

**Financial Institutions role in the uptake of solar lighting
In
Kenya**

- Models, Challenges, Recommendations

A report by the Lighting Africa- Women Initiative

February, 2013

Role Financial Institutions in Solar Lighting Uptake

Table of Contents

1	Introduction.....	5
2	Survey Findings.....	5
2.1	Challenges faced by FIs in promoting solar	8
	FIs reported the following as key challenges in disseminating solar lighting products:.....	8
2.2	Partnership with IFC Lighting Africa	9
	FIs expressed the following as areas that they would like support:	9
	Annex1: Financial Institutions solar profile	11
3	Profile of Financing Institutions	11
3.1	Faulu Advisory Services	11
3.2	Kenya Women Finance Trust Deposit Taking MFI	12
3.3	Adok Timo Microfinance Institutions	13
3.4	Eclof Microfinance Institution.....	14
3.5	Unaitas SACCO.....	14
3.6	Ecobank Kisumu	15
3.7	Molyn Credit Limited (MCL).....	16
3.8	FEDHA Link Credit.....	16
3.9	Micro Kenya.....	17
3.10	Milango Microfinance.....	18
3.11	Greenland Fedha Microfinance	18
3.12	KIVA /BrazAfric Partnership	18
3.13	CARE Group Savings and Loans (GS&Ls)	19

3.14	APHIAPLUS Western Kenya Project	20
3.15	WEDI Savings and Credit Groups	21

List of Abbreviations

AMFI	Association of Microfinance Institutions
BoP	Bottom of the Pyramid
CBOs	Community Based Organizations
Eclof	Ecumenical Church Loan Fund
FAS	Faulu Advisory Services
FI	Financial Institution
FKDTMFI	Faulu Deposit Taking Micro Finance Institution
GSLs	Group Saving and Loans
KBA	Kenya Bankers Association
KERUSO	Kenya Rural SACCOs Organisations
KIGA	Kenya Investment Groups Association
KTDA	Kenya Tea Development Agency
KUSCO	Kenya Union of Saving and Credit Organisations
KWFT DT	Kenya Women Finance Trust Deposit Taking
MSE	Micro and Small Enterprises
NGOs	Non Governmental Organisation
SACCO	Saving and Credit Cooperative Organisation
SMEs	Small and Medium Enterprises
VSLs	Village Savings and Loans
WEDI	Women Enterprise Development Programme

1 Introduction

Financial Institutions (FIs) have a central role to play in catalyzing the uptake of solar lighting among women as end-users and entrepreneurs. This is because they act as enabler of capital in a structured manner where the product consumers are unable to raise the upfront cost of the solar products taking into account the target market is the Bottom of the Pyramid (BoP). They have little or no disposable income due to stiff competition of financial resource with the basic needs. Therefore, it is fundamentally important to consider how financial institutions can be used as vehicles to catalyse the solar lighting uptake by women as consumers and entrepreneurs. Of interest are the FIs that are ready to offer micro loans ranging from USD 20 dollars and above.

For this study, the criteria for FIs selection was based on the following key parameters: they must be working in either of the clusters selected for study, that is, those actively working or have geographical spread in either of the cluster of study and have been in operation for not less than three years. The target regions of study are comprised of: Nyanza, Central (greater Mt. Kenya region), Coast and Nairobi. A total of 13 FIs participated in the survey and three special saving mobilising groups. Most of the MFIs surveyed had their head offices in Nairobi and branches spread across the rural Kenya except Adoktimo MFI that is based and operates in Nyanza and Milango MFI based and operates in the Coast Region. In addition, two NGOs CARE and APHIA PLUS working with Village Savings and Loans (VSLs) and Group Savings and Loans (GSLs) respectively were surveyed. In addition one local fund manager called Women Enterprise Development Programme (WEDI) based in Karatina was interviewed.

The key findings in this study reveal that most FIs serve more women than men who form a strong entry point in targeting their women clients as solar product consumers and entrepreneurs. The FIs demonstrated a strong appetite to work with women on value adding products given the necessary support as majority lack the technical and financial capacity. However, there still exists gaps that IFC Lighting Africa- Women Initiative can be able to bridge to transform the uptake of solar lighting products by women as consumers and entrepreneurs.

Discussions with FIs focused on determining their interest in participating in IFC lighting Africa program –Women initiative, understanding their current business models in use, opportunities and challenges in targeting women as primary solar lighting consumers and entrepreneurs.

2 Survey Findings

The findings reveal the following:

- i. **Interest in working with IFC lighting Africa:** All the FIs expressed interest to work with IFC Lighting Africa-Women initiative with the exception of Greenland MFI which recommended that IFC approaches their foundation called KTDA Foundation that is working on a cook stove program targeting their tea famers. All Financial Institutions work with women groups with the exception of Ecobank Kisumu whose preference is to work with larger women entrepreneurs and not women groups. The FIs pointed out that IFC Lighting Africa –Women Initiative’s strategic intervention will catalyse the uptake of the solar lighting products by women consumers based on an agreed targeted approach.

