



**FORMAT EASE PROJECT PLAN FORMAT 2007 v3.**

This format should be used to plan and elaborate EASE Projects in the form of a working document that can be shared for feedback among the different EASE partners. Project Plans should be short (maximum 6 pages – excl. budget, time schedule and annexes), concrete and to the point. Please update author, date and version information in the header each time changes are made to the working document.

**1. Basic Information (Max 1/4 page)**

|                             |   |
|-----------------------------|---|
| Project Name:               | Increasing access to energy in Uganda   |
| EASE Country:               | Uganda  |
| EASE Partner:               | Volunteer Efforts for Development Concerns (VEDCO)  |
| Project Implementing Party: | VEDCO   |
| Contract Party:             | VEDCO   |
| Total Budget:               | EASE contribution 49 992 Euro (total EUR 58,156).   |
| National contact person     | (Henry Kizito Musoke, ) +256 414 270598, +256 772 494482, henrykizito@vedco.or.ug, skype-name, etc) |
| ETC contact person          | Frank van der Vleuten   |



## 2. Market Background (Max 1/2 page)

### How does this (e.g cook stove) market function in your country?

Market is characterised by lead firms that import the diesel driven produce processing and milling machinery into the country with a few dealerships that are owned by these lead firms in some major towns in Uganda. The technical capacity to install the machinery is embedded in the lead firms (technicians that install and maintain are part of the lead firms/dealerships)

### How in the target region?

The nearest lead firm (Tasha Agro Industries) is about 50km away from the targeted central Uganda Luweero and Nakaseke districts with no dealership close in the area. Entrepreneurs (including organized farmer groups) in smaller townships purchase diesel powered milling plants from importers or large dealers in Kampala and install them in areas with high concentration of producers of cereals (within 10 to 20km). The entrepreneur (in this case the technology consumer) is responsible for transportation, identification and payment of a technician to install and maintain the equipment regularly.

### Where is the market development now compared to the phases in the EASE Access strategy?

Its at Stage 2: Starting rural markets

### What is market history and what are strong versus weak points in the market chain?

#### Strong points

- Technology is readily available in Kampala and a few major towns in Uganda
- Technology is proven and has been used widely in Uganda

#### Weak points

- Dealerships of this technology only found in Kampala and major towns
- Technical skills are limited and concentrated at the lead firms or dealers
- Lead firms and dealers do very little promotion to potential entrepreneurs

### Why is an EASE intervention necessary?

Diesel engines powering agro-processing machinery enhance human nutrition, save productive time and add value to marketable produce thus presenting a good potential for boosting rural development. However, the use of these engines to generate energy to support other income generating activities and services is greatly limited by knowledge of the possibilities, inadequate technical and entrepreneurial skills. The knowledge gap regarding the potential inherent in the diesel engines and the potential contribution of the specialised large importers and dealers concentrated in Kampala city and to support rural based entrepreneurs in the countryside, who are not connected to the national grid to exploit the potential in diesel engines needs a bridging intervention.

Energy demand for productive services like phone and battery charging, saloons and lighting is largely unsatisfied and could be fulfilled through expanding the services of current investment in aro-



**3. Product package (Max 1 page)** This product package has to be completed in full detail before the rest of the proposal can be written: without a complete and logical product package, rest of the project proposal cannot be written.

**(a) Technological description of product**

Cereals are ground (maize and nuts) or hulled (maize, rice) by mills powered by diesel generators. The product under consideration is a 2 piston diesel engine with 2 piston engines, 25 Hp, water cooled. The common make in Uganda is SAFEX. However, in order to function well, the engine should be complemented with a 48KV battery charger, 15KVA voltage stabiliser, an alternator and an isolator.

**(b) How do we know the product is a proven solution for the energy demands of our target group (provide references)**

In the target area there are currently 5 rice and 3 maize mills powered by diesel engines, 4 of the rice and 2 of the maize mills acquired with support from VEDCO. In Uganda, 2 MFPs were successfully installed and operationalized in Masindi district with support from UNDP. Both systems are run by diesel engines (AMEC 20 with a 10kVA alternator). The MFP in Kijunjubwa sub/county powers a milk chiller, a borehole pump and a maize mill, while the one in Nyantonzi sub/county powers a grinding mill, vegetable /nut oil presses, battery chargers, welding tools and mini grid for lighting.

