 1.3kW solar array provided almost 40 amps of energy - more than double the amount of energy the previous system provided. To ensure the safety and most efficient functioning of the systems, the following technical criteria must be met:

- Systems are hard-wired and affixed permanently – no wind-up or mechanical generation
- Systems are secured to rooftops and batteries are locked to prevent theft
- Systems are re-charged automatically each day the sun shines, with power available at the flick of a switch
- For each project, systems are sized for the anticipated load requirements; they are customized to fit the unique requirements at each facility – this allows for a more efficient delivery of power to answer specific facility needs
- Each solar electrification system includes 6-lights, switches, an electrical outlet and battery backup.

FINANCE

Donations are used as follows:

DONATION	PROVIDERS
USD 25	Solar-LED lantern to a village family
USD 100	Lights and a socket for 1 classroom
USD 500	A refrigerator to a health clinic
USD 750	Electrification to a commercial installation (recipients typically provide the other half through matching funds)
USD\$ 1,000	Assistance for an African Youth Mission participant
USD 1,500	6-lights and one socket to a school, orphanage, or clinic
USD 30,000	Full electrification, internet, and video conferencing to a school

PARTNERS

SLA has many programme partners in the form of schools and churches in the US and many funding partners such as Aid for Africa, government agencies, Christian church outreach projects, fraternal organizations, corporate donors, energy and environment organizations and individual donors. In the SLIMS project, the funding partner was Sterling Planet, Inc., and the programme partners were the First Baptist Church of Alpharetta representing the Atlanta International Fellowship. As SLA is a faith-based organization, it is easily able to make use of the strong and extensive existing faith networks for funding and support.

FUTURE

Research is being made into the starting of another solar-powered water pump project in a village 90 miles East of Freetown.

1.4.7 - SUN POWER AFRIQUE (SPA)

BACKGROUND AND GOALS

Sun Power Afrique (SPA) is an organization founded to try to alleviate the problems of not having access to a reliable source of constant electricity in Togo. Currently 4 million people in Togo, about two thirds of the population, live without access to electricity. The majority of the population burns wood, charcoal, other biomass and kerosene for energy. Togo imports 85% of its power supply from Ghana and distributes it through the state electricity company, Compagnie Energie Electrique du Togo (CEET). MFIs play an important role in Togo by stimulating economic development, however a major

obstacle for many MFIs is the lack of reliable energy. Frequent power outages, lasting anywhere from 15 minutes to 48 hours, disrupt daily operations and create inefficiency.

SPA's objective is to provide reliable and renewable solar power to MFIs in West Africa. With consistent electricity, MFIs can streamline operations to better manage and disburse loans, reduce overhead, maintain access to financial software programmes, implement a centralised information management system and communicate with microfinance communities worldwide. Additionally SPA's programmes aim to address problems of unemployment and slow economic development in many African countries by hiring and training local installers and allowing for infrastructure growth through consistent power.

SPA is currently in its first year of operations and is run by the founder and executive director. She is helped by a group of volunteer solar system designers and trainers. For the next two years SPA will be based in Pennsylvania, and aims to move its operations to Togo by 2013.

PLAN

SPA has developed a detailed business plan, which outlines how the project will link microfinance and solar energy provision. This involves the initiation of a 'Solar Loan Program' that allows MFI clients access to loans for solar system installations. Based on their market research and interviews on the ground, they have developed two products for their target market: The Solar Loan 1 and The Solar Loan 2. Both loans include design, delivery, installation, and long term financing options of solar power systems. Unlike the Solar Loan 2, the Solar Loan 1 retails at 50% below cost to ease market adoption and is exclusively targeted at microfinance institutions that take a loan from a third-party donor with the intent to use the capital to install a solar energy system to increase the capacity of the MFI. Solar Loan 2 is targeted at small business clients who take out a loan from their microfinance institutions with the intent to use the capital to install a solar energy system to increase the capacity of the small business.

To reinforce existing MFIs loan management systems, ensure successful repayment and bring solar energy to Togo in a way that will make it affordable for MFIs, SPA will base its payment schedule on the model that many MFIs use. SPA's target users are managing directors of microfinance institutions with over 10,000 members in Togo and microfinance clients in Togo.

PILOT

The pilot project was implemented in five months, between March and July 2009. During this time SPA raised USD 25,000 to cover training, outreach and all other costs except equipment. They ordered the required equipment including the solar panels and installation equipment and shipped them to Togo. SPA started training local Togolese technicians in French in the maths and physics of the solar installations, battery maintenance and troubleshooting. They installed all the equipment successfully and unveiled them in the beginning of July 2009.

As SPA is presently preparing for three more installations in December 2011, the pilot appears to have been a success. SPA has developed new partnerships and is implementing a strategic plan to continue fundraising and expanding the project in line with its highly developed five-year business plan.

SUSTAINABILITY

To ensure sustainability of installations and the overall mission, SPA has implemented a number of mechanisms. It will continue to design and troubleshoot the solar systems until a qualified solar workforce is fully developed in Togo, not only for installation but also for system design and maintenance. SPA will work closely with on-the-ground technicians to achieve this goal.

SPA trained FECECAV's Local Solar Construction Crew at FECECAV over the course of the pilot solar system installation. This training consisted of presentations about maintenance, troubleshooting, and the physics of how the solar modules and electricity work. SPA and, eventually, the newly trained Local Solar Construction Crew will be available to maintain the solar systems belonging to the MFIs and their clients.

When the project has started to grow, SPA will measure success by the number of micro-solar-loans granted, jobs created in the new solar industry, national reductions in emissions and environmental degradation, and the spread of solar knowledge throughout the region and continent.

TECHNOLOGY

SunPower Builders and its associates, SPA and, increasingly, its field technicians, will design a solar system and procure all components from US- or EU-based manufacturers.

To ensure safe delivery of goods SPA will be responsible for shipping via Maersk, Damco, the Port of Lomé and on-the-ground contacts.

SPA designed an innovative PV system that reduces FECECAV's load significantly, not only encouraging responsible energy consumption but also requiring a smaller system that will be grid-tied and use the solar PV as backup.

FINANCE

SPA currently funds itself through grants, individual donations, benefit events, etc. Now that the pilot project has finished, they are applying for a grant from the Draper Richards Foundation, which, along with other funds, would allow SPA to move beyond the pilot stage into their 10-year scalability plan. They also claim to have had some excellent leads with global solar companies and donors to top off the budget in time for the pilot.

Funding has been and will continue to be done in the three following phases:

~ Phase I:

June 2008 – June 2010, developed final product: USD 20,000 (USD 8,000 from benefit events, \$12,000 from individual donors)

Conducted in-country MFI needs assessments, prototype and market research

Initiated preliminary logistics and connections on the ground in Togo

Received a government license to operate as a non-profit organization in Togo

Interviewed and recruit qualified installers and technicians

~ Phase II:

July 2010 – July 2013, pilot: USD 80,000 (grants, individual donations and residual funds from Phase I)

Purchase, pack and ship materials

Finalize the movement of materials through the ports to the installation sites

Train qualified installers (first team)

Install 5kW Solar Loan 1 at MFI site

~ Phase III:

August 2013 onwards, roll out product: financing from retained earnings

Plan to roll out the Solar Loan 2 product to microfinance institutions' small business clients on a large scale, beginning with clients of one MFI in year one, and expanding over a five year period to clients of three MFIs, all of which have similar electrical power requirements. SPA ran a five-year financial forecast for the organization and estimated that SPA will break even at the end of year 3. The five-year projections include the three-year Phase II incubation stage.

To create the five-year forecasts, the following key assumptions were made:

~ Sales Projections in KW

Unit Sales in KW	2010	2011	2012	2013	2014
Solar Loan 1	5	8	17	18	12
Solar Loan 2	4	11	25	60	145

~ Cost of 1kW Sold in US dollars

Average unit cost/KW (USD)	2010	2011	2012	2013	2014
Solar Loan 1	6000	6000	6000	6000	6000
Solar Loan 2	6000	6000	6000	6000	6000

~ Pricing for 1kW in US dollars	2010	2011	2012	2013	2014
Solar Loan 1	3000	3000	3000	3000	3000
Solar Loan 2	10000	10000	10000	10000	10000

CASH CYCLE AND BAD DEBT

SPA plans to pay its suppliers on average within 30 days and receive payment from its customers on average within 90 days. SPA's network of lenders (MFIs or donors) provide the financing options to clients, therefore SPA does not anticipate any bad debt.

SALARY AND HEADCOUNT

SPA does not have a fixed headcount on its books. It maintains low overhead, as the Executive Director and US-based solar consultants volunteer their time for the next 1-2 years. It is expected that in year three, one of the members of the team will be working full-time on the project.

The five-year forecasts also looked at cash flow and net income.

Bill of materials:

SOLAR CELL ~ USD 25 each

SOLAR MODULE ~ USD 1,500 each

WIRE, CONNECTORS & CONDUIT ~ USD 10 per foot

RACKS AND RAILS ~ Custom, locally-grown and crafted bamboo and teak racking system: USD 20 per foot

DISCONNECTS & SERVICE PANELS ~ USD 250 each

INVERTERS ~ Convert DC Solar Energy to AC Electricity: USD 2000 each

SHIPPING AND TRANSPORTATION ~ East Coast US to Port of Lomé, Togo; Trucking to MFI site: USD 8000 each

SOLAR TECHNICIANS TRAINING IN TOGO ~ PV Training for 2 foremen and 4 apprentices: USD 15,500 each

PUBLIC RELATION

SPA invited the Director of the National Microfinance Committee and several political contacts to the system commissioning. Also, before the pilot began, SPA attained a panel for Microfinance Goes Green at The Chicago Microfinance Conference (CMFC) to discuss why renewables, microfinance, the environment and international development are inherently linked, and where this momentum will lead the microfinance community in coming years. Further, Penn State Great Valley chose SPA to participate in a Social Entrepreneurship course in which graduate students worked with Costanza and her father to develop effective non-profit marketing strategies and the beginnings of a real SunPower Builders-SPA hybrid business model. Finally, SPA keeps a very informative, regular blog (<http://www.kirawithoutborders.blogspot.com/>), and has a highly developed website.

PARTNERS

SunPower Afrique will partner with SunPower Builders and MFIs such as FECECAV in West Africa. SPA will also work with Togo's National Microfinance Committee and Professional Association of MFIs to promote national strategies. Other actors include a qualified team of electrical technicians on the ground (the Local Construction Crew), chosen for their knowledge and focus on renewable energy. Once in the country, SPA will exclusively use local labour, first hiring local trucking companies to ship from the port to the site, then using its trained Togolese electrical staff to perform the actual installation.

SPA will make use of existing MFI networks and will use alliances with donors, MFIs, and local installers to meet the needs of millions of people for the improved power services necessary for education, good health, and entrepreneurship.

Outreach will be done through channels already in place: FECECAV, the National Microfinance Committee and other MFIs such as FUCEC. Along with this outreach, SPA will expand of the workforce development programs in Togo at universities and training centres and work with other international organizations doing similar work, for example,

India's SELCO Solar. This will be an essential step towards creating a market that can continue to thrive as the support of donations in the early stages are phased out.

CHALLENGES

SPA's main challenges came from their inexperience of working in Africa. The general level of education in the country was a surprise to them and they struggled with local corruption, political instability and lack of infrastructure during the set up of the pilot project.

IMPLICATIONS

The expected and observed outcomes of SPA's work are detailed as follows:

- The initial beneficiaries of this initiative are MFIs and their clients. MFIs development and communications strategies (some as simple as installing a fax machine or internet connection) will be achieved. Hundreds of new loans can be granted with increased efficiency. The morale of MFIs employees will be boosted with the opportunity to work an efficient 8-hour day.
- The second largest group of beneficiaries stands to be those who become employed or start businesses in the new solar industry, their families and their communities. As a new solar industry is developed, more jobs will be made available in this area and there will be more opportunities for technicians to learn new skills.

Tens of thousands of dollars and carbon emissions would be saved by using solar power instead of generators, kerosene and charcoal. Every MFI or small business that currently uses a kerosene generator will save 1.3 tonnes of CO₂ emissions per year and generate millions of dollars in social return from saved income and increased productivity over the twenty-five-year lifetime of the product.

As mentioned in the introduction, the hydropower from Ghana is becoming less and less reliable due to desertification and periodic droughts. This will be less of an issue for Togo if it can rely more heavily on solar power. Dams for hydropower are also harmful to natural habitats so if SPA could spread the use of solar power into other West African countries, fewer dams would need to be built. Also, as dependence on Ghana for electricity diminishes, electricity will be supplied more reliably as dependence on the unreliable national grid decreases, and tensions between the two countries will hopefully be less stressed.

FUTURE

SPA plans to eventually expand from the niche in Togo to the rest of West Africa, focusing first on establishing a dominant market share in small-scale solar power systems in Togo, before targeting more competitive markets.