- ii. **Working with Women:** All the FIs surveyed had a strong working relationship with women with the exception of Greenland Fedha MFI whose female composition is estimated at 10% because the MFI serves tea farmers where 90% of tea farms are owned by men. Table one illustrates the composition of women to men served FIs is large. The finding is further strengthened by the same pattern in Village savings and loan groups and Group Savings. Women in both CARE GSLs and APHIAPLUS VSLs account for 80% of the membership, proving that there is considerable scope of working with women and especially facilitated organised groups that have ability to command a wider reach in rural areas.

Table 1: Financial institutions and ratio of women clients:

Name of financial Institution	Total number of members/customers	Number of women members	% of Women
ECLOF	40,000	24,000	60%
KWFT	600,000	600,000	100%
FMDTMFI	350,000	199,500	57%
ADOK TIMO	35,000	24,000	69%
Micro Kenya	13,000	6,760	52%
Greenland Fedha MFI	562,000	N/a	Approx 10%
Molyn Credit	15,865	9,678	61%
Milango Microfinance	9,190	4,870	53%
Unaitas SACCO	160,000	81,000	51%
Kiva ¹			

- iii. **FI Solar lighting opportunities:** A number of FIs interviewed had experience in working with solar suppliers/distributors. It was also found that most FIs work with one solar supplier limiting the consumers of the solar lighting products to particular brand they are promoting. This is mainly due to fear of products failure taking into account most of the FIs lack technical capacity to determine quality products as well as some suppliers lack of reliability due to lack of sufficient stock at all times. Hence a need to partner with recognized solar lighting suppliers as to meet the diverse needs of their clients. This offers an opportunity to intervene in order to give confidence to the MFIs. In addition, it is worth noting that, there is still a considerable scope to be explored taking into account only a handful of FIs are currently working with these suppliers as shown in Table 3 below. Most FIs package their solar loans under asset financing or micro leasing loans with the exception of KWFT and Faulu MFI who have a branded solar loan product.
- iv. **NGO based Savings and loans groups' solar lighting opportunities:** Both CARE and APHIA PLUS Savings and loans groups reported that their groups were ready to become micro dealers of solar products as well as consumers. These groups have large rural village membership and were ready to use their mobilized savings to purchase solar lighting products.

¹ Kiva is an MFI that uses internet platform and gives loans through secondary organizations. In Kenya works with Brazafric to provide solar loans to farmers cooperatives.

Table 2: Financial Institutions with Solar Portfolio

Name of financial Institution	Solar Portfolio	Would like to start a solar portfolio	Would not want to start
ECLOF	✓		
KWFT	✓		
FMDTMFI	✓		
ADOK TIMO		✓	
Micro Kenya	✓		
Greenland Fedha MFI			✓
Molyn Credit	✓		
Milango Microfinance	✓		
Unaitas SACCO	✓		
Kiva ²	✓		
Fedhalink		✓	

- v. **FI interest in solar lighting products:** Financial Institutions with solar portfolios were interested in growing their solar portfolio with help from IFC Lighting Africa through a targeted approach to women. Adoktimo Microfinance Institution, Opportunity MFI and Fedhalink are keen on starting a solar product loan portfolio while Greenland Fedha Microfinance reported that their foundation- Kenya Tea Development Foundation was better placed to handle a solar loan portfolio since they were working with a cook stove program.

Table 3: Solar suppliers/distributors working with Financial Institutions:

Financial Institution	Product Brand Name	Supplier/Distributor
Faulu (FAS), Eclof, Unaitas, Molyn Credit MFI, Milango	D.light solar products	Sollatek, Brazafric, Ecosmart
Faulu (FAS), KWFT,	STI 1, ST2	Suntransfer / Ecosmart
Faulu (FAS)	Toughstuff	Chloride Exide,
Faulu (FAS)	Power pack & Solar Taa	Smart Solar
Micro Africa,	Trony	Tronys
FAS	BBoxx	BBoxx
Milango	D.Light	Ecosmart

From the survey, the findings show that most of the FIs work with Lighting Africa certified solar suppliers except for FAS which also works with BBoxx supplier.

- vi. **Selection of solar lighting suppliers:** All the FIs with solar portfolios were approached by solar suppliers with the exception of Molyncredit who was referred to by a consultant who had information on IFC Lighting Africa program. It came out strongly that the FIs have been approached by solar suppliers to partner with them. None of the surveyed FIs demonstrated a defined solar supplier selection criterion.

² Kiva is an MFI that uses internet platform and gives loans through secondary organizations. In Kenya it works with Brazafric to provide solar loans to farmers' cooperatives.

2.1 Challenges faced by FIs in promoting solar

FIs reported the following as key challenges in disseminating solar lighting products:

- i. **Lack of consistent product supplies:** Suppliers' lacked consistent supply hence creating inconvenience to consumers who have applied for solar loans. This ends up making the loans more expensive as they have to start servicing it upon signing which results to loss of confidence on the solar lighting products as well increased possibility of loan delinquency and default.
- ii. **Lack of rural network of solar lighting service centres:** This makes the return time on faulty product long and costly for the consumers; majority of the suppliers have their service centres in Nairobi making the process a logistical nightmare. In the long run it erodes the consumers' confidence on the solar products and many of them end up going back to the usage of kerosene hence creating a cyclic effect. For example, an MFI disclosed that they were disappointed by solar suppliers for not responding to clients' grievances on time (solar lanterns repair or replacement). With the exception of Tronys which has partnered with G4S as their official courier; if a product has technical fault, the consumer notifies the distributor or the Tronys Company and the product is dropped at G4S collection centre for onward delivery to their offices.
- iii. **Cost of distribution:** On average the costs of transporting a solar lighting product to FIs clients is Kes300 (USD 3.5) which is a cost transferred to the clients. This in turn makes the product more expensive hence knocking out some would be consumers and entrepreneurs.
- iv. **Competition of solar loans with other loans products:** Most MFIs package solar loans as an "add on" loans, as preference is given to core MFI product loans. In some cases, MFI customers had to pay half of the core loan before accessing the solar loan further discriminating would be solar lighting consumers and entrepreneurs. In addition, due to lack of awareness on the benefits of the solar, it is considered as a secondary product hence it is not accorded the priority it deserves.
- v. **Competition with substandard products:** Due to lack of technical knowhow, it becomes very difficult for ordinary people to differentiate between quality and inferior solar products. Majority of consumers and entrepreneurs are keen on pricing and quality comes second hence they find themselves buying low quality products. This increases the failure of solar lighting setting a bad precedence that solar lighting does not work.
- vi. **Microfinance lending methodology:** the Microfinance Institutions using group lending methodology present a challenge to dissemination of solar products among their clients. This is because good payers if a group member is delinquent or in default even those with good repayment records are affected negatively- they are unable to access further financing from the MFI.

2.2 Support needs of Financial Institutions

FIs expressed the following as areas that they would like support:

- i. **Capacity building of FI staff:** FI staff involved in marketing of solar lighting products needs to be capacitated to have a better understanding of the solar products technically to be able to respond accurately to basic technical questions from the clients. The target group are the marketers and loans officer who are on a daily basis in contact with the clients.
- ii. **Marketing support:** Most FIs lacks marketing budgets for creating awareness of solar products among their customers and members, hence they conduct a limited level of marketing. The FIs are keen to be supported in marketing campaigns through both printed and electronic media as well as targeted solar road-shows. For example, use of regional FM stations, devolved road-shows and exhibitions showcasing suppliers and FIs during market days to stimulate demand.
- iii. **Consumer education for women clients/entrepreneurs:** For catalytic effect to be felt among the women clients/entrepreneurs, the FIs felt a strong need to undertake a dedicated consumer education on the benefits of using clean lighting vis-à-vis traditional lighting products namely kerosene and candles. By virtue of doing this, they expect even non-members to be drawn to uptake the solar lighting products in the regions they operate in. This again can be done through the electronic media as it will have a wider reach as well as having solar clinics in the target areas. For example, on beach fronts in Mombasa and Kisumu, churches and through other social events.
- iv. **Facilitate FIs with access affordable sources of capital:** the source of capital for most MFI is from commercial banks which are expensive which in turn makes the loans to the borrowers more expensive. The FIs expressed interest to be linked with affordable sources of financing which will cause the benefits to trickle to the beneficiaries through affordable products. This can be achieved by having a special purpose loans for solar lighting extended to the FIs participating in the programme.
- v. **Facilitate suppliers' set up service centres in rural areas:** Facilitate the solar products suppliers to set up solar lighting products service centres in rural areas. This will result to confidence building of the solar products by the end users and entrepreneurs. The appropriate approach is to train and certify radio technicians to be repairing solar lanterns. The advantage with this is they are well distributed in the rural areas and have the technical knowhow on electronics which is similar to the solar technology.
- vi. **Connect FIs with credible solar lighting suppliers:** The FIs expressed the need for IFC Lighting Africa to develop a deliberate approach in recommending credible suppliers to FIs through targeted workshops. This will make the FIs operate from an informed point of view as some financing institutions do not know the role of IFC lighting Africa. In addition, this can be done by working with apex organisations such as Association of Microfinance Institutions (AMFI), Kenya Union of Saving and Credit Organisations (KUSCCO), Kenya Bankers Association (KBA), Kenya Rural Saccos Organisations (KERUSO), and Kenya Investment Group Association (KIGA).
- vii. **Approved solar lighting products branding:** To create a platform for easy discernment of approved and non-approved solar products, it is fundamentally important for IFC – Lighting Africa to recommend a specific identifiable mark of certification on all certified

suppliers products. The certification mark should be shared with all the FIs for easier recognition and identification. This is bound to create confidence to the FIs and consumers.

Annex1: Financial Institutions solar profile

3 Profile of Financing Institutions

3.1 Faulu Advisory Services

Introduction

Faulu Advisory Services (FAS) is a subsidiary of Faulu Kenya Deposit Taking Microfinance Institution (FKDTM). It was established in the year 2006 to provide advisory services that catalyze growth of micro, small and medium enterprises and the institutions that serve them. The company has separate management from FKDTM with a nationwide reach. It has since grown to become a major player in catalysing innovation in the microfinance industry. In the year 2011, it registered a renewable energy trading company called Ecosmart Energy. The company is mandated to provide renewable energy products which include solar products, cook stoves and biogas among other renewable energy technologies to FKDTM clients.

Ecosmart Energy works with various solar lighting suppliers that include: Smart Solar, Sollatek Electronics who are distributors of D.light solar products, Chloride Exide, Tough stuff, solar taa lanterns, Tronys products and BBoxx solar products.