**(c) How will product be presented in market (commercial strategy)**

Using PRA approaches VEDCO will present the current diesel engine powered mills as latent multi-functional energy solutions with the potential to generate extra income for the groups through the expansion of current services and challenge the farmers groups to expand current services. These services could include the following: fruit processing and preservation, honey processing, blending and sealing beverages from soya beans, coffee and vegetables, barbershops/saloons, phone charging, video halls, lighting mini-bakeries, kiosks, restaurants and business/social service institutions like health centres and schools.

In order to up scale the project to other groups and individual entrepreneurs that may want to buy diesel powered MFPs, an awareness campaign shall be made both on radio and in print media, using posters in strategic positions, distribution of information leaflets and the documentary shot during project implementation shall be broadcast on the most outreaching television station.

**(d) How will the product be distributed in the market, what is the planned stock situation (Logistical strategy)**

VEDCO will pilot with current farmers' groups that already are in possession of a milling facility powered by a diesel generator.

Under the 'Value Addition Program' currently being undertaken by VEDCO more groups will be mobilised and facilitated to acquire milling facilities.

How the current program is being implemented

The program is aimed at improving competitiveness of agro-based products on the market, through processing the raw agro-produce into high quality products, with longer shelf life, better packaging (in some cases branded), wider market outreach and acceptability, therefore higher value. In the program farmer groups raise 50-75% of the value of the required machinery and installation, and the project supports them to get technicians to train them on maintenance and management, and to top up on acquisition costs. There are groups that run the establishments as business.

**(e) Will finance be offered with the product, how?**

1. For existing facilities – The Group will be encouraged and provided with technical and



financial support (co-financing) for acquiring the extra equipment or machinery that may have been identified in extending the services offered by the existing facility.

2. For Groups that are starting out - Provision of finance from MFIs, banks and SACCOs will be encouraged where Farmers' groups can demonstrate a commercial viability. Finance providers will be encouraged to develop loan terms that suit the different groups that are participating in the project. For example accepting diesel engines as security instead of seeking for additional collateral (land titles and houses) which are a common hindrance for both energy and business entrepreneurs seeking capital.

#### 4. Justification (Max ½ page)

**(a) What will the project 'bring' in terms of benefits for the target group compared to the current situation?**

- Increased efficiency of resource use (higher utility from the diesel engines)
- Increased income for the farmers groups due to the increased capacity utilization of the diesel engines
- Reduced drudgery for women in their food processing role, creating time for women to rest and relax
- Increase in light time for engaging in cottage industry (presenting more opportunities for women productive work), longer business operating hours, longer time for family interaction for families that may get access to lighting from the diesel generator
- Increased efficiency of communication for both women and men through the mobile phones by ensuring a consistent and accessible source of mobile charging
- More viable farmer engagements with the markets through improved communication and therefore higher profitability from farming engagements

**(b) What will the project 'bring' in terms of lessons for the EASE programme (define the 'testing' questions that will be answered by the project)?**

The project will endeavour to answer the following questions:

1. To what extent does generation of energy for productive services in addition to the primary function of the mills contribute to improving incomes of female and male farmers?
2. What is the effective intervention strategy in overcoming the bottlenecks in growth of demand for utilisation of diesel engines as multifunctional energy solutions?
3. What changes have occurred in the supply chain for energy solutions that can be attributed to the project activities?

#### 5. Quantitative Objective (Max ¼ page)

**Number of people that will be reached**

The project will target generation of extra services from 2 milling plants that could support establishment of at least 5 SMEs each, with direct benefits to at least 20 households each. With an average household size of 6 people, the project will indirectly benefit a minimum of 1200 people. Members of the 2 farmers groups involved will benefit directly from increased dividends and given an average group size of 35, these shall be 70 members. This will bring the total of beneficiaries 1270 people. .