The potential for this project's success is also very large as there are already a number of hardware stores selling some of the solar equipment in Lomé. The general consensus is that the Togolese people are very optimistic and hopeful about the advantages of solar power. The government is also largely in support of introducing more solar energy into the country, for example by allowing solar equipment to be imported tax-free into Togo.

1.5 - ANALYSIS OF CASE STUDIES

The following section outlines the most relevant lessons learnt from the previously overviewed projects. These analyses are categorised into 'successes' and 'shortcomings' to detail which project aspects constituted good practices and which aspects proved problematic or were overlooked. The successes and shortcomings are further sub-categorised to highlight which aspects were 'common' to at least three projects and which were 'specific' to just one or two projects. Common successes and shortcomings are lessons that must be targeted as closely as possible as they are likely to be fundamental to the project's success or failure. Specific lessons are ones that should be kept in mind but may not necessarily be fundamental to Mantra's success.

1.5.1 ~ SUCCESSES

1.5.1.1 ~ COMMON

PARTNERSHIP

All of the projects benefited from having strategic alliances with certain partner organizations and businesses for funding and management assistance. These partners included, among others, commercial organizations, government departments, international charity funds and local development organizations.

These partnerships have allowed the projects to be more operationally effective. For example, local organizations have helped to identify on-the-ground needs and issues, such as food insecurity, rural exodus issues and women's empowerment, in order to determine the most practical application of solar power, e.g. lighting, water pumping, refrigeration. Of note is the fact that the projects with strong programme partners did not suffer from financial short-comings. It also appears, from a number of these projects' experiences, that it can be useful for the government to be involved. This provides the project with access to a higher level of planning and implementation and therefore perhaps more opportunities to expand the project to a larger area should the pilot projects be a success. However, the amount of bureaucracy that comes with government involvement must also be taken into account. However, the validity of this assumption is presently unknown, as the respective projects have not yet progressed to such a point.

A number of projects also utilised the assistance of technical partners such as solar power companies and university researchers. These partners were often crucial for project implementation and training. Local contractors and technicians were also useful partners as they helped to assess the electrical requirements of the project and allowed for uniform installation and maintenance. For a number of the projects, local contractors and development organizations have proven to be useful sources of information and assistance when unexpected logistical and legislative problems have arisen.

Having a firm base for cooperation in the target region has also been very useful in the case of a number of projects. For example, in some cases the project director and/or founder has visited the target area(s) and developed strong, reliable local contacts and gained first-hand knowledge of the issues to be targeted. This proved to be a useful source of knowledge and contacts and made for more effective PR and fundraising and lower operational costs.

EVALUATION OF NEEDS AND TARGETING THESE EFFECTIVELY

SPA and MFC had 5-year business plans detailing specific objectives and intervention areas to meet specific needs, e.g. MFI electrification, agriculture, rural exodus, women's empowerment, food security, which was conjured after on-the-ground needs evaluation.

TRAINING AND MAINTENANCE (CAPACITY BUILDING)

Almost all projects worked on training up a local solar power installation and maintenance crew to promote long-term sustainability.

In order to promote the proper maintenance of the solar power systems, a number of projects set up a maintenance committee consisting of local volunteers who had undergone training in solar panel installation and maintenance. This training was often carried out by local technicians and/or technical programme partners. This helped to maintain the systems, as well as to build the capacity of the local population by providing people with new technical skills and expertise, increasing the skilled labour force. In some cases there was the possibility of creating many new jobs in the solar power installation and maintenance industry.

ORGANIZATION SETUP AND TARGET SECTORS

A number of projects were engaged in whole village projects, i.e. providing basic electricity such as lighting to a whole village at once.

Most of the successful organizations initially targeted a small area or population before expanding to a larger scale. This helps to develop the project implementation plan so that it will avoid or be able to deal with challenges.

MEDIA AND OUTREACH/EDUCATION

A number of organizations have put quite a lot of effort into publicity and PR activities. This has ranged from conferences to system commissioning and commercial advertising. Newsletters and blogs provided donors with a lot of information on project progress. This publicity has helped to build up the reputation of the respective organizations, which has helped with funding and support.

Education of the public on the use and maintenance of the systems has also been highlighted as an important factor of solar power installation. Some projects engaged in community outreach such as providing information and using marketing materials to inform people of the project in the region and raise awareness of the existence and advantage of solar power over other power sources such as wood and kerosene, LPGs and natural gases. School programmes and educational workshops were a common feature of a majority of the projects.

TECHNICAL ASPECTS

Solar power systems were typically used for lighting, refrigeration and water pumping in schools, clinics and offices, as well as for agricultural improvement.

Many of the organizations have implemented pilot projects in one or two villages or, where relevant, in one building, such as a school. This has an invaluable tool for many organizations to discover possible problems but also to find the most useful ways to expand.

A number of organizations not only provided more reliable electricity but also aimed to reduce energy consumption. As well as ensuring that their solar panels were of a high quality for a longer lifetime, PUG's post-implementation energy conservation campaign was a good way to try to reduce the increased energy demands that resulted from improved standards at the hospital. This could prove to be a good counterpart to solar power installation projects as it seems likely that such a problem could occur at many installation sites as the quality of a service is improved by a regular supply of reliable electricity. It also highlights that this issue should be carefully evaluated in the post-implementation monitoring stage. PUG and SPA also aimed to reduce the quantity of energy needed by replacing light bulbs, upgrading plumbing, providing PV systems, which consume less energy, and replacing energy-intensive desktops with laptops.

In a number of cases it was possible to source some equipment locally. This reduces transportation costs and supports the local economy.

1.5.1.2 ~ SPECIFIC

Solar Light for Africa had Christian networks and SunPower Afrique had microfinance networks to work with. Mali Folkecentre had overseas assistance from a Danish development organization (bilateral partnership).

Mali Folkecentre specifically ensured installations would directly lead to income-generation, which fit into the socio-environmental context. This was ensured by follow-up meetings. The Solar Electric Light Fund specifically went out of their way to ensure installations were tailored to local social and cultural norms. EFA focused on "practical applications", e.g. system sizes appropriate to needs.

MFC's and SELF's maintenance committees specifically made sure to include women who were also directly involved with installations during this training session. In fact, SELF's solar pump system was implemented and maintained by a women's agricultural group. These initiatives have helped to boost women's empowerment in the target villages. SELF's project also benefited from the fact that they made use of an existing women's agricultural group whose members were used to working together with a vision to improve their livelihoods. Similarly, SPA has the advantage of working with groups of MFIs. EFA managed to provide training to a very large number of people in different villages through training a number of people from each village who would go back to teach others what they had learnt. PUG and SELF stood out because they provided more long-term support post-implementation. This included maintenance assistance, connecting maintainers with local suppliers, guiding purchases and helping to get information about market prices. SLA relied more on a local contractor to maintain the systems although volunteers were trained to help install the systems and to carry out basic maintenance tasks.

Power Partnerships (SLA). Bilateral relations (REG). MFC permanent local and ex-pat staff.

SELF stands out especially when it comes to project monitoring and evaluation. This was carried out very thoroughly by Stanford University and was crucial to the project's future development as the pilot project was to be extended to 40 other villages, hence it was important to determine if there were any problems with the project implementation and/or management.

Another aspect of SELF's methodology which contributed significantly to its success was that, by tailoring the project to local cultural norms, project implementers created an environment in which villagers could easily receive the changes that this project brought their communities, i.e. through constructing a metal-free intake system to pay homage to the sacred crocodiles in the river.

SLA's installation team was often made up of missionary volunteers from the United States.

SPA is particularly note-worthy as it is the only project that combines microfinance loans (i.e. their Solar Loan 1 and 2) with solar energy installation. Although they have only just completed the pilot project, their detailed 5-year business plan shows that it is predicted to be a feasible way of helping poor rural villagers to afford to install solar power to improve their microbusinesses. Providing solar power through "solar loans" gives the recipient a feeling of ownership and responsibility for their solar power system, which will hopefully help the project to be sustainable and is perhaps more favourable than giving solar power 'handouts.'

MFC had technical and managerial support from Folkecenter in Denmark – bilateral partnership.

MFC's income-generating activity aspect proved useful to the sustainability of the project in that it made sure that there was a group who was responsible for maintaining the system and they were getting paid for doing so – an extra motivation.

1.5.2 ~ SHORTCOMING

1.5.2.1 ~ COMMON

The following section analyses of the main challenges faced by the projects during planning, implementation and evaluation stages and the lessons learnt. This section reviews common issues and problems that should be addressed by any renewable energy development project in Western Africa. The main challenge in the planning stage is to be able to take into account all the elements of the context in which the project is going to be implemented and envisage all possible scenarios.

POLITICAL AND LEGISLATIVE ASPECTS

An assessment of socio-political aspects is needed at a local and national level. Political instability and inter-village rivalries can interfere during all stages of the project; these are difficult to predict but important to be taken into account.

Legislative and institutional barriers were reported in most of the projects. Solar Light for Africa in Sierra Leone, together with other projects in the region, suggested problems related to the import of solar panels and bureaucracy issues that they had to face at the port. In the case of Renewable Energy Ghana, the Government of Ghana was also a contributor and had to pass some legislative initiatives in order to participate in the implementation of the programme. According to the process was time-consuming and was followed by the delays in transporting the solar panels into the project regions.

Another legislative barrier is the import tax, which varies from country to country and is subject to change. In the case of Togo, import tax was lifted for the import of solar panels compared to Ghana where the cost was raised by 10% for duty tax and over 15% for sales tax for solar panels.

SOCIO-ECONOMIC ASPECTS

A realistic assessment of the socio-economic environment is crucial. In most of the countries in Western Africa there is a problem of low literacy rates and education, which makes training the beneficiaries difficult. This problem had to be addressed by most of the projects. In some cases, that the training programmes had to be revised and adapted for people with different levels of literacy and technical expertise. It also was important for the evaluation stages. For example,

in the case of the SELF project in Benin, low literacy rates created barriers in surveying beneficiaries and collecting all the necessary data for evaluation.

Lack of knowledge and understanding of the technology was a barrier in most of the projects in Western Africa. SunPower Afrique reported cases of people who didn't like the smell of batteries or were afraid of solar panels making the roof collapse. The renewable energy project in Ghana suggested that overcoming the lack of experience with solar energy is one of the main impediments for the project implementation.

The existing renewable energy market in the region was often very small and there was very little parallel market development. It must be taken into account if the competitive market for renewable energy resources is underdeveloped.

Most of the countries where projects were running had little or no initial experience with solar energy projects. This meant more effort was needed to negotiate with local actors and persuade people. It also meant a poor solar energy market and lack of market actors, local producers and distributors of solar energy products.

FINANCIAL ASPECTS

Six projects out of 7 reviewed were NGOs relying on external funding. This sporadic funding had an impact on the expansion of some of the projects. It is important to mention that all projects were able to fund all the planned activities and envisage project expansion but some of these plans had to be delayed. Perhaps some of the projects would have benefited from being more financially self-reliant, if not in the short-term, then definitely in the long-term. SunPower Afrique is a good example of this sort of thinking.

Most of projects were volunteer-based and relied mostly on volunteers for project planning and installation. This creates flexibility for the project team and reduces the amount of overhead costs but the degree of responsibility and dedication is not the same as in the case of professional-based organizations.

TECHNICAL ASPECTS

Technical aspects are one of the possible shortcomings. Technical planning can be crucial for the implementation of the project. In the case of the Ghanaian project the main goal to support agricultural activities with solar power was not reached due to inadequate technical planning.

Taking into account that agriculture was the main activity in the area, the energy provided by the installed solar panels was not enough to cover local agricultural needs. Another dimension of the problem was reported in Gambia where, due to the success of the project after the installation of the solar panels in the hospital, the energy demand was raised because of an increased number of patients arriving from the neighbouring villages. An energy conservation campaign was initiated to overcome this problem.

We can conclude from most of the implemented projects that the monitoring stage is a crucial part of the project. For example, in the case of the SELF project it was revealed that monitoring is important in order to ensure that, while working with local partners and institutions, solar electric power education and technical expertise is being passed on to the beneficiaries and to ensure that this is helping them to achieve better living standards.

1.5.2.2 ~ SPECIFIC

SunPower Afrique struggled to find professionals to help the organization with financial planning for free. Finally, they addressed an expatriate from Togo working in the US that met all the requirements to write the financial strategy. Environmental Foundation for Africa reported that due to the large number of villages in need, the site selection was a complicated process.

The project in Ghana experienced delays with the recovery of capital and operational costs. This issue was reported as a barrier to sustainability. The banks were not very open to lending money to people for solar power systems and as a result, one of the major recommendations from the experience was to link the provision of solar energy with micro-finance services in order to improve its financial viability for the local population.

Although none of the case studies mention corruption as a problem, one may assume that it may have purposely been omitted either due to difficulties with measuring corruption or due to not wanting to admit that it was an issue for fear of losing donor support. From the corruption research, mostly retrieved from Transparency International, it appears that corruption is indeed a common feature in Sierra Leone. Therefore the following report has been included so that the issue can be properly addressed.