Ecosmart uses the microfinance model to sell its products in the market where it signs partnerships with Microfinance Institution and uses the network of microfinance institutions. In line with this, Ecosmart works with the branch networks of the respective microfinance institutions.

Description of the model

FAS through Ecosmart Energy have 30 employees who work on renewable energy which includes selling solar lighting products, improved cookstoves and biogas systems. Once an agreement is signed with a financing institution, FAS deploys its staff to the branches of the MFI to help them set up the solar portfolio which involves training branch staff and selling and marketing to the MFI customers.

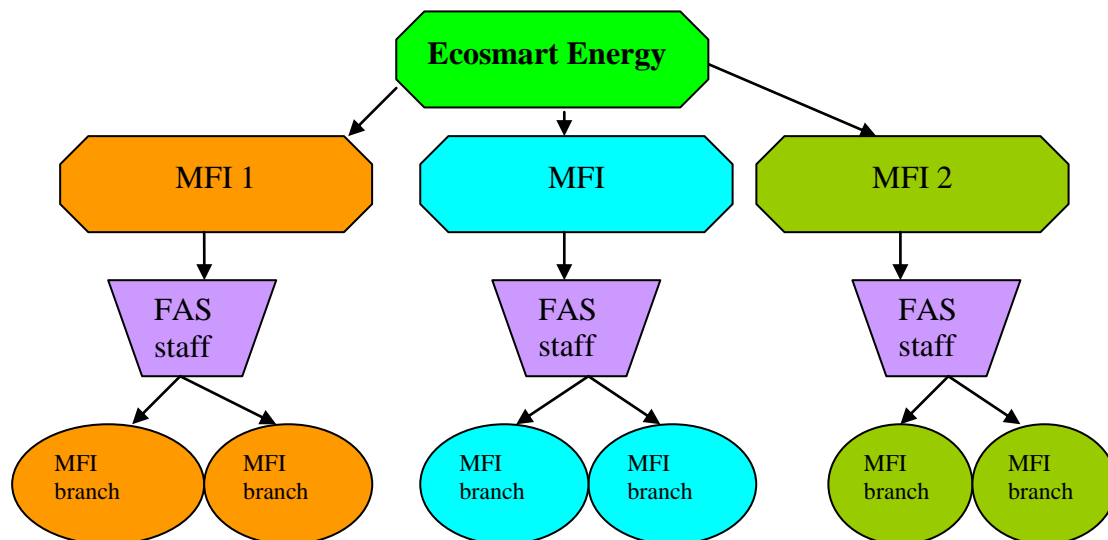


Figure 1: Ecosmart Operational Model

Currently FAS/ Ecosmart is working with the following MFIs:

- Faulu Kenya Deposit Taking Microfinance Institution (FKDTM)
- Ecolof Kenya
- SMEP

Opportunities for solar lighting

There is considerable scope of expansion because MFIs have shown interest in working with Ecosmart Energy especially where staff are attached to their branches specifically to grow the solar portfolio. This is one of the key reasons for opening a subsidiary company so that MFIs do not perceive that they are giving business to FAS which is a competitor.

Challenges in implementing solar lighting products

The following are the challenges FAS has faced while implementing this model:

- Lack of consistent supply of solar lighting products from the suppliers.
- The product distribution is expensive; it costs an average of KES 300 (USD 3.5) to transport products to the various MFI branches.
- In most cases the solar loan is a competing loan with other products. Most MFIs issue the solar loan as an “add on” loan, as preference is given to core MFI product loans.
- Majority of the suppliers have their service centre in Nairobi and therefore solar products have to be ferried to Nairobi which makes it expensive and time consuming.
- There is increased competition with low quality solar products that are not certified by Lighting Africa Programme.

3.2 Kenya Women Finance Trust Deposit Taking MFI

Kenya Women Finance Trust was started in 1981. It is one of the well established MFIs that targets women as their base clients. The membership has grown to about 600,000 members with branch and desk offices across the country. Besides the normal loans, KWFT offers an

extensive range of value added products namely: education, water tanks, dairy, LPG, Solar lanterns and mobile phones loans.

Solar Loans portfolio

KWFT started an energy programme in the year 2006 by promoting solar home systems and LPG and has continued to date. KWFT is currently partnering with Suntransfer to supply solar lanterns to stockist as well as end-users under it network.

Opportunities for solar lighting

- There is wide untapped solar market in the rural Kenya. Even areas that have grid are still experiencing challenges due to frequent load shedding;
- There is huge untapped solar business opportunity on solar phone charging which can transform the wellbeing of rural women.

Challenges

- Solar products failure is high due to many low quality products in the market
- Few reliable suppliers - most of them lack stock when the products are most needed. KWFT can approve upto 10,000 loans in a month hence creating a queue due to stock unavailability from suppliers.
- Most suppliers want to sell bulk to an institution but not get involved in entire value chain.
- No product guarantee by products suppliers especially when there is a mass failure of solar products. If too many fail, they abandon the project
- Low or poor consumer education thus hampering the solar products uptake.