**What kind of energy demands will be covered**

The project will respond to energy demands for agro-processing, running small machines and businesses, charging batteries, entertainment and lighting where possible.

**Expected sustainable market volume after the project (with how many people/units per year will the**

#### market continue after the end of this project)

It is expected that without support from VEDCO, 2 groups per year (including individual entrepreneurs) will expand the utilization of their diesel generators

#### How will counting take place during and after the project

VEDCO will monitor quantities and types of purchases and installations, numbers of women and men benefiting from project outputs, number of enterprises (run by both women and men) and households utilising generated services and share this information with the EASE partnership on an annual basis. Liaison with financing institutions, importers, dealers, technicians and local business entrepreneurs will be made to compile this information accurately. For continuity, VEDCO shall establish MOUs with the managers of MFPs to continue collecting data about growth of the service users, but also an attractive information service shall be floated for other parties or groups that purchase the engines later, The service shall be of a give-and-take nature, with users taking information they and providing data in turn.

### 6. Methodology (Max 1 page)

#### What will the project actually DO? Short overall description of approach

- Refer to and include (here or in the annex) the project organisation map according to the presentation model developed in the KM activity in EASE/2006.
- Refer to and include (here or in the annex) the main actor changes

VEDCO will initially work with the farmers groups that are already in possession of diesel generators and milling facilities to facilitate the recognition and appreciation of the possibility of increasing utility from their diesel engines. Participatory Rural Appraisal techniques shall be used to review current benefits and to compare them with potential benefits in cases where multiple functions are explored.

VEDCO will facilitate this review with support from technicians attached to suppliers/ dealers of mills and diesel engines. The experimentation will consider the priorities of the potential service users and the business entrepreneurs, and identify supply and demand side bottlenecks.

On the demand side the project will catalyse growth of demand by encouraging other farmers' groups to invest in and utilise the services made available by the diesel engine (both for agro-processing and productive uses). This could be made possible by linking with other NGOs and CBOs in the area to create awareness about the product and services and to support potential female and male users to access information on products, prices, services and sources through promotional materials developed in appropriate languages.

Farmers' groups shall be equipped with financial and business development skills and encouraged to learn by sharing knowledge with each other and with service users.

On the supply side, importers and dealers will be engaged to contribute to production of promotional materials, to train technicians so that they provide technical and managerial expertise relevant for entrepreneurs to provide end-users with satisfactory services and to develop confidence and trust in the products. Micro-financing service providers (SACCOs, MFIs, and Banks) shall be encouraged to develop financial products suitable for energy entrepreneurs at different levels, and for end users.

Direct monitoring of project achievements shall be done, coupled with participatory evaluation sessions so that input and feedback of the actors can be addressed, and an electronic documentation of the processes and procedures made. Lessons learned shall be documented and shared with the actors and EASE partners in shared reports, meetings and regional workshops.

#### Step-by-step plan for implementation (to help readers 'think-through' the process, what/who is needed when)

The implementation plan shall include the following activities:

1. Identify the farmer groups/ business entrepreneurs and importers/dealers that are interested in participating in the pilot. This activity will involve a review of the performance of groups operating

milling machines with respect to income earned and the untapped opportunities that would be presented for exploitation by the project activities. The opportunities would include a large population of phone users and utilization of a good location in a busy rural township (signifying transit of people for services like barbershops, saloons, cold drinks).