According to Transparency International (TI), Sierra Leone was ranked 164/180, scoring 1.9 on a scale of 0 to 10 - 10 being the cleanest value - in the Corruption Perceptions Index (CPI) in 2008. By 2009 it had moved up a number of ranks to 146/180, scoring 2.2. This improved score may be a reflection of the latest government's attempts to tackle corruption.

Also on TI's website, an article from 2008 has been documented regarding Sierra Leone's latest president's efforts to combat corruption: "Sierra Leone's President Ernest Bai Koroma signed a new anti-corruption law in September, which involves a wide-range of anti-corruption measures, including harsher penalties for graft and support for whistleblowers. As part of the new measures Koroma declared his assets, making him the first Sierra Leonean head of state to do so."

According to TI's Global Corruption Report for the year 2009, several of the following risk factors are likely to be present in post-conflict states:

- Weak state institutions operating with unclear and poorly enforced rules
- Large, unique construction projects, often implemented quickly and without strong financial controls following the destruction of infrastructure during the conflict
- The availability of substantial public resources that do not depend on taxation, especially emergency relief and aid funds, but also including natural resource rents in some cases
- The existence of entrenched, organized crime groups, which may have thrived on the arms trade or smuggling during the conflict and may be keen to consolidate their power in post-conflict situations through corruption or state capture.

TI's country study report for Sierra Leone in 2004 explains that, according to an anti-corruption survey carried out in 2000 by the National Reform Secretariat, the majority of respondents (about 94%) indicated that corruption is rampant in most government departments. The survey also revealed that some participants believed that corruption is more prevalent in the public than in the private sector.

Three types of corruption are described as being prevalent in Sierra Leone: petty corruption; grand corruption; and political corruption.

Petty corruption is widespread, small scale and visible. In Sierra Leone, this type of corruption is prevalent in the police, courts, immigration authorities, Income Tax Department, Passports Office, National Registration, Sierra Leone Ports Authority, National Power Authority, Births and Deaths Registration Office and in the military. In light of the fact that, in the analysis, it has been mentioned that import legislation has proven to be problematic, of particular interest is the example given of corruption carried out by customs officers. The report states that it is commonplace at customs for the officer to exploit the ignorance on the part of the customer of the correct tariff. The customs officer will demand, or the customer will suggest, that a bribe be given for the goods or items that are under-valued by the officer, or even not pay any customs duty on the item.

Grand corruption involves huge sums, ranging from large amounts of money paid for the awarding of contracts, to the misappropriation of public funds. Media reports and cases investigated by auditors report evidence of grand corruption at the National Ports Authority, the Sierra Leone State Lottery, the Sierra Ports Authority, the Customs Department, the Ministry of Health and the National Power Authority, among others.

Political corruption exists in Sierra Leone, characterized by too much political patronage, official security protection for culprits and vested interests/official collaboration, e.g., it has been common practice to appoint party officials to head parastatals. Corrupt practices also exist between the private sector and government officials. In the Anti-Corruption Survey 2000, the overwhelming majority perceived levels of corruption in Non-Governmental Organizations to be 85.5%. The corruption in this sector includes misappropriation/embezzlement of relief items, official favours, inflated contracts, and bribery.

MAJOR CAUSES OF CORRUPTION IN SIERRA LEONE

- ~ High level of poverty - this is perceived as the most important factor responsible for corruption in Sierra Leone according to the Anti-Corruption Survey (Sierra Leone) 2000.
- ~ Poor conditions of service (low salaries/wages)
- ~ [Financial] pressures and demands from the extended family members
- ~ The absence of deterrent measures to check or deal with cases of corruption despite the activities of the Anti-Corruption Commission
- ~ Bad leadership – political, social and religious - which has been attributed to political patronage.





2 ~ MICROFINANCE



2.1 ~ INTRODUCTION

M

ICROFINANCE IS ONE OF THOSE SMALL IDEAS THAT TURN OUT TO HAVE ENORMOUS IMPLICATIONS. IT DEALS WITH THE PROVISION OF loans, saving and insurance services for poor individuals or groups who would be otherwise excluded from bank services. Microfinance has been a hot topic for more than ten years because it has proven an effective instrument for poverty alleviation. Meanwhile, the investment to microfinance seems to be successfully covered, some of the investments even gained positive return. Petty traders in developing countries are able to generate higher returns on their investment than traders in developed economies. This is a good message to MFIs because they can afford to pay a higher interest rate to cover the high cost risks.

The microfinance sector in Sierra Leone is still at a starting point. For a little over a decade, the country was in a state of chaos as one of the most brutal civil wars in recent history raged in the country. This war left the country with a traumatized population, a severe lack of infrastructure and a dependency on foreign countries for security and aid. MFIs that start up in Sierra Leone are greatly needed for the country's self-sustainability.

2.2 ~ CASE STUDIES

The following MFIs have been picked as interesting case studies in terms of their well-performance and impact on society, economy and environment:

- ~ Finance Salone
- ~ Local Enterprise Assistance Programme (LEAP)
- ~ Grassroot Gender Empowerment Movement (GGEM)
- ~ Community Empowerment and Development Agency (CEDA)
- ~ Lift Above Poverty Organization (LAPO)
- ~ Bangladesh Rural Advancement Committee (BRAC)
- ~ Salone Microfinance Trust (SMT).

2.2.1 ~ FINANCE SALONE

BACKGROUND

In 2001, the American Refugee Committee (ARC) responded to the needs of Sierra Leone with its microfinance programme. They provided loans to returning and host populations to set up micro-entrepreneurial activities to help them restart their lives. Loans were used for businesses such as carpentry, market gardening and tabletop retail enterprises. Over the first year and a half of operation, the programme served more than 3,000 clients through three local partners, developed systems for managing its portfolio and built local staff capacity by hiring experienced expatriate managers and instituting high entry standards and training programmes for its staff. This helped the project to grow very rapidly.

In the fall of 2002, with field operations in place, ARC and the microfinance staff turned towards making the programme sustainable. To focus energies and increase the chance of success, operations were consolidated under the banner of Finance Salone.

ARC planned to manage the portfolio during the consolidation period, then “spin-off” the programme and register it as a local microfinance institution. Under ARC management, Finance Salone has dramatically improved its capacity and performance in terms of factors such as the numbers of clients served and decreasing portfolio at risk. Alongside its success as a microfinance provider, ARC has taken the lead in moving the microfinance industry forward, helping to found the Sierra Leone Microfinance Forum and participating in the development of the Government of Sierra Leone Microfinance Policy.

In January 2005, Finance Salone became a limited liability, for-profit, finance company under Sierra Leone law. As a registered company it qualified for direct support in the form of funding, training and technical assistance from the Microfinance Investment and Technical Assistance Facility (MITAF), a five-year project funded by UNCDF, UNDP, KfW and Cordaid. Between 2006 and 2008, Finance Salone received USD700,000 in loans disbursed by UNCDF.

During the first year of operations, Finance Salone expanded in both the capital and rural centers, providing demand-driven services to micro-entrepreneurs through group and individual lending products. Once Finance Salone reached profitability, ARC sought international and domestic investors to diversify ownership. Strengthened by a committed base of owners, Finance Salone then began accessing commercial funds to profitably reach over 45,000 active clients by 2009 with a loan portfolio projected at more than US\$6.9 million. The aim was to prepare Finance Salone for transformation into a deposit taking institution. By taking an early corporate route, ARC not only aligned its structure to match its mission of providing profitable financial services to entrepreneurs; it paved the way for the microfinance industry in Sierra Leone to enter the financial mainstream.

The company has continued to benefit from the close oversight of ARC who is now the majority shareholder in the company, and has applied for license under the Other Financial Services Act to operate as a non-deposit taking financial institution.

STRUCTURE

Finance Salone is covering major parts of Sierra Leone with full branches in central Freetown, Lumley, Wellington, Kambia, Lungi, Bo, Kono, Kenema and Kailahun. It also has sub-branches in Waterloo in the Western Area, Lunsar and Port Loko town in Port Loko; Daru and Segbwema in Kailahun; Bamoi and Rokuprr in Kambia and Blama in Kenema (from SLE DSPFS final). In 2007, Finance Salone had a total of eighty employees.

Finance Salone operates through a decentralized branch office model. The head office, situated in Freetown, serves as the center of administrative, financial, and monitoring support. Branches are autonomous, managing day-to-day operations in accordance with quarterly and yearly plans. Finance is managed through use of Loan Performer for portfolio tracking and ACCPAC for accounting. Internal controls are detailed in finance and reporting manuals and enforced through an internal audit unit and regular monitoring of activities by headquarters' staff.

MISSION

Contribute to the economic rebuilding of Sierra Leone by providing financial services to low-income entrepreneurs through a profitable microfinance institution with national scope.

MFI PRODUCTS

Finance Salone has developed innovative loan products targeting the rural poor who have been neglected by the banks. Finance Salone has been able to expand outreach to eight of the 12 districts of Sierra Leone. By 2007, it had a network of nine branches and seven sub-offices. Most Finance Salone clients are small-scale traders. They buy and sell used and new clothes, building materials, fruits and vegetables, farm equipment, and miscellaneous retail items. Others work as barbers, hairdressers, restaurateurs, motorbike taxi drivers, carpenters, and metalworkers.

A UNCDF newsletter article from May 2008 states that Finance Salone offers five loan products including a solidarity group loan to low-income entrepreneurs. Loans start at USD 75 for seven months and increase to USD 250 for 10 months for clients with on-time repayment. Finance Salone charges up-front fees and a 2.5% monthly flat interest rate. In order to serve clients whose needs have outgrown the group loan product, Finance Salone began to offer individual loans in 2006. These loans begin at USD 350 with terms of up to one year. Finance Salone started offering salary loans to salaried employees in 2007.

A report by LINKS in September 2008 states that the terms of the loans offered by Finance Salone are competitive and in line with market rates for similar services from other microfinance institutions. It explains that Finance Salone offers three types of loan products: "Mega Loans," "Club 5 Loans," and "Individual Loans." The "Mega" loan is the basic group product with loan sizes from Le 300,000 to Le 800,000 for a period of 4-10 months (at the choice of

the clients) and is repaid in bi-weekly or monthly installments at an interest rate of 2.5% per month on a flat rate. In addition to the interest on the loan, the institution charges administrative and risk management fees of 1% each of the loan amount. The “Club 5” loan is a group loan for groups of 5 members getting loans of over Le 1 million each. The “Club 5” and “Individual Loans” are larger, over Le 1 million, and are available to clients who graduated from their “Mega” loans with a good track record of on-time repayment. To the credit of the institution, no client had any complaints about the rate of interest, charges, or any other terms of Finance Salone loans.

Focus group interviews by LINKS revealed that Finance Salone’s Loans Officers assisted clients to obtain access to financial services. The company was also effective in client recruitment and retention. The group methodology, employed in the ‘Mega’ and ‘Club 5’ products were tried and tested methods of safely lending to small borrowers who lack collateral and operate under conditions of limited assets and capital, which are characteristic of microfinance clients in Sierra Leone. Focus group discussions also revealed a high level of client satisfaction. Although some clients complained about perceived arbitrariness in qualifying clients for the Club 5 product, which offers larger loan sizes (above Le 1 million), the branch managers were able to dispel the notion of arbitrariness by explaining that the track record of group performance, especially on-time repayment of loan instalments, was the primary criterion for qualification.

TRAINING

To ensure that national staff is able to manage the institution effectively, ARC engaged Finance Salone in a comprehensive capacity building programme that built staff skills at all levels.

FINANCING

Finance Salones’ expansion was, and is, funded by a combination of equity investments, commercial and concessional loans and capacity building grants. ARC sought international and Sierra Leonean microfinance investors to diversify ownership, bring added technical assistance and increase Finance Salone’s capital base. Portfolio expansion was first fuelled by concessional lending from the UNCDF/UNDP/KfW microfinance support fund and other social capital funds and later by accessing domestic or international commercial capital. Finally, initial operating losses were covered by capacity building grants supplied by the microfinance support fund and other donors.

In May 2004, ARC anticipated that early portfolio growth would be fuelled by accessing capital from social investment funds on a debt or quasi-equity basis. While the KfW/UNDP/UNCDF fund was one potential source of financing, ARC sought other sources of capital in order to diversify its funding base and to build relationships that in the future could lead to additional debt or equity financing.

RISK

The *Finance Salone Profile for Investors* paper from 2004 mentions a number of risks that the future owners of Finance Salone would face following incorporation and expansion (this report was written before Finance Salone became an independent organization from ARC). These are:

MARKET RISK ~ While the Sierra Leone microfinance sector is moving towards best-practices models, there is the chance that government or donor subsidized interventions can undermine for-profit microfinance initiatives. Finance Salone responds to these risks by liaising with donors and government ministries to promote best-practice microfinance models and policies.

INFLATION RISK ~ Although inflation remained below 5% in 2001-2002, it had increased to 20% in 2003 in response to lax monetary policy. Finance Salone expected inflation to stabilize at 10% but prepared to adjust its fee structure as necessary to protect the value of its capital base.