3.3 Adok Timo Microfinance Institutions

Adok Timo Microfinance Institution was established in year 1996 with a mission to make enhance financial access to the majority in the rural areas The clientele is drawn from the active poor in Nyanza and has 22 branches namely: Siaya, Madiany, Misori, Mbita, Oyugis, Ugunja, Nyandiwa, Remba, Kendu-Bay, Kombewa, Kiboswa, Ndhiwa, Awendo, Ahero, Katito, Kadongo, Homa bay, Migori, Bondo, Muhoroni and Kisumu. The MFI offers both savings and credit products. Savings products include group savings, children's accounts and fixed accounts. Loan products are group based where groups comprise of a minimum of 6 members and a maximum of 20 members and include working capital loans and asset loans. Asset loans comprise of generators, water pumps, motor bikes and dairy cows. In total the MFI serves 35,000 members out of which 24,000 are female and 11,000 are male.

Solar portfolio

Adok Timo started a solar product loan that did not take off with a certain solar supplier from Nairobi. The supplier gave them samples for marketing where they conducted an aggressive marketing campaign but abandoned it as supplier failed to be responsive on delivery of orders.

Business Model

Adok Timo would use its current group lending model³ to issue loans and would add it to its Asset loan portfolio. Clients who do not have any other loans can access asset loan as a first loan.

Opportunities for solar lighting

There is a huge opportunity for working with women in Nyanza as they form 68% of the total clientele. Women are the most affected when it comes to issues of lighting and cooking and therefore solar would be a good lighting solution since most of their women clients use Kerosene and candles for lighting and cooking. During the aborted pilot, a large number of women had signed for the solar home system but were disappointed.

3.4 Eclof Microfinance Institution

The Ecumenical Church Loan Fund (Eclof) Kenya is a Microfinance Institution that offers credit to the active poor and is a non-profit organisation focused on supporting human development and building sustainable communities. The aim of Eclof is to strengthen small and social income-generating enterprises. It offers four types of loans: Two business loans branded Jiwepeshe and Jewepeshe plus, a dairy loan branded Ngombe Spesheli, a consumer loan and a solar loan.

Solar Portfolio Business Model

Eclof entered into a partnership with Ecosmart Energy using the microfinance institution model as shown in figure 1 above.

Opportunities for solar lighting

The solar loan is a new loan product that was started four months ago and has sold over 4,000 solar lanterns.

3.5 Unaitas SACCO

Unaitas SACCO formerly Muramati SACCO Society Limited was registered in 1993. It was registered as a corporate body on 31st May 1994. Since its inception, the SACCO has changed its name four times to adapt to the changing administrative and economic changes in its areas of operation. To date, the SACCO has one hundred thousand registered members who are shareholders and sixty thousand clients who are under their microfinance department, out of which 50% are male and 50% are female. Under their group lending model the SACCO has 1,500 groups out of which 80% are women. The SACCO implements the Women fund loans to selected women and women groups.

Unaitas SACCO has repositioned itself with a focus of attracting new business by targeting Small & Micro Credit Enterprises (SME's) as well as the existing membership base and is keen to recruit new members and design tailor made products for the MSE's as part of its campaign to attract new businesses. Also, as part of its positioning strategy, Unaitas SACCO

³ The group lending model is where group members guarantee each other such that in case of default, the members of the group are held accountable to pay the balance. This is an effort to ensure that those people without collateral access finances in an easier way. The model works well because the members exert pressure on their peers to pay the loans hence the rate of default is minimal.

expects to extend its products range and services to the national level. In line with this, Unaitas SACCO now competes on an equal platform with the most accredited commercial banks by having adopted an IT platform that enables service delivery to its clientele through POS's/Bio-metrics, ATM's and SMS banking.

Solar Portfolio

In 2002 the SACCO took part in Solar Home Systems Project, under the Photovoltaic Market Transformation Initiative (PVMTI) an initiative of the International Finance Corporation (IFC) where the SACCO was providing loans to its members to purchase solar home systems. As a result, the SACCO issued 162 loans to its members to purchase home systems. The key challenge encountered by the SACCO was most of its members were new to solar and due to the publicity they had made, their members did not perceive this as a loan but a grant. The SACCO also had problems with the supplier not having enough stock and poor after sales services. Currently the SACCO has partnered with BrazAfric who are distributors of D.light lanterns.

Business model

The SACCO does not have a model specifically designed for solar but solar product loans are issued under the following lending products: the asset loan for larger solar systems, micro leasing and group lending methodology for solar lanterns. The preference is the group loan where group members guarantee each other.

Challenges

- High delivery costs of solar lanterns to its members and clients
- Slow lead time; by the time a member/client places an order it takes a long time to supply the products since the SACCO does not stock any product.

Opportunities for Solar lighting as a Product

The SACCO suggests that there is considerable scope to work with women groups and consumers since half its members and customers are women. It suggests that it would target its rural women's group especially among its 30,000 tea farmers. The SACCO hopes to conduct a survey to identify a range of solar needs of its women entrepreneurs and design a stand alone product targeting women.

3.6 Ecobank Kisumu

Ecobank Kisumu was started in 2007. Ecobank has branded itself as an SME bank and provides financial services to business people in Kisumu as well as institutions. Most of its clients are larger SMEs operating in Kisumu. It provides business as well as asset loans. The asset loans are mainly for the purchase of motor vehicles and for buying large machinery. . In addition, the bank offers saving services for groups "chamas" especially those that are well constituted.

Solar portfolio

The bank does not have a solar portfolio but would like to work with large suppliers in Kisumu.

Opportunities for Solar lighting as a Product

- Ecobank Kisumu would want to work with women dealers of solar products in Kisumu.

3.7 Molyn Credit Limited (MCL)

Molyn Credit Limited (MCL) is an MFI serving the poor currently in Nairobi, Central and Western Region. The MFI offers credit and financial advisory services targeting self help/community groups, SMEs, Civil servants belonging to the lower job group categories as well as employees of State Corporations. The MFI provides the following loan products: Groups loans include business loans, school fees loans, agriculture loans, market day loans and low income house loans. Other loans include the following: Asset finance loans targeting individual clients and unsecured personal loans targeting low income civil servants and low income employees who remit their loans through a check off system. MCL has a loan product that targets renewable energy where they offer solar loans and biogas loans. In total the MFI has 15,865 clients; 9,678 are women and 6,187 are female.

Solar Portfolio

MCL started a solar portfolio at the beginning of this year (2012) targeting their group clients based in Western Region. They partnered with Sollatek Electronics, distributors of D.light solar lighting products. To date they have sold over 2,000 solar lanterns. They picked the supplier from reference of a consultant based on the Lighting Africa certified solar suppliers.

Business Model used

MCL has partnered with Mumias Sugar Company to issue solar and biogas loans using a check off system for farmers. The farmers sign up; products are delivered to them and then they pay using balloon payments⁴. The MFI has a desk at the sugar company where information of the solar lighting and biogas loans are disseminated.

Challenges

- The MFI raised so much expectation but lacks enough funds to serve the hugely created demand;
- Inability to access the extreme rural poor due to poor infrastructure;
- Insufficient market awareness of the benefits of solar energy among their clients;
- Some clients fear to change from Kerosene to solar due to ignorance.

Opportunities for scaling up solar

The MFI has received an overwhelming demand for Solar as a result of partnership with Mumias Sugar Company to support sugar cane farmers with solar and biogas loans through a check off system.

3.8 FEDHA Link Credit

Fedhalink Credit is a small MFI that has a client base of 250 clients with a loan portfolio of Kes 8 million. The gender ratio of its clientele of women to men is 6:4.

Over the years Fedhalink has operated with two main loan products: salary based loans and business loans. Loans range between Kes10, 000 to 500,000 depending on loan purpose and ability to pay

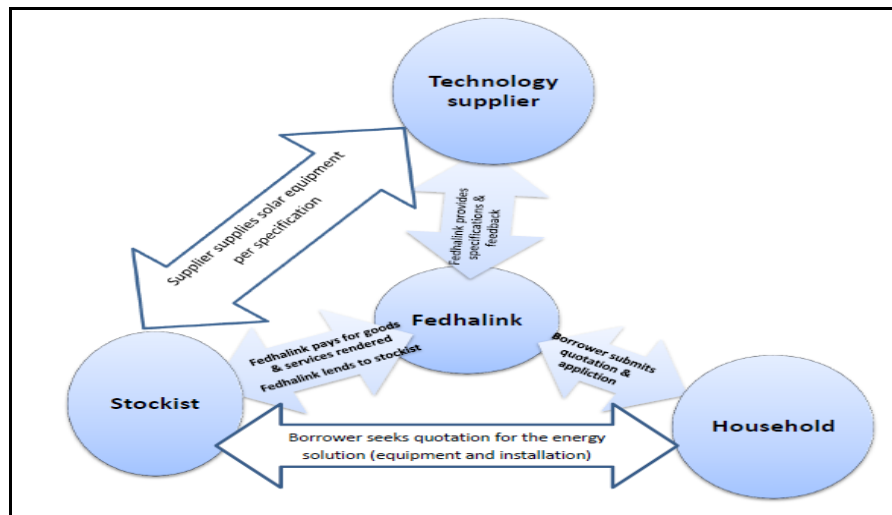
Business Model

The current delivery model is institution based with check-off from employer being the main form of receiving payment. This model has been preferred because it is cost effective and in line with limited resources Fedhalink has.

⁴ Balloon payments are one off payments that are deducted during the sugar payout.

Solar portfolio

Though Fedhalink has no solar energy products, it is keen to venture into it. The management has designed a delivery model. The proposed delivery model takes care of ensuring that the supplier provides quality products to be sold to end users. This will be done through a quality check at Fedhalink before supplying energy entrepreneurs. Fedhalink will lend at two levels: enterprise and household levels. Repayments for loans will depend on whether the borrower has borrowed as individual (large loans especially energy vendors with full near conventional collateral) or through group methodology (under employer or member-based group). Figure 1 below shows this arrangement.



3.9 Micro Kenya

Micro Kenya was established in the year 2000 with an aim of providing consumer loans. In 2009 it became a fully fledged MFI and started targeting the following categories of customers: group lending and individual loans both at consumer and enterprise level. The MFI has a total of 13,000 clients of whom 52% are women. Micro Kenya loans products are categorised as follow: individual loans, group loans, **biogas loan**, **solar loan**, Maji Nyumbani and Makao Poa.

Solar Portfolio

On the solar loans, Micro Kenya is partnering with Tronys Solar as the main supplier of solar products. The partnership is still at an early stage as it was started this year.

Opportunities

As the target market is in the rural area, there is huge market potential that is still untapped especially targeting women.

Challenges

- Solar product failure is eroding consumer confidence
- Poor distribution network of solar products in the rural areas
- Lacks of technical know by the marketers of the solar products from the MFIs.