FOREIGN EXCHANGE RISK ~ During 2003, the value of the Leone fell by 15% in response to inflationary pressure and the reduction of the UN peacekeeping force from 15,000 to 5,000 troops. Since this trend is likely to continue, potential investors should consider the risk of lower future exchanges and therefore lower than expected return when local currency is converted back to dollars or other currencies.

COUNTRY RISK ~ Sierra Leone had been stable for nine years and has been buoyed by the continued presence of the United Nations peace keeping forces, the return of stability in Liberia and donor investments. Nevertheless, considering its history of civil conflict, the chance of political risk that will affect returns on investment continues.

CHALLENGES

The LINKS report highlights a number of problems that Finance Salone faced.

The microfinance loans given by two of the Finance Salone branches (Kono and Kailahun) analysed by LINKS were overwhelmingly for trading. Although the programme was aimed at financing agricultural inputs and outputs for market development, these objectives were not pursued by the management of the branches, and therefore not achieved to any extent. In fact, Finance Salone, like most other MFIs in the country, does not, as yet, market agricultural loan products.

The terms of the loans offered by Finance Salone were competitive and in line with prevailing market interest rates, loan periods and repayment frequencies. However, although the branch offices were conveniently located in the district headquarter towns for the clients whose business were also mainly in those towns, this arrangement excluded financial services to more remote communities in the districts.

Unfortunately Finance Salone is easily accessible only to clients in urban areas, limiting access for farmers in rural locations. In both branch offices (Kono and Kailahun), client's enterprises were mostly within a radius of two miles of the branch and the branch offices were only located in the district capitals where almost all the clients were concentrated. Consequently, very little financing has been directed at rural communities to support agricultural inputs and market development for small producers even though these were established LINKS Program Objectives. This was a challenge Finance Salone could not meet for several reasons, not the least of which is the high logistical and operational costs in servicing small loans in remote locations.

There is need for expanded access to agricultural investment credit. The micro-credit and Finance Salone operations were successful in the areas of intervention. However, disquiet caused by the insufficiency of start-up grants, etc., was an indication of high unmet demand for agricultural investment capital, especially for medium- to long-term capital. This is an area critical for development of the agricultural sector particularly in the tree crop and commercial vegetable areas of the country.

There is a huge unmet need for adult literacy programmes. The average literacy rate recorded in the LINKS communities during their assessment was 28% compared to a national average of 39%, which is very poor by African standards. The huge demand for adult literacy is shown by the enthusiasm for the LINKS literacy programmes, particularly for the models linking such training with savings and loans as well as agricultural and business skills development.

2.2.2 ~ LOCAL ENTERPRISE ASSISTANCE PROGRAM (LEAP)

BACKGROUND

During the civil war in Liberia between 1989 and 1997 a recent commercial banking student of the University of Liberia, Bill Massequoi, and his pastor decided to experiment with microfinance in their church with the goal of providing loans and other financial services to the vulnerable poor who had been affected by the war and to help them to get back on their feet. Initially, they only had enough funds to loan to a handful of people and they faced numerous problems. However, in 1994 they met up with the Association of Evangelicals of Liberia (AEL), World Relief and Christian relief and development organizations, and the Local Enterprise Assistance Program (LEAP) was founded with their assistance. LEAP also received assistance from a Christian family foundation to get it off the ground. As a Christian organization, LEAP provides microfinance services to all without discrimination. LEAP seeks to promote positive economic and spiritual development in the lives of its clients and their families.

LEAP distributed its first loans in 1995 and grew throughout the year. Unfortunately, disruption returned to Liberia in 1996 and entered into Monrovia where LEAP's office, and those of many other NGOs, was ransacked. Their operations had to be suspended until 1997. However, in the meantime many clients continued to repay their loans and the pastor successfully continued to collect and disburse payments, which saved the organization from falling into massive debts when they resumed their operations.

STRUCTURE

LEAP is a locally registered independent microfinance institution, recognized in the market as a trustworthy institution and the leading MFI in Liberia, operating with 13 branch offices throughout the country. The head office is located in Monrovia, Liberia.

LEAP has a 5-member experienced board of directors that oversees its affairs, formulates strategies and policies and monitors institutional performance. The Board has a mix of skills covering legal aspects, microfinance, accounting, community development and banking that provide productive discussions during board meetings.

LEAP has never been well funded, and suffered some losses from the 1996 catastrophe. Nevertheless, by the end of 1998, LEAP had stretched its limited funds enough to recover to a level of serving more than 2,000 clients and their families. Twenty Liberian staff served these clients through two branches working in three “counties” of Liberia. One hundred community banks were operating, linked to approximately 40 churches (many churches are linked to more than one community bank).

LEAP’s founders are cautious about where to base their functions as they were met with limited success when they initially functioned from the church:

“LEAP has made a conscious decision not to base its operations in local churches, as Mr. Massaquoi and his pastor had unsuccessfully attempted to do in their own church. Instead, LEAP strives to link groups as closely as possible with churches, working with them rather than through them. This church-centered, rather than church-based, relationship is felt to maximize benefits to churches and clients while minimizing the damage often seen to occur when operations have been conducted by churches.”

Also, LEAP works closely with AEL’s Spiritual Ministries department. This department is not officially part of LEAP, but its close working relationship has allowed LEAP to use AEL Spiritual Ministries staff for teaching, preaching, and other activities.

MISSION & GOALS

LEAP mission is to “empower and provide access to microcredit and financial services to economically disadvantaged people, especially women, thereby strengthening communities as an extension of God’s Kingdom, through Jesus Christ our Lord and savior.”

LEAP goal is to be achieved by becoming the leading microfinance institution in Liberia through developing a sustainable, transparent and professional financial institution that supports the economic and human development of families trapped in poverty and unemployment.

- ~ 1. Permanent, self-sufficient microfinance institution
- ~ 2. Breadth of outreach: hundreds of thousands are Liberians are in need of financial assistance
- ~ 3. Depth of outreach: targeting the poorest of the economically active poor, primarily women
- ~ 4. Significant physical and spiritual impact
- ~ 5. Strengthening the Church

FINANCIAL OVERVIEW (2009)

GROSS LOAN PORTFOLIO (USD)	1,172,485
# OF BORROWERS	20,438
BORROWERS ~ Women borrowers (%)	94.00
PAR>30 (%)	4.45
OPERATIONAL SELF-SUFFICIENCY (%)	113.4
TOTAL EQUITY (USD)	441,285
WRITE-OFF RATIO (%)	0.00
AVG. LOAN/BALANCE BORROWER (USD)	57

LOAN PRODUCTS

LEAP has three main loan products that serve its micro- and small-entrepreneur clients. The loan products are laddered so that over a series of cycles, successful borrowers can graduate up the chain and take advantage of loans that best meet their growing needs.

Group loans: “Solidarity” loans made to groups of five people, in which borrowers guarantee each other’s loans in the event of delinquency or default. At the time of loan disbursement, borrowers must deposit a small portion of the loan amount with LEAP as cash collateral, and are also encouraged to participate in voluntary savings. Group loans are made to support clients’ income-generating activities. Potential clients will have been in business for at least 6 months. Most LEAP clients are group loan borrowers L 4,000 to 35,000.

Business loans: Business loans are made to support clients’ established income-generating enterprises, carry larger loan sizes than the standard group loan, and are only made to borrowers that have been successful group loan borrowers. USD 1,500-5,000 per person, payable in a period of between 6 to 12 months on a monthly basis. It is open to non-registered and reputable businesses with a minimum of two years in operation and producing profit. No start-up businesses are financed.

Individual loans: Loans made to individuals who have established businesses with consistent cash flow. Designed to help support small entrepreneurs, individual loan borrowers must provide some form of collateral and have a guarantor, and deposit a portion of the loan with LEAP as cash collateral. Individual loan amounts are the largest among LEAP’s product line. USD 500-5000. The individual lending requires that the client have an independent business, and must have sufficient collateral and profitable business.

REPAYMENT

After receiving their own loan, solidarity group clients have a two-week grace period in which to establish their business before they have to start to repay their loans.

Solidarity group loans are to make repayment weekly over a 16-week period. Solidarity Groups are to elect a representative who will attend weekly repayment meetings at the LEAP branch from which they received their loan. Each representative is to bring the Solidarity Group repayments to the weekly meeting. All members are required to attend a monthly repayment meeting. If a member or members of the Solidarity Group fails to repay their debts, the other members must repay on their colleagues behalf.

THE IMPORTANCE OF CASH COLLATERAL

Cash collateral forms an important part of LEAP’s methodology. According to LEAP they have often met with challenges that were not able to budget for. However, they have regularly saved and been able to withstand the unexpected challenges that come our way. LEAP asks that clients save 10% of their loan at disbursement. This is to help protect the clients’ capital. This 10% is not available for withdrawal until the end of the loan cycle. Clients are also encouraged to save a percentage of their loan each week. 50% of the client’s savings are available for withdrawal at any time, with a maximum of two withdrawals during the loan cycle.

EVOLUTION OF LOAN METHODOLOGY

Before 2000, LEAP appears to have focussed mainly on forming community banks connected to AEL church-centred groups and followed the standard village banking model relatively closely:

During 1999, LEAP has focused almost exclusively on the village banking model of microfinance, which it calls “community banking”. LEAP has conducted only very small experiments with solidarity groups and individual lending methodologies. LEAP follows the standard village banking model relatively closely, with loan cycles of four months, weekly repayments, group mutual guarantees, stepped lending in future cycles, a focus on women, and accompanying savings services. Individual loans start at about USD 50. Maximum loan sizes in subsequent cycles are linked to client savings balances. Interest of 4% per month (flat) is charged. Like other MFIs, LEAP charges interest not only to cover its costs, but also to avoid cases of inadvertently and artificially propping up inherently unviable client businesses by subsidizing loans to them.

AVERAGE GROUP SIZE ~ 21 units

LOAN SIZE STARTING ~ USD 50 (increases in subsequent cycles linked to savings)

LOAN TERM ~ 4 months

LOAN USE ~ Primarily on trading and small-scale services. As client businesses mature, more diversification and sophistication is attained.

COLLATERAL & GUARANTEES ~ Mutual guarantees as collateral substitutes.

However, as mentioned, the focus is now primarily on solidarity groups and they do not mention that they limit their activities to church-centered groups. In 2009, the loan methodology was as follows:

INDIVIDUAL LOAN BORROWERS ~ 211 units

SOLIDARITY GROUP LOAN BORROWERS ~ 20,227 units

VILLAGE BANKING ~ 0 units

TRAINING

Personnel: LEAP is extremely selective and thorough when hiring new promoters. It usually trains about 10-12 candidates for three weeks, during which time it observes and tests them. This training includes practical fieldwork. Management staffs pay particular attention to candidates' people skills and demonstration of spiritual fruit. At the end, only 2-3 of these candidates are offered permanent positions. Staff have been formally trained by the founder and executive director and others to increase their ministry skills. For example, courses in Human Relations, Relational Evangelism, and Biblical Counselling have been given. These were taught by AEL's Spiritual Ministries department and the Liberia Community Recovery Project.

Beneficiaries: LEAP has had to take leadership in educating local stakeholders, including other NGOs, donors, and government officials, on sound microfinance practices. Often this occurs at the most basic levels, such as the need to recover loans, to charge interest, and to cover costs.

Other: LEAP staff spent a great deal of time educating government officials, relief donors, media, and others about the basic principles and practices of microfinance. A common question was, "Why charge interest?" As the first MFI in Liberia, LEAP staff took the lead in explaining these basic principles at all levels. MFIs in other post-conflict environments report spending significant periods of time in similar educational efforts— particularly aimed at relief-based organizations entering "microfinance" without knowledge of basic principles and practices.

PARTNERSHIP

LEAP obtains technical support from experienced microfinance advisors supported by its stakeholders. This is playing a key role in guiding the growth process and building staff capacity. World Hope International, Kiva and World Relief Canada are three of the main partners providing financial and technical assistance.

The Spiritual Ministries department of the AEL conducts evangelistic efforts, Bible and topical studies, and other activities connected to community bank meetings. The AEL project called "Liberian Community Recovery Project" is funded by World Relief and others and works to provide biblically based trauma counselling directly to trauma sufferers and indirectly through training-of-trainers events and through materials development/dissemination. Church leaders and even LEAP staff have received this training.

RESULTS

By mid-2001 LEAP was serving more than 5,000 clients, with an average loan size of USD 87, and nearly all (99%) clients were women. By the end of 2009 LEAP was providing loans to more than 15,000 Liberians and boasting an on-time repayment rate better than 98%.

Clients' ability to offer help to others who are suffering has increased which in turn increases their feeling of worth and value.

Clients, especially women, have been given the opportunity to live moral lives. LEAP has purposely sought to contribute to reconciliation among warring ethnic groups. It has done this partly through biblical teaching in meetings, but also in a uniquely practical way – by strongly encouraging multi-ethnic banks. It is important to note,

though, that: “LEAP recognizes that this ‘social engineering’ violates one aspect of conventional ‘best practices’ wisdom, which argues that MFIs should not influence group composition. LEAP also understands that groups need strong solidarity and mutual trust and that multi-ethnic banks may actually show poor repayment. This would affect LEAP’s financial performance. Nevertheless, LEAP has consciously chosen to accept this possible trade-off, in order to contribute to desperately needed peacemaking in the country.”

ECONOMIC

LEAP has helped to reduce poverty as it allows more entrepreneurs to set up small businesses to earn an income. This has helped many people to afford schooling for their children as well as other basic necessities such as healthcare and shelter.

Increased income and assets can be used to improve family nutrition, education and health care. Clients overwhelmingly cited improved household nutrition as the predominant impact on their lives.

Pastors cited remarkable gains in church tithes and offerings. Estimates of increased church income ranged from a low of 30% (for a church with one year in the programme) to highs of more than 100% (for churches with three years or more of participation). This is an indicator of the rising income and greater spending power of the microfinance clients.

CHALLENGES

Creating a client mentality in the midst of an environment dominated by relief operations, and often by extreme uncertainty presents a challenge to many MFIs. “We’re immersed in a sea of handouts, with little or nothing expected of beneficiaries,” said the executive director. “So, in the beginning our clients expected our money to be another one-time handout. It took a while and a lot of educational work on our part, but in time they understood that they receive far more value from continued access to financial services.”

Some clients don’t use the loan for its intended purposes, especially second-time borrowers (first-time borrowers make more of an effort to make a good impression with the MFI in order to be able to take out another loan later if needed). LEAP’s MIS Director suspects that “eating the money” (spending loan money on food, clothes, school etc.) can occur in 10 to 20% of 2nd-time LEAP borrowers. LEAP recognizes this temptation as a serious threat to the success of the loan programme and has therefore identified five main strategies to address this issue:

- ~ 1. Educate clients on proper and improper loan utilization
- ~ 2. Train clients about smart business skills, such as how to price products and how to interact well with customers
- ~ 3. Conduct effective monitoring – visiting clients one time per week unannounced, if possible
- ~ 4. Initiate a warning if a client is found to be ‘eating the money.’ Clients who don’t abide by the rules and regulations governing the loan and keep misusing their loan money are told that they are at risk of not receiving another LEAP loan.
- ~ 5. Termination of the relationship as a final step, thereby barring the client from receiving additional LEAP loans.

Internal repayments problems: Although LEAP’s on-time repayment rate (measured by Portfolio-at-Risk, PAR) in the first few cycles of a community bank is usually high, it usually declines in later cycles as they start to feel that they can bend the rules a bit and get away with late repayments as LEAP gains more trust in them. This problem was particularly noted among Christian group borrowers. A problem throughout LEAP’s history, which has worsened recently, has been the tendency of groups composed largely of Christians to renege on their payments. Such groups cite their perception that LEAP’s assistance should be charitable, since it is connected to the church.

External repayment problems: Some clients returned to the areas from which they had been displaced without first settling their debts. This is a risk of targeting the displaced and refugees. Also, there was a government initiative to forcibly move the informal sector vendors to other areas. This reflects the government’s lack of appreciation and understanding of the benefits of the informal sector.

Many churches in Liberia, as in some other countries, do not have a vision for outreach. Instead, they prefer to limit the community banking services to their present members. Thus, LEAP and other microfinance practitioners must encourage churches to expand their outreach to non-church members.

FINANCIAL

In 1996, LEAP's operations were suspended for nine months due to intense fighting in Liberia's countryside and in Monrovia where they had their office. When they reopened again in 1997 they had trouble sourcing enough funding in order to grow and expand their services and had to largely rely on growing their borrower base slowly with internal funds.

When intense post-election violence broke out in 2003, LEAP's survival was again put in question. As in the periods of conflict before, many borrowers' livelihoods were severely disrupted or destroyed, and thousands of Liberians fled the country or were internally displaced. However, LEAP managed to survive this period of conflict as well, assisted by its partners and stakeholders World Hope and World Relief.

Post-conflict funding problems: Traditional microfinance donors – who understand the operational and funding requirements of microfinance – find the post-conflict environment too unstable for development-oriented programming. Relief-oriented donors, on the other hand, see development work such as microfinance as outside of their relief-oriented mandate. Funding needs for microfinance thus fell between the cracks at times. When relief funds became available to LEAP, other problems emerged. Short funding cycles of relief funds did not match the longer-term commitments needed for the development of a financial services institution. At times, relief donors needed to “dump” funds near the end of a year and gave LEAP only a few months in which to spend the funds, a task not normally faced by MFIs in non-conflict settings.

The largest Liberian bank note is worth only USD 0.10 (1999). This has presented practical and security problems. Disbursements require a volume of money that fills up several bags. As a result, LEAP tried to disburse loans in US dollars, which clients could then exchange on their own for Liberian currency. Repayments were made in Liberian currency, since each repayment was only roughly 1/16 of the disbursed amount and thus presented lower problems of money “volume.” However, LEAP had to return to disbursing in Liberian currency, since exchanging the money into US dollars presented too many problems for clients. Most of the time, LEAP's vehicle was used to assist with transporting the funds to be disbursed. This modus operandi was not seen as ideal, however, and a more satisfactory solution needed to be found.

SWOT ANALYSIS

STRENGTH – The pastors of the church community banks express a profound sense of ownership in LEAP's activities.

They see the community banks as “theirs,” in the most positive sense of the term. They see the community banks as integral parts of their churches' ministries. The church-based aspect of this project has been useful in this regard. However, LEAP has always been careful that pastors not play too close a role, because experience elsewhere has shown them that when pastors act as promoters (disbursing and collecting funds) churches can actually be hurt rather than helped. However, although horror stories abound of churches being harmed by microfinance, LEAP's actions in Liberia appear to provide at least one case where the right combination of methodologies, practices and people has resulted in great benefits for churches, their members and their communities. They managed to find the right “balance” of church involvement. In addition, staff exhibited a strong commitment to integrating LEAP's goals of social and spiritual impact. Their style of service to their clients makes them sound more like pastors than credit and savings agents. LEAP's executive director attributes staff caring and concern to the fact that many come from social work backgrounds. However, much of this concern for people's well-being must also be attributed to his leadership by example, the criteria and means used for hiring promoters, and training given thereafter.

WEAKNESS – Like other MFIs, LEAP has often found that churches have little vision for outreach, preferring instead to limit the community bank services to its own members.

OPPORTUNITIES – The current more stable social situation in certain areas may give a higher level of confidence to traditional microfinance donors more oriented to support LEAP in development-oriented programming.

THREAT – Conflict-prone areas have problems with their client base and funding; medium-sized programmes, with relatively few staff, run a large risk if they are excessively dependent on one leader. LEAP has been privileged to have a very capable executive director, but would be in a precarious position if he left. In the case of LEAP, the danger of too much dependence on the director is compounded by loose governance and inadequate supervision by LEAP's parent organizations, Access Liberia and the AEL.

BACKGROUND

The Grassroots Gender Empowerment Movement (GGEM) was initially established in 1979 as a Family Life Education Centre (FLEC) with a focus on the promotion of an integrated approach to family life values based on human sexuality.

In 1993 the organization became more gender sensitive and its focus was shifted to improvement of gender and socioeconomic relations in respect of women's position in deprived communities especially through support for the entrepreneurial poor. Since then until 2007 the organization with funds from Cordaid Netherlands implemented the "Gender Grassroots Small Enterprise Loan Operations and Community Training" Program in the Western Area, Port Loko and Moyamba Districts. This programme consisted of both community development and micro credit activities in one programme.

In line with a strategic plan GGEM now operates two departments; the Community Development Department and the Microfinance Department with separate financial and accounting systems. In 2008 GGEM secured funding from Cordaid Netherlands to support both departments. A Resident Technical Assistant was also hired by Cordaid on contract for one year to assist in putting the appropriate systems in place for the Microfinance Department and guide the process of transforming in to a Microfinance Institution. Since 1st January 2008 up to date, it has been and is still providing microfinance services through a separate microfinance department and produces separate Financial Statements and Portfolio Report. With assistance from a Resident Technical Advisor, it has developed Credit Manual, Finance Manual, Internal Control Manual and Human Resource Management & Development Manual that are now being implemented. GGEM is now in the process of registering a separate Microfinance Institution namely GGEM Microfinance Services Limited. GGEM, as an NGO MFI needs as part of its registration requirement to submit report to the Ministry of Finance and Economic Development (MoFED). By 31st December 2008, it has two branch offices located in Freetown and Moyamba with 18 employees committed to make as a viable MFI. Most of the clients are petty traders. GGEM has also recently started to provide agricultural loans to farmers.

TYPES OF LOANS

GGEM provides Group Loans, Individual Loans, Agriculture Loans and Wholesale Loans. It collects an up-front service charge of 1.5% of the loan amount in the Group Loan, Agriculture Loan and Wholesale Loan whereas 2.0% of the loan amount is collected from individual loans. All loans are given to clients with an interest rate of 36% per annum. Most loans are given for 6-month period and therefore attract 18% interest. To minimize the potential risk GGEM collects up-front cash collateral of 15% on Group Loans and Agriculture Loans whereas it collects a upfront cash collateral of 25% on Individual Loans and Wholesale Loans. A 3% fine is applied for all amounts that are past due for payment.

PROFILE OF BORROWERS

Having USD 255,470 as total loan portfolio and 3,114 borrowers the average loan balance per borrower is USD 87. It is important to mention that 72% of the borrowers are women and more than 70% of the loans are given to solidarity groups. Only 277 people received their loan individually.

FUNDERS

GGEM began with a fund of just USD 5,000 for micro-credit from the United Nations Capital Development Fund and has demonstrated its capacity to recover loans at a rate of interest that appears to be sustainable using the group solidarity method. Their revolving fund initially had grown beyond the original amount through intensive management of the loan portfolio and training of borrowers.

BACKGROUND

Microfinance services have been introduced in Sierra Leone by the government after peace resolution through various wings of government offices. The government programme Social Action for poverty Alleviation (SAPA) initiated the micro finance programme through NGO, Community Banks. SAPA provided both loan fund and operating cost to implementing partners. Community Empowerment and Development Agency (CEDA) also worked with SAPA and served seven Chiefdoms and Bo Town in the District, Southern Province of Sierra Leone.

CEDA was registered as an indigenous nongovernmental organization in 1994 at the Ministry of Development and Economic Planning (MODEP), Sierra Leone and commenced micro-credit services in 2002 in Valunia Chiefdom in the Bo District. Initially, it focused on Agricultural Activities, and gender empowerment in Bo and Kenema Districts. The programme was initially Lunia Agriculture and Rural Development project (LARDEP). LARDEP went through restructuring building up its institutional capacity to expand its services to cater for more beneficiaries and communities, meeting the demands of the Ministry of Development and Economic planning for Registration as a National Non-Governmental Organization. LARDEP with the consent of the Board and members was re-named as CEDA. It worked with the government programme SAPA which supported CEDA to run micro-credit programme for rural poor especially women micro-entrepreneurs.

CEDA, as an NGO, received approval from MODEP for micro-credit services. CEDA was permitted to provide micro-credit services for its group members and individual clients. By 31st August 2006, it had one branch office with 10 employees serving 1,122 active group members and 694 loan clients. CEDA had a strong development plan for 2007-2009 with a goal to expand its services and network of clients and partners.

VISION

The vision of CEDA is to become a well-established micro-finance institution that provides economic support to the poor, thereby enabling them to equally participate in development process, become stakeholders and decision makers in their communities through self-employment and social awareness.

GOALS

By the end of 2009 CEDA reached 4,532 micro-entrepreneurs with potential and financial viability by adopting proven delivery mechanisms.

The primary goal for year 2013 is to achieve 12,500 micro-entrepreneurs; promote women empowerment through social awareness-raising campaigns and foster unity and collaboration among themselves; and develop a well-established and managed institution in Southern province of Sierra Leone.

LENDING METHODOLOGY

CEDA provides its lending services using Group Solidarity Lending methodology with 10% of loan amount as cash collateral. In addition to its goals, CEDA has adopted a series of operating principles for its group solidarity lending services, which include:

- Focus on petty traders (micro-entrepreneurs).
- Maintain simple loan process.
- Seek homogeneity of group members and collective group liability.
- Require 10% of case collateral of requested loan amount.

STRATEGIC ALLIANCES

CEDA has established strategic alliances with the following international and national organization: UNCDF, UNDP, KfW Germany, Cordaid Netherlands through Micro-finance Investment and Technical Assistance Facility (MITAF), Sierra Leone. MITAF provided grants for on-lending fund, purchase of fixed asset and to meet operational cost.

National Commission for Social Action (NaCSA), Microfinance programme, Sierra Leone NaCSA, MFP provided on-lending fund and training and capacity building support.