3.10 Milango Microfinance

Milango was established in 2009 with a mission to bring about socio-economic transformation. It has a membership of 9190 of whom 53% are women clients. They offer the following loans types: group, individuals, school fees, and emergency and consumer loans. It offers the following loan products: Business loans, School fees loans, Micro Insurance loans, Asset financing loans, Agri-business loans and Emergency loans.

Solar Portfolio

Solar loans are packaged under asset finance loan. The MFI works with Ecosmart and uses its model where their clients are linked to D.light products under the group guarantee method.

Opportunities

The focus of Milango is Coastal region and most of its areas of operations are off-grid. Hence a huge untapped market to women as consumers and entrepreneurs as solar has not penetrated well in the Coast region.

Challenges

Milango MFI only uses group lending methodology, this presents a challenge where some group members fail to honour their payment obligations which affect other members; i.e. the MFI only provides loans where members are not in arrears or in default.

3.11 Greenland Fedha Microfinance

Greenland Fedha is a microfinance started in the year 2009 under the auspices of Kenya Tea Development Agency. Its mandate is to provide financial services to tea farmers. The loans period is upto a maximum of 1year. This is due to the limited capacity of the MFI as it is still young. It focuses only on financial products due to complex nature of the tea sector. That is, each factory is owned by the members and it has an independent Board of Directors. It is the sole responsibility of the factories to negotiate on behalf of their members; that is, any products that MFI can provide to the members must be recommended from the board of directors of the factories.

3.12 KIVA /BrazAfric Partnership

KIVA is a non-profit organization that uses internet platform to lend money to end users through partner organizations.

BrazAfric Enterprises Limited is a for-profit social enterprise that primarily imports, distributes and sells agricultural tools and machinery with great emphasis on technological solutions that enhance energy and environmental conservation. Its major product lines that it promotes include solar lighting systems and energy efficient cooking products. The company works with smallholder farmers where it has created a **Vendor Financing Department (VF)** since 2010 to offer its products on credit to low-income smallholder farmers. Through the VF program, BrazAfric is partnering with Kiva by utilizing its internal credit expertise and grass root network to offer financing to its clients to buy solar lighting products.

Solar portfolio

BrazAfric is selling D-light solar products specifically the S250, S10 and S1. The company plans to expand the range of products and is in the process of identifying other approved solar lighting products that they can add to their portfolio.

Description of the Business Model

BrazAfric uses its normal marketing channels to identify SACCOs, Organized Women groups and Community Based Organizations (CBOs) to market energy products, once the SACCOs are interested in purchasing products for their members, they enter into a collaborative agreement where members can purchase energy products on credit. The VF department then links SACCO to KIVA where the SACCO gets a loan to purchase in bulk for their members.

Challenges encountered in solar

- As solar is a new product, it is expensive to conduct consumer education as well as marketing;
- The cost of transporting the products to the end users is high.

Opportunities

- Brazaftric has been approached by a number of rural based SACCOs to work with them;
- It rural based network offers a good platform for solar lighting products dissemination;
- There exist a potential of packaging solar with its products that are women targeted to enhance the penetration.

3.13 CARE Group Savings and Loans (GS&Ls)

CARE has addressed the food security in Western Kenya using a multi component approach to address the issue of food security that includes the following: Saving and Credit, Agriculture, Health and HIV/AIDS. To address the issues of savings and credit, CARE has formed groups known as Group Savings and loans (GS&Ls).

Group Savings and Loan (GS&L) methodology is described as a community managed micro finance (CMMF) scheme whose approach is to increase the economic resilience of micro entrepreneurs. Members of GS&Ls are self selecting and save by contributing regularly agreed amounts based on their capacity. They pull their savings into a loan fund from which members can borrow, repaying with a service charge. Members borrow loans depending on their needs and the interest goes to the group kitty which is shared out on an agreed period in proportion to each member's contribution.

CARE helps to form and strengthen groups known as Group Savings and Loans. These are simple financial intermediation model where members of a group (usually 15-30) contribute an agreed amount of savings during regular meetings and lend out this to members based on demand. CARE supports the groups by delivering trainings which are aimed at improving governance and management operations of these groups.

CARE implements GS&L projects in five Provinces: Nyanza, Western, Nairobi, Eastern and North Eastern, and includes Nairobi's Kibera slums of Nairobi. Currently CARE has partnered with the Financial Sector Deepening Trust (FSD) to role out a national strategy on GS&Ls. In

addition CARE is also working on modalities of improving GS&L service delivery in the informal settlements, targeting youths and women.

At present CARE is implementing Women entrepreneur development through funding from the Cherie Blair Foundation for Women. The project targets 2,554 group members in Suba and Bondo Districts in Nyanza Provinces. Its main objective is to improve, in a sustainable manner, the economic capacity of women micro entrepreneurs, currently practicing GS&L for enhanced income and livelihood security

Solar Portfolio

Care GS&Ls do not have solar loans. The groups mobilize their own savings which they use to lend loans to their members for income generating activities, agriculture and consumptive use. However, there is potential of working with CARE who in turn can use the groups to promote solar products among their members

Opportunities for Solar lighting as a Product

The GS&Ls are a good candidate for solar lighting products, chiefly because they are self selecting, mobilize their own savings and can use these savings to purchase solar lighting for women. Some groups can also become dealers and micro dealers of solar lighting products since these groups are known at a grassroots level.