SALARIES

Loan officers are paid on average Le 650,000 (USD 127) per month. This includes basic salary, allowance and 10% NASSIT1 Tax (of base salary) contribution by CEDA. The Accountant, MIS Officer and Credit Officer make about Le 1,000,000 (USD 333) per month. CEDA has policy to provide annual increment of 10% of base salary to its staff whose performance is satisfactory. The salary projections for next three years are based on the 10% annual increment.

PRODUCT AND PRICING

At present, CEDA offers one group guaranteed loan and individual loans. CEDA provides its micro-credit service based on solidarity group lending methodology. Before providing credit services, CEDA conducts potential client assessment to identify the target clients. After identification of potential clients, CEDA informs them to form a group so that CEDA officials can conduct a one-day orientation programme about CEDA's process and procedures. If the group satisfies CEDA's operational and lending criteria, the group will be formally approved by Credit Manager/Branch Manager. Once a group is formally approved, it will be registered in MIS and they can apply for loan. CEDA does not provide loans to those clients who want to spend the money for other purposes than business. In this case, the Loan Officer should reject the loan, even if the business has an adequate paying capacity.

PRODUCT NAME: BUSINESS LOAN

This loan is disbursed to a solidarity group consisting of 5 to 10 men or 5 to 10 women members but mixed groups are also allowed. A group must be recommended by the Branch Manager (Branch Manager, MIS manager/officer and Operations manager). Group bylaws are required to govern the group's behaviour and the management of savings. These must be reviewed and approved by the Branch Manager. Group loan contracts are made between CEDA and the entire group with each group member signing the contract and guaranteeing the entire loan.

LOAN SIZE ~ A minimum amount per group member is Le 400,000 for all cycles, but for an individual is Le 1,000,000.

For all groups the actual amount disbursed to clients should not exceed the limits presented below.

New group members, who join an existing second or higher cycle group, can only request loan amounts listed for the standard first cycle.

Credit/Branch Managers are responsible for not exceeding the appropriate amounts. Accountants are responsible for verifying that the loan amounts do not exceed the amounts limited for each particular loan cycle.

TERMS ~ The loan term for all cycles is 6 months. Repayments are made in equal monthly instalments. Regarding loan amounts equal to or greater than Le 800,000, if the group wants to repay their loan over a period of more than 6 months, CEDA can increase the loan term up to 12 months, but all other terms and conditions remain the same. If a group is in breach of contract, CEDA can cancel the contract and call the loan. In this case, the total loan (principal plus interest due up to that point) must be repaid.

INTEREST RATE ~ The interest rate is a flat 2.5% of loan amount per month for all cycles.

SERVICE FEE ~ CEDA collects 1% of loan amount as service fee at the time of loan disbursement.

PENALTY ~ CEDA charges 0.5% of loan outstanding balance amount per day as penalty for the delinquent clients.

PAYMENT DATES ~ Payment instalments commence exactly 1 month after the loan has been disbursed. Payments due to CEDA must be made to the Cashier; the payments should be made by the Group Leader or Treasurer but can be submitted by another group member. CEDA Loan Officers will not accept individual payments from group members. Accountant will sign in passbook of clients once the Cashier received the loan instalment.

RESCHEDULING OF LOAN ~ Loan cannot be rescheduled or refinanced.

EARLY/PRE-PAYMENTS ~ The clients can make prepayments, but they need to wait until the maturity date if they want to increase their loan amount. Regarding interest collection, the client must pay the remaining balance of interest that was agreed at the time of signing of the loan agreement.

PRICING

CEDA's interest rate aims to ensure long-term financial sustainability and is determined by costs, competition and what the market will bear (clients' willingness/ability to pay). Rates are equally justified by clients' lack of access to credit through formal financial institutions. The commercial banks at Sierra Leone require fixed asset collateral equal to or more than 200% of the loan – clearly out of reach for the poor, the process is bureaucratic, and the size of the loan is targeted to larger borrowers. For most, the only alternative is moneylenders who request collateral and have effective rates of interest in excess of 100% to 200% per annum, which makes their services inaccessible for the majority of CEDA's target clients. CEDA's policy is to revise the interest rate as necessary in light of changes in competition, inflation, the economic climate, as well as the need to cover operating costs and generate revenue for expansion. At present CEDA charges 2.5% of loan amount per month and 1% service fee as upfront collection. Recently, effective from August 1, 2006, CEDA has revised its service fee. Previously, it was Le 2,000 per person now it is 1% of loan amount.

CEDA's effective interest rate is derived using the following formula:

- $[(\text{Administrative Expense} + \text{Loan Loss} + \text{Capitalization Rate} + \text{Commercial Costs of Funds}) / (1 - \text{Loan Loss})] - \text{Investment Income}$. This calculation is the same one recommended by Consultative Groups to Assist the Poor (CGAP) (CGAP, *Occasional Paper*, 1, 1996). This formula yields an effective interest rate of 54.86% or a flat monthly rate of 2.5% and 1% service fee.

MONITORING AND INTERNAL CONTROL SYSTEM

CEDA has recently finalized a monitoring internal control manual. In the past, CEDA faced a serious fraud problem with its staff. Four of its staffs were involved with fraud. That resulted in a sum of Le 28 million in fraud during a 4-month period in 2005 (September to December). Because of the lack of an effective internal control system, the executive director could not detect the fraud case on time. Because of this incident, CEDA is now quite alert about fraud and was able to develop an internal control system.

The primary objectives of a monitoring and internal control policy of CEDA are to verify the efficiency and effectiveness of operations, to assure the reliability, completeness and timeliness of financial and management information, and to comply with applicable laws and regulations in Sierra Leone. Monitoring is done at various levels by the loan officers, branch/credit Managers, the MIS officer and executive director.

The loan officer of CEDA is responsible for daily monitoring of all clients and immediately responding to late payments. A loan officer should spend at least 60% of his or her time out of the office and in the markets. The purpose of monitoring is to help advise and provide assistance to the solidarity group members and build open and trusting relationships.

The credit/branch manager is responsible for overall management of branch. S/he monitors the field operation, finance and MIS team of his/her branch. Regarding field operation, s/he is responsible for the loan officer's complete and accurate transfer of information and loan policies and procedures to clients; that the loan officers' clients adhere to loan requirements and that the loan officers satisfactorily complete their job. The monitoring visits also allow credit/branch manager to assess the level of client satisfaction with services. The branch manager conducts his/her monitoring visit in the following manner:

- Visits to solidarity groups can be planned or unplanned. Most visits should be unannounced and all solidarity groups to be monitored should be chosen randomly. The branch manager visits at least 10% of total group under his/her branch;
- Meet all members of same group;
- Record all observations on the Supervisor's Monitoring Checklist;
- Give emphasis on the methodology, group by-laws and proper policies and procedures within the solidarity group;
- Detect any observations and issues that need to be discussed, listen to group members, take notes, and summarize them to generate new ideas or resolutions to problems;
- Observe whether the record keeping is correct and up to date;
- Determine whether members are attending monthly group meetings and making their loan repayment on time, and if not then find out the reasons why;

- Observe whether members are satisfied with the operations of a solidarity group;
- Observe how the members are using the loans, try to investigate whether one member is using others' loan or not.

The MIS manager/officer is responsible for monitoring the data/information received from loan officers. By conducting field visits, s/he could listen the clients' perception towards CEDA's financial services, could verify the data, and could detect problems. S/he uses the same Supervisor's Monitoring Checklist while conducting field visits. The MIS manager/officer visits at least 5% of total group of the branch and follows the process mentioned above. The executive director is responsible for monitoring activities in all branches to provide guidance and support as well as ensure compliance with policies and procedures. He makes random and unannounced visits to solidarity groups as often as possible. The executive director prioritizes his visits to monitor and assist solidarity groups that need extra attention with management, operational or repayment problems.

CEDA at present, has no internal auditor. CEDA has planned to hire outsiders to conduct semi-annual internal audits at the head office and branch office. The executive director is now responsible for the crosscheck of accounting transactions done by the administration and finance unit.

EXTERNAL AUDIT

Because of lack of microfinance external auditors in Sierra Leone, the MFIs are not being externally audited. During this planning period, CEDA will conduct its annual external audit from audit forms. It has conducted its first external audit for year 2006 on January-February 2007.

It is expected that the scope of the external audit includes an analysis and verification of the financial statements, loan contracts, pass books and verification based on random sampling that loans & savings are real, and certification of the financial statements.

LIQUIDITY MANAGEMENT

CEDA has made a policy to keep 20% of loan portfolio outstanding as cash and cash equivalents. Out of this amount 2% will be in vault and 18% will be in commercial banks. The cashier is the principal person to manage petty cash and cash in vault. During this planning period, CEDA wants to open a new branch at Moyamba district. For this branch, funds will be transferred through servicing banks and branch manager and accountant will have full authority to manage this fund. But CEDA head office at Bo Town will closely monitor and will ask daily cash and cash equivalent balance report from the branch manager through telephone or, if possible, e-mail. CEDA head office staff executive director and finance manager will conduct scheduled and unscheduled visit to monitor the actual situation of that branch.

FUNDING SOURCES AND REQUIREMENTS

CHALLENGES

CEDA, a small MFI with few experienced staff, faced a problem of fraud in 2005. This resulted in a stop of grants from donors. At present CEDA is developing its operational system with the help of residence technical advisor. As of 31st August 2010, CEDA has been successful to bring its portfolio-at-risk below 5% (Actual 3.17%) and wants to continue with a strong delinquency management system in place. Some of the key financial challenges that need to be addressed during this planning period include: the lack of a proactive resource generation and management plan; the need for better project cash flow and prepared resource generation plans; the need to improve the overall management of its assets and liabilities; little financial management experience of the executive director and accountant and the need to train them.

OBJECTIVES AND TARGETS

During this three-year planning period, CEDA plans to improve its resource generation and management capacity, strengthen accounting and financial control systems and revise its interest and fee structure, if necessary, to achieve its sustainability goals. The specific targets are as follows:

CEDA expects to mobilize major donated resources during this planning period. CEDA hopes to get major funding support from its existing donor MITAF (UNCDF, UNDP, KfW and Cordiad). CEDA will also explain its business plan to other INGOs, bilateral and multi-lateral agencies to get more funding for expansion of programme.

BACKGROUND

Lift Above Poverty Organization (LAPO) is a community development microfinance institution focused on the empowerment of the poor and the vulnerable. LAPO was founded as an NGO in 1987 by Mr. Godwin Eseiwi Ehigiamusoe, then a Rural Cooperative Officer. He identified the lack of credit as a major obstacle to the full realization of the potentials of the poor.

As LAPO transformed into a microfinance institution in 1990, it incorporated Social Development Programmes as a major component in sustaining organizational goals. LAPO Programme activities included gender sensitization aimed at reducing the level of gender inequity and social exclusion and health awareness activities initially centred around Reproductive Health and Child Survival, and recently on prevention, care and treatment of HIV/AIDS.

In 1995, LAPO became two semi-autonomous institutions: LAPO fund, which implements LAPO's massive microfinance programme, and LAPO Development Centre, which implements the social empowerment programmes. LAPO is offering a wide range of activities starting from the training of staff and beneficiaries to post-monitoring and evaluation of its activities.

GOAL/OBJECTIVES

LAPO seeks to empower the poor to break out of the grip of poverty. Specifically LAPO seeks to:

- ~ Enhance income-generating capacity of the poor through access to flexible financial services
- ~ Embolden poor women through self-esteem enhancing programmes and promotion of gender equity
- ~ Empower Community Based Organization (CBOs)

MICRO-CREDIT PRODUCTS

REGULAR LOAN ~ Obtained by members through their groups for income generating purposes.

ASSET LOAN ~ Meant to promote ownership of income generating assets among members.

FARMING LOANS ~ Disbursed mainly for farming activities of members. Disbursement is serial and repayment modified to reflect the peculiar nature of farming activities.

FESTIVAL BUSINESS LOANS ~ Disbursed in the months of festivities to enable members' to benefit from the boom in business activities during the period. It is an innovative product aimed at responding to the financial needs of clients during the festive season.

CREDIT-FOR-SHARES ~ To assist poor people acquire shares in profitable companies and become equity owners.

ENTERPRISE DEVELOPMENT LOAN SCHEME (EDLS) ~ A responsive product targeted at the owners of small and medium enterprises.

KIVA LOANS ~ Just like the regular loan with fixed loan duration of eight months.

MID-TERM LOANS ~ An innovative product introduced to clients in order to reduce the waiting period to zero and increase their cash flow thus imparting positively on the liquidity situation of the client's business.

SAVING PRODUCTS

Savings products are to assist members to gradually build their capital with different savings. LAPO provides opportunities for capital accumulation through savings for clients as follows:

REGULAR SAVINGS ~ Compulsory for clients. It affords the clients the opportunity to build up savings for the next higher loan stage. This is in line with building the 10% required to access the next higher loan. This can be withdrawn if clients want repeat loan stage or wishes to obtain a lower loan.

FESTIVAL BUSINESS SAVINGS ~ Enable client to build capital to support their business to meet expenses associated with the festive period.