3.14 APHIAPLUS Western Kenya Project

APHIAPLUS Western Kenya Project is a five-year USAID-funded health project being undertaken between January 2011 and December 2015 by a consortium of partners namely Program of Appropriate Technology in Health (PATH), Elizabeth Glaser Paediatric AIDS Foundation (EGPAF), *Jhpiego* and World Vision. The prime partner is PATH. APHIAPLUS works with existing structures and builds capacity at provincial, district, facility, and community levels to achieve fully integrated service delivery in Nyanza and Western provinces.

One of the project's key result areas (Result Area 4 - SDH) aims to improve the wellbeing of targeted communities and groups by addressing factors that prevent them from accessing healthcare and living healthy lives. In addressing these contextual factors that affect health (Social Determinants of Health), such as poverty, education, environment and socio-cultural norms, APHIAPLUS focuses on 5 key intervention areas:

- Household Economic Strengthening (HES)
- Food Security and Nutrition (FSN)
- Education and Child Protection (E&CP)
- Water Sanitation and Hygiene (WASH)
- Organizational Development and Community Capacity Building (OD&CCB)

Under its Household Economic Strengthening program it is working with 93 active Village and Savings Groups (VSLs) where it provides capacity building for the VSLs groups as well as strengthening the same. The groups have a savings scheme where they mobilize savings and borrow money at an interest, the money accumulated from interest is shared among group members. On average VSLs have a minimum of 15 members and a maximum of 30 members.

Solar portfolio

The VSLs do not have any solar product they normally borrow small loans from their mobilized savings to expand their small business or for consumption purposes.

Opportunities for Solar lighting as a Product

Eighty percent of the VSL group members are women therefore working with these types of groups present a huge opportunity for dissemination of solar lighting for women opportunity. APHIAPLUS is interested in promoting solar among these groups as most of the VSL group members use Kerosene for lighting where a large percentage of their small income goes to meet their lighting needs.

3.15 WEDI Savings and Credit Groups

Women Enterprise Development Institute (WEDI) is a fund manager for a portfolio of 800 women's savings and credit groups operating in the Central Province of Kenya. It has seven branches: Karatina, Nanyuki, Meru, Nakuru, Thika, Nyahururu and Nkubu where its women groups are located. Its head office is based in Karatina. The WEDI groups are self selecting groups that are composed of a minimum of 15 members and a maximum of 30 members with the exception of groups in Maralal that are composed of 50 members. The groups meet weekly/ monthly to mobilize their own savings which they also lend to group members at an agreed interest rate payable upfront. The role of WEDI is to provide back office work for the women groups which includes; loan underwriting, collections and tracking repayments for the groups at a fee.

Solar portfolio

WEDI started a solar portfolio through a tripartite agreement between GVEP International and two suppliers; BrazAfric and Sollatek in 2010 and 2011 respectively. Both suppliers deal in D.light products. GVEP International placed a partial guarantee to the supplier and the women groups mobilize half of the cost of the solar lantern. In addition in 2011 WEDI entered into partnerships with Rural Development solutions who sell RDS solar products and Tough stuff.

Challenges

- Suppliers do not deliver the products on time;
- Replacement of solar lighting parts by suppliers takes too long. For example, batteries and solar panels that have been stolen.
- High transport costs associated with delivery of the model: WEDI loan officers cannot carry more than two solar lanterns since they use 'matatus' to transport the lanterns as more than two are charged by the transport they use.

Opportunities for Scaling up solar lighting

WEDI has an expansive network of women groups in its 7 branches where it can reach more women consumers.

Annex II: List of Financing Institutions

Name of financing Institution	Name of Contact person	Designation	Contact
Financial Advisory Services	James Kihara	Business Development Manger	jamesk@faulu-advisory.com
KWFT	Waweru Gichimu	Energy Product Development Consultant	wawerugichimu@yahoo.com
Ecobank Kisumu	Emily Musungu	Branch Manager	Emusungu@ecobank.com
	Nelly Chemtai	Credit Officer	nchemtai@ecobank.com
Adok Timo	George Jura	Operations Manager	georgejura@yahoo.com
Unaitas SACCO	Jadiel Kinyua	Business Development Manager	Jadiel.kinyua@unaitas.co.ke
Eclof	Margaret Kiruki	Operations Manager	margaret@eclof.co.ke
Micro Africa	Samuel Gaita	Operations Manager	sgatia@microkenya.co.ke
Molyn Credit	Lydia Anyangu	Chief Executive Officer	lnanyangu@molyn.co.ke
Opportunity Microfinance Institution	Geoffrey Thige	Operations Manager	jthige@oppotunitykenya.com
Greenland Microfinance	Anne Gathuku	MFI Manager	agathuku@kdateas.com

Annex III: List of Non-Financing Institutions

Name of Organization	Name of Contact person	Designation	Contact
APHIAPLUS	Stephen Ingabo	Technical Advisor, Economic Strengthening and Development	singabo@aphipluswesternkenya.org
CARE	Allan Odera	Regional Manager	allan@ksm.care.co.ke
WEDI	Jamleck Mugo	Managing Director	wedikaratina@yahoo.com