GOLDEN SAVINGS ~ Allows clients to deposit substantial amount of money without withdrawal for a minimum of 6 months. The interest paid to clients' deposit depends on the duration of the deposit.

The basic unit of the organization is a LAPO Group of 30 clients. A minimum of 10 members is required to form a union. These groups are self-selecting and have leaders and secretary.

LAPO BRANCH

An average branch has a manager and four or five field/credit staff. A LAPO branch supervises between ten and sixty groups. Leaders of groups under a branch constitute a branch council with elected leaders and a branch manager as the secretary. The branch council meets twice a year. Five to six branches are supervised by an area manager.

LAPO Academy for Microfinance and Enterprise Development (LAMED) is subsidiary of LAPO and provides a wide range of services for training the microfinance institutions staff. They provide the following courses:

- ~ Basics of Microfinance
- ~ Nature of Microfinance Clients
- ~ Business Planning in Microfinance
- ~ Service Delivery in Methodologies
- ~ Branch Management
- ~ Basic Human Resources Management and Appraisal
- ~ Ownership and Governance of MFIs and Microfinance Banks
- ~ Essentials of Leadership
- ~ Methods of scaling Up MFIs Operational Strategy
- ~ Advance Loan Officers' Training on Branch Portfolio Management
- ~ Product Development and Diversification
- ~ Market Research
- ~ Designing Savings Product
- ~ Designing Lending Methodology
- ~ Effective Monitoring and Fraud Detection
- ~ Risk Management
- ~ Customer Services
- ~ Impact Assessment
- ~ Delinquency Management
- ~ Social Performance Management

LAPO is dedicated to the training of its own clients as well. Its main mission is called Micro-Investment Support Services (MISS). As it is stated on the LAPO website: "Micro Investment Support Services strongly believes that, money is a waste in the hands of an untrained and unskilled client. With this mindset, MISS organizes pre-loan training for all her clients at every loan stage. The purpose of these training is to equip clients with basic and modern skills of accountability and total maximization of the funds accessed. The organization believes that one of the ways of ensuring prompt repayment from clients is by effectively training them.

MISS trains her clients on how to utilize loans towards what would be beneficial to them and the organization too. Clients are trained on how to conduct their businesses with a touch of courtesy and civility.

The rationale and impact of these training to clients, is to equip, sharpen and enhance their business skills in the context of changing market dynamics in the micro business arena in particular as well as the macro business world at large.

MISS believes that in attaining the Millennium Development Goals (MDGs) of the United Nations in 2015 towards the eradication of poverty, the poor at the bottom of the pyramid must have unregulated access to micro credit with proper training."

BACKGROUND

BRAC is one of the biggest development NGO's in the world. Based in Dhaka, Bangladesh, BRAC was founded in 1972 as a relief agency but has since grown to serve the rural poor as a bank, a technological institute, and a university. Today, the organization operates various microfinance and poverty alleviation programmes in over nine countries across Asia and Africa, with an estimated reach of over 110 million people.

BRAC has a comprehensive development approach, which includes micro-credit, education, healthcare, social empowerment and legal awareness. Starting operations in Sierra Leone in 2008, it became fully operational in 2009. BRAC in Sierra Leone currently employs sixty local Sierra Leoneans and a handful of Bangladeshis. The office is based in Freetown, but there are local branches in twenty towns. Operations started in Liberia in 2008, as well.

ECONOMICS AND MF

BRAC has longstanding experience in microfinance, starting in providing small loans to poor people in Bangladesh in 1972. Now the focus is solely on women and village organizations.

BRAC's approach to microfinance involves providing collateral free credit and saving services at the doorsteps of its target population – the landless poor, marginalized farmers and vulnerable small entrepreneurs. In addition to the microfinance programme, BRAC has what is called the credit-plus approach, which means in addition to providing loans and training, the organization has developed an integrated set of services that work to strengthen the supply chain of the enterprises that its membership invests in, giving it access to quality inputs and support in marketing its products. All its micro-creditors have access to all its other development services.

MFI PRODUCTS

BRAC has two microfinance products that it concentrates on:

MICROLOANS ~ These are loans ranging from USD 50-700, given exclusively to individual women who are serviced in a group setting, namely the Village Organization (VO). The VO consists of 30-40 women coming together. The VO acts as an informal guarantor by creating peer pressure for timely repayment. Borrowers repay through weekly instalments and deposit savings during VO meetings, held every week in a borrower's courtyard. Microloans are generally used for small operations in poultry, livestock, fruit and vegetable cultivation, handicrafts or rural trade.

MICROENTERPRISE LOANS ~ These loans, which range from USD 700-7,000 are given to both male and female entrepreneurs to support and expand existing small enterprises which are too small to qualify for credit from commercial banks. Borrowers generally use the microenterprise loans to finance shops and small-scale manufacturing activities and repay on a monthly basis.

OPERATION OF MFI

BRAC is a huge development organization. It has 110,000 paid employees and has a USD 482 million annual budget. In both Sierra Leone and Liberia, it has a handful of staff from Bangladesh. It employs 91 locals in Sierra Leone and 161 in Liberia. In addition to this, it has a few hundred community-based volunteers in both countries. When BRAC started in Sierra Leone and Liberia in 2009, it opened twenty branches across the countries, with the aim of opening another twenty by the end of the year. In Sierra Leone, the branches are located mainly in and around the Freetown and Port Loko area.

BRAC has also set up a branch of its Trainings Division in Sierra Leone, the aim of which is to develop the capacity of all BRAC employees as well as its volunteer workforce. The Trainings Division offers courses in topics such as Strategic Planning, Resource Mobilization and other development issues.

Part of the organizational structure of BRAC is its Research and Evaluation Department that regularly publishes academic papers on research into development issues and the successes and failures of its own programmes.

The overall budget for the pilot project in Sierra Leone and Liberia was USD 15 million. The funds for the project came from the Soros Economic Development Fund, Open Society Initiative for West Africa, Omidyar Network and Humanity United. It is funded through a combination of grants and equity.

BACKGROUND

The Salone Microfinance Trust (SMT) was originally started as the Christian Children's Fund - Sierra Leone in 2002. It was established as a component of the United States Agency for International Development (USAID) funded Skills Training and Employment Generation (STEG) project. STEG was focused on assisting the reintegration of ex-combatants back into their community. Part of the STEG programme was a microfinance initiative that separated into its own independent programme in 2006 and became the Salone Microfinance Trust.

MISSION

- ~ Support micro-entrepreneurs to strengthen and expand their businesses
- ~ Assist individuals to create their own livelihoods
- ~ Help micro-entrepreneurs build their capacity to manage businesses
- ~ Help create employment in rural areas
- ~ Recruit and retain committed, honest and qualified staff who recognize the value of clients' needs
- ~ Increase target area's independence from humanitarian assistance

VISION

"To be a financially self-sufficient institution, with an outreach that is broad, deep and having a significant impact on the lives of the economically active poor and their families to which it serves".

MF PRODUCTS

SMT has four specific loan products; group loans, individual loans, salary loans and agriculture loans.

GROUP LOANS ~ SMT uses the group solidarity methodology in which clients form groups of 4-6 people and guarantee each other's loans. This lending methodology focuses on graduating clients in stages to larger loan amounts.

INDIVIDUAL LOANS ~ Each individual member who completes the sixth cycle of group loans is graduated to individual loans based on their credit history with SMT, business volume, and willingness and client's capacity to repay the loan. The individual loan is also tailored to meet the credit needs of small and medium entrepreneurs.

SALARY LOANS ~ Are given to salaried teachers, nurses, police force members and others from higher institutions of learning. The purpose of the loans is mainly for paying school fees, purchase of building materials, furniture, equipment, agricultural investment and trading.

AGRICULTURAL LOANS ~ SMT provides group loans to subsistence farmers in Koinadugu and Bombali districts. The loans are mainly for purchasing seeds, fertilizer, marketing and labour. Just as with the group loans product, the solidarity group method is used for agriculture loans (groups comprise 5-7 members).

OPERATION OF MFI

To achieve its depth of outreach objective, SMT primarily has targeted poor women and men who are active in informal sector trading, agriculture production and other basic services. In most cases, women have demonstrated strong demand for credit and have proven their ability to produce enough regular profit to sufficiently repay loans with market interest rates. Many of these women, and other present and prospective clients, are also small farmers and considered part of the rural population who are currently engaged in commerce. These people, due to lack of skills, appropriate technology and basic services are forced to find other sources of income for their livelihoods.

Geographically, SMT is operating in Bombali, Koinadugu, Tonkolili and the Western Rural districts, focusing in the market centres and villages. Based on SMT experience and informal discussion with clients, and backed up by a market analysis done by FINCA in April 2005, there is great unfulfilled need for financial services in Makeni and Magburaka and its surrounding villages. In addition to its headquarters office in Bombali, SMT operates two branch offices, one also in Makeni and the other in Koinadugu.

SMT has a strategic partnership with the Kiva organization, and Shine and Sierra Leone. SMT is also a member of the ChildFund International (CFI) Global Microenterprise Development Network.

2.3 ~ CURRENT MICROFINANCE SITUATION AND POLICIES

The government of Sierra Leone has been implementing the National Microfinance Policy since 2003. The microfinance sector boomed rapidly for the past 7 years. In 2003, it was estimated that there are fewer than 15,000 clients that had access to financial services (MITAF 2009); today, it is estimated that there are over 40,000 people who have access to financial services, where more than 50% of them are engaged in microfinance services. There are eleven 11 MFIs providing loan and saving services all over the country, with an estimated USD 1.3 million Gross loan portfolio (MixMarket 2010).

2.3.1 ~ THE MICROFINANCE POLICIES

The ten-year civil war in Sierra Leone has caused a dramatic decline in social and economic capital, pushing the country toward the bottom of the United Nations' Human Development Index (MITAF 2009). In order to change the situation, the national government of Sierra Leone approved a National Microfinance Policy in 2003 to guide all microfinance activities in Sierra Leone. Four objectives have been identified (MITAF 2009):

- ~ 1. To stimulate economic activities in the rural areas thereby enhancing general economic development and alleviating poverty;
- ~ 2. To educate end users in microfinance;
- ~ 3. To assist end users to upgrade their productive activities and increase production levels and incomes;
- ~ 4. To instil into end-users of microfinance the tenets of financial discipline and management;

The national government together with Bank of Sierra Leone also identified four main components of micro-finance, which include micro-credit, micro-savings, micro funds transfer (banking system) and micro insurance.

Stakeholders set responsibilities in the implementation of microfinance involve governmental and NGOs, credit-only MFIs, saving-mobilized MFIs, donors and commercial banks. Whereby, the government provides an enabling environment by ensuring political stability and improving the legal framework for commercial activities. There are no direct subsidies from the government to the microfinance sector (UNCDF 2009). NGOs provide microfinance services from the grassroots level with respect to Prudential Regulations; credit-only MFIs deliver credit as the only microfinance product; savings-mobilized MFIs set deposit taking as the main objective according to the Other Financial Services Act 2001. Donors invest funds in MFIs to enhance capacity building as well as to ensure sustainability, and commercial banks expand their services to rural areas and the un-bankable population.

Actions have been taken in terms of building up a microfinance policy framework, capacity building, writing up a national microfinance project document and national microfinance sensitization programme.

2.3.2 ~ THE SUPPLY OF MICROFINANCE IN SIERRA LEONE

3.3.2.1 ~ THE SUPPLIERS

According to the MIXMarket and UNCDF's information on microfinance sector in Sierra Leone (MIXMarket 2010; UNCDF 2009), there are several formally registered MFIs with the nature of a for-profit company, NGO and banks. The name and nature of organizations are:

NATURE OF ORGANIZATION	NAME OF ORGANIZATION
Local NGO	Hope Micro; Association for Rural Development (ARD); Community; Empowerment & Development Agency (CEDA); Salone Microfinance Trust (SMT); Grassroots Gender Empowerment Movement (GGEM);
International NGO programs	Bangladesh Rural Advancement Committee (BRAC); CARE Village Savings and Loan programme
For-profit MFIs (Limited Liability Companies)	Finance Salone; Lift Above Poverty Organization (LAPO)
Bank	ProCredit Bank; Marampa Masimera Community Bank; Mattru Community Bank; Segbwema Community Bank; Yoni Community Bank

[SOURCE: UNCDF 2009].

In order to provide an overview of suppliers of microfinance, the table above summarized major MFIs operating in Sierra Leone as well as notable MFIs in similar neighbouring countries.

Most of the MFIs are independently operating NGOs, with the provision of both individual and group loans. Investment in business is the major purpose of credit, while other purposes include agricultural-use and other consumptions, such as everyday expenses, education, housing and health care. Major target groups are petty traders who are considered unworthy by commercial banks. In addition, MFIs tend to favour women as clients for the sake of women empowerment.

2.3.2.2 - MICRO-CREDIT PRODUCTS, TERMS & CONDITIONS

All of MFIs' micro-credit products are based on group loan scheme. Individual loans are also provided but with strict conditions. The peer pressure over loan borrowers in a group will help to reduce financial risks. When a client is considered reliable in repaying loans, s/he will be granted a larger amount and longer repayment period to fully meet his or her needs.

GROUP LOAN

The structure of a group loan scheme is based on principles of Rotated Saving and Credit Associations (ROSCA). A ROSCA group usually consists of 5-10 members, with a leader and a treasurer. The members meet on a periodic basis when each of them pays in an agreed amount of money; the money in total is the amount borrowed. The loan is then given to one member, on a rotating basis, until all members have enjoyed it. Depending on their performance, the loan can be rotated in different cycles, the size of the loan and the repayment period will also be upgraded according to the maturity of the group (Aghion and Morduch 2005).

Group loans, different from individual loans, are not specifically given to business or agriculture. It means that clients can use them for any producing or consuming purpose.

The size of a group loan varies on different ROSCA cycles. It usually starts from USD 50-75, with a period of 6-7 months maturity. If the group performs well in repaying the loan, the size of the loan can be increased to USD 250-700 for a period of more than 6 months (Finance Salone, LEAP, BRAC, 2010). Some MFI can even provide a loan up to USD 1000 (CEDA, 2010).

The interest rate of group loans is relatively low compared to individual loans in accordance to the low risks. A flat interest rate of 2.5% is charged to group members, together with a 1% fee on risks and operations (Finance Salone, CEDA, 2010). The GGEM charges an annual interest rate of 36%.

The repayment period is determined by the size of the loan, in correspondence with the performance of a group. The usual repayment period is 6 months (Finance Salone, LEAP, GGEM, 2010).

The eligibility of group loan refers to savings only, since peer members can function as guarantors. All of the MFIs require a certain amount of cash deposit as collateral, which ranges from 10%-15% of the total amount of outstanding loans. Some MFIs also encourage clients to deposit voluntary savings, which are granted higher liquidity to withdraw (Aghion and Morduch 2005).

INDIVIDUAL LOANS

The purpose of an individual loan is mostly for business purposes. Some MFIs allow clients to use the loan for other purposes, but with higher eligibility.

The size of loans ranges from USD 350 to USD 700 for first-time clients (Finance Salone, BRAC); when clients have graduated from several loan circles, they are granted a higher loan amount as well as a longer repayment period. For instance, BRAC and Finance Salone can provide loans up to US\$ 5000-7000 to graduate clients.

The interest rate of an individual loan depends on the current inflation rate, operational risk and other finance risks.

In general, the repayment period for first-time borrowers should not exceed 12 months. For non-first time clients, it can go beyond 12 months (CGAP 2010).

The eligibility of individual loans is different from other types of loans. Generally there are three categories of loans: individual business loan, individual loan (without indicated purpose), and a salary loan. The eligibility of individual

business loans requires the client to have an independent business (Finance Salone, LEAP, BRAC, 2010), and the operation of business should be reputable within a certain period of time. The eligibility of individual loans requires clients to be able to graduate from several circles of group lending schemes (Finance Salone, LEAP, 2010). The salary loan scheme has a strict eligibility of formal employment, which means the borrower should be formally employed with a stable salary (SMT, 2010).

In addition, most MFIs require the borrowers to deposit 10-25% cash as collateral.

2.3.2.3 ~ CAPACITY BUILDING

In order to strengthen the MFIs operational activities and functions, MFIs need to hire experienced managers and provide training programmes for the staff in terms of management, personnel, financial operation and so on.

For the purpose of risk reduction, MFIs provide trainings to clients, usually on the field of entrepreneurial skills.





3 - CONCLUSION



T

3.1 - TARGET GROUPS

THE MANTRA PROJECT IDENTIFIED THE POOR HOUSEHOLDS AS THE MAIN TARGET GROUP, WHICH SHOULD INCLUDE 70% FEMALE CLIENTS.

3.2 - TYPES OF PRODUCTS

The analysis carried out through this study highlights that for a project intending to combine the provision of solar panels and the provision of micro-loans, it is more practical to employ both the group loan and individual business loan schemes. It is possible for the project to include solar power panels as one of the products, however the eligibility of such loans should be strict in order to assure the repayment rate. A savings scheme is also necessary to improve the loan economy. Group loan schemes can be arranged with 5-10 people. It is recommended that all of the group members should know each other, in order to strengthen peer pressure on repayment of the loan. The purpose of group loans can be either for generating income, or for consumption.

The eligibility of a business loan should include a certain amount of savings, evaluation of business performance and a co-signer.

A renewable energy loan to both groups and individuals should be provided depending on the volume of electricity needed.

A savings scheme would also be recommended as one of the instruments of implementing solar power panels. Saving can be organized in the form of both voluntary saving and group saving. Depending on the operation of the microfinance institution, a certain amount of the interest rate could also be put into saving products to increase competitiveness.

In consideration of repayment ability, the solar power panels can be financed in different ways according to the usage of electricity: if the solar power panel is used for income-generation purposes, the rate of return is high, therefore the potential beneficiaries can borrow micro-credit to finance it; if the solar power panel is used for consumption purpose, there will not be a dramatic increase in the beneficiary's income, it is better for them to use a micro-saving scheme to finance it.

3.3 - TRAINING

The installation and maintenance of solar power panels require technical knowledge from particular staff in the microfinance institution. A user manual should also be provided to beneficiaries. In addition, capacity building in terms of loan operation, knowledge on finance and operational management should be provided to local staff.

4.4 - ORGANIZATIONAL STRUCTURE

With regard to the organisational structure to be adopted, a local branch of the foreign MFI should be set up and the employment of local people should be preferred. Locals would have to be provided appropriate training so to gradually take the place of the originator of the project.

3.5 - LIMITATIONS

FINANCIAL RESOURCES

For projects not relying to the borrowing of money from the capital markets, fundraising would be the major task especially during the start up phase. The project would need to be designed to achieve a sustainable operational structure, and then seek to achieve financial sustainability in long term.





BIBLIOGRAPHY



PRESENTATION ~ POPULATION AND SOCIETY

- AFRICAN MICROFINANCE TRANSPARENCY (2010). *Transversal Analysis of MFI Performance in Africa - Third Edition* (Luxembourg: ADA/AMT).
- AGHION, B. A. D. AND J. MORDUCH (2005). *The Economics of Microfinance* (Cambridge, Massachusetts: MIT Press).
- BYSTRÖM, H. (2007). “Structured Microfinance”, *Journal of Structured Finance* 11(4): 26-38.
- CENTRAL INTELLIGENCE AGENCY, *Report 2009* (<https://www.cia.gov/library/publications/the-world-factbook/geos/sl.html> - Accessed 24 June 2010).
- COUNTRIES AND THEIR CULTURE, *Sierra Leone* (<http://www.everyculture.com/Sa-Th/Sierra-Leone.html> - Accessed 28 June 2010).
- CGAP (2010). “Does Microfinance Help Poor People?”, *About Microfinance* (<http://www.cgap.org/p/site/c/template.rc/1.26.11415/> - Accessed 12 July 2010).
- MITAF (2009). “The Microfinance Sector in Sierra Leone” (http://mitaf.esglobal.com/current/sierra_leone.htm - Accessed 3 May 2010).
- MIXMARKET (2010). “Microfinance in Sierra Leone” (<http://www.mixmarket.org/mfi/country/Sierra%20Leone> - Accessed 24 June 2010).
- ROGERS, DJD. (2004). *Micro Finance Programme Development Paper*, B.o.S. Leone.
- SPANDA FOUNDATION (2010). *Moving On. Sierra Leone Report 2009* (The Hague: Spanda Publishing).
- (2011). *Post-conflict Action & Microfinance in Sierra Leone* (The Hague: Spanda Publishing).
- UNCDF (2009). A. Duval and F. Bendu (eds), *Final Evaluation: Development of a Sustainable Pro-poor Financial Sector in Sierra Leone*, United Nations Capital Development Fund.

FINANCE SALONE

- ARC, *Annual report 2007* (http://www.arcrelief.org/annual_reports/Annual_Report_2007.pdf).
- FINANCE SALONE, *Profile for Investors 2004* (http://www.mixmarket.org/sites/default/files/medialibrary/20501.1028/Institutional_Presentation.pdf).
- MICROFINANCE CAPITAL MARKETS UPDATE - 6 (December) 2005 (http://www.themix.org/sites/default/files/MIX_CGAP_2005_12_MCM_v6.pdf).
- LINKS, *Promoting Linkages for Livelihood Security and Economic Development – Final Evaluation* (http://pdf.usaid.gov/pdf_docs/PDACN548.pdf).
- MIXMARKET FILES, *Finance Salone - Institutional Presentation* (http://www.mixmarket.org/sites/default/files/medialibrary/20501.1028/Institutional_Presentation.pdf).
- SLE DSPFS, *Final*, (http://www.uncdf.org/english/microfinance/uploads/evaluations/SLE_DSPFS_FINAL_0909_EN.pdf).
- UNDCF, *Newsletter* (http://www.uncdf.org/english/news_and_events/index.php?record=5 - Accessed 24 June 2010).

LEAP

- PERFORMANCE MONITORING FRAMEWORK, June 1999, *Key Historical Indicators and Projections*, <http://www.chalmers.org/resources/documents/workingpaper204.pdf>; <http://www.kiva.org/partners/141>; <http://leapliberia.com/>; <http://www.gdrc.org/icm/disasters/Developing2.pdf>; <http://fellowsblog.kiva.org/2010/05/12/dont-eat-the-money/>; <http://www.chalmers.org/resources/documents/workingpaper204.pdf>.

ENVIRONMENTAL FOUNDATION FOR AFRICA

- EFA, *Annual report for 2006-2007* (<http://www.efasl.org.uk/EFA%20Annual%20Report%202006-2007.pdf>).
- EFA, *Website* (<http://www.efasl.org.uk/> - Accessed 8 August 2010).

MAIL FOLK CENTER

- MFC, *Website* (<http://www.malifolkcenter.org/> - Accessed 15 May 2010).

POWER UP GAMBIA

POWER UP GAMBIA, *Website* (<http://powerupgambia.org/> - Accessed 24 June 2010).

RENEWABLE ENERGY GHANA

GEF, *Renewable Energy-Based Electricity for Rural, Social and Economic Development in Ghana project details*, (<http://gefonline.org/project/DetailsSQL.cfm?projID=333> - Accessed 12 April 2010).

SOLAR ELECTRIC LIGHT FUND

BOB FRELING, *Solar Blog* (http://www.bobfreling.com/cgi-bin/mt/mt-search.cgi?tag=Benin&blog_id=1 - Accessed 18 July 2010).

CHANGEMAKERS, *Website* (<http://www.changemakers.com/en-us/node/70652> - Accessed 4 June 2010).

JEAN-LOUIS REMILLEUX, *Earth from Above: The End of Oil*, SELF segment video (http://www.youtube.com/watch?v=Ca6qw5x_n-M - Accessed 7 August 2010).

BURNEY ET AL., "Solar-powered drip irrigation enhances food security in the Sudano-Sahel", in *PNAS* (<http://www.pnas.org/cgi/doi/10.1073/pnas.0909678107> - Accessed 26 March 2010).

RUTH AND HAL LAUNDERS CHARITABLE TRUST (Jan 14, 2010). (http://www.rhlct.org/newsmanager/news_article.cgi?sess=0f0112900071e3c65b31a3b366abafc6&news_id=14 - Accessed 9 August 2010).

WINNERS OF 2006 DEVELOPMENT MARKETPLACE (<http://go.worldbank.org/M5C4GZ3SF0> - Accessed 24 June 2010).

SELF, *Website* (<http://www.self.org/> - Accessed 4 April 2010).

SOLAR LIGHT FOR AFRICA

SOLAR LIGHT FOR AFRICA, *Website* (<http://www.solarlightforafrica.org/> - Accessed 29 June 2010).

SLIMS, *Solar Report* (http://www.solarlightforafrica.org/Solar_Light_for_Africa_What_We_Do_Where_We_Work_files/SLIMS%20Solar%20Report.pdf).

SUN POWER AFRICA

SUNPOWER AFRIQUE, *Website* (<http://www.sunpowerafrique.org/> - Accessed 1 June 2010).

KIRA BLOG, (founder) (<http://www.kirawithoutborders.blogspot.com/> - Accessed 24 August 2010).

SUNPOWER AFRIQUE, *Business plan report*,

http://www.sunpowerafrique.org/PDF/Home/SunPower%20Afrique%20Bplan_FINAL_March2010.pdf).

—, *Facebook page* (<http://www.facebook.com/pages/SunPower-Afrique/52677941699> - Accessed 3 April 2010).





SPANDA
FOUNDATION

Empowering Transformation

A TRANSNATIONAL NGO LEARNING ORGANIZATION FOR DEVELOPMENT AND COOPERATION

*Culture, Education, Health, Environment, Microfinance and Research
for the Sustainable Advancement of Peace, Knowledge and Understanding*