2. Consultations with importers of diesel engines/agro-processing technologies and their technicians, on reviewing the supply chain efficiency.
3. Consultation with potential project beneficiaries as individual entrepreneurs or organised groups of farmers shall be made, utilising information drawn from the importers and technicians. These consultations will aim at educating and learning from entrepreneurs, identifying potential challenges and bottlenecks they may foresee, and drawing a way forward. In the case of organised farmer groups, this consultation will involve participatory methodologies of the SWOT analysis, taking care to address the farmers' fears and together to ensure they own the process and the results.
4. Working with technicians to identify modifications that ought to be made with the mills in order to generate energy for the required services, and encouraging the entrepreneurs to invest in acquiring and installing those additions.
5. Concurrent with installation of equipment shall be training of local artisans to equip them with technical skills necessary for them to continue to operate the machines even after project end.
6. Group leaders and individual entrepreneurs involved in the experimentation shall be trained in basic financial and managerial skills to facilitate diligent record keeping.
7. Public awareness campaigns in the project areas shall be done using community radio and posters to promote available services to potential users. Promotional materials like leaflets will be used to create enthusiasm among other entrepreneurs and farmer groups, and operators' manuals will be produced and availed to potential investors.
8. Joint workshops with Micro Finance Institutions and SACCOs in the project area will be held with the aim of encouraging them to develop financial products relevant for energy entrepreneurs. Opportunities and bottlenecks for their involvement shall be documented and where possible joint strategies drawn to address the challenges.
9. Monitoring of growth of demand and users of the services will be regular, and reports shall be drawn on quarterly basis to document lessons learnt, challenges faced and bottlenecks identified and strategies.
10. An electronic documentary shall be shot at selected milestone activities of the project and shall be a process documentation for sharing.
11. The project will be evaluated, a final report will be shared with EASE partners.

#### How will lessons be drawn and documented (monitoring and learning)

Monitoring of project activities will be regular, focusing on progress on the questions that the project intends to answer. Monitoring will be carried out by the project team, with support from the Monitoring Manager at VEDCO. Every quarter VEDCO will monitor growth of users and entrepreneurs and keep an updated database that will be shared with the EASE partners, but also monitor changes in actors' ways of playing their roles. Information will be documented in reports, in pictures, will be shared in meetings and on the VEDCO website. VEDCO will conduct an end of project evaluation and lessons that can be replicated will be highlighted and documented for sharing within the EASE Partnership.

A final report will be submitted at the end of the project that will be a documentation of the approaches used, achievements made following the questions set for project, lessons and recommendations for scaling up to other areas or products.

#### 7. Project Team (Max 1/2 page)

Who will be involved in the project, from which organization, in what role (position and tasks) and for how much time. Include one person who will be Catrin's contact person for contract management, invoices, deliverables etc.

(b) Describe the lead implementing business organization in terms of ownership structure, the organisation, management/governance, responsible person of the project

The lead implementing agency is a non-governmental organisation headed by a seven- member Board of governors, managed by a 6- member team of technical staff and field workers that provide direct services to 22,000 farmers in the field of agro-business development. At the institution level, the Executive Director is responsible for the project, and at implementation level, the Project Coordinator with technical skills in energy will be responsible for the project.

Is the lead implementing organization the contract party? If not, why not?

The lead implementing organisation is also the contract party.

### 8. Conditions precedent for project implementation (Max ¼ page)

List preconditions that need to be in place before project implementation:

e.g. back ground info on implementing partner (e.g. product supplier),  
e.g. working arrangement with third parties (e.g. micro finance organisations).

- Organised farmer group(s) and or individual business entrepreneurs involved in agro-processing using diesel driven mills, and willing to experiment with provision of multiple energy solutions.
- Energy users that are willing to pay for the services generated by the diesel engine. This is necessary to maintain and grow demand
- Availability of engines at the suppliers/dealers shops
- Agreement between VEDCO and EASE on the proposed project intervention strategy and work plan, and signing a contract on the agreed terms.

### 9. Major Risks and Management Measures (Max ¼ page)

| <b>Risk</b>   | <b>Mitigation measure</b>  |
|---|--|
| Dealers and importers failing to appreciate the importance of training and motivating technicians and promoters leading to transfer of costs to end users.  | Demonstrating to the dealers the long term benefits of training local based technicians in installations and maintenance of machinery and equipment.                                       |
| Initial high investment costs on accessories necessary for services expansion may limit farmers' group participation in the project.                        | A micro-financing specialist to support the identified MFIs and SACCO's in developing loan packages and procedures that simplify eligibility of energy end users will be brought on board. |
| The absence of subsidised supplies (different from VEDCO's usual operations in food security and agric trade development) may limit interest in the project | From project start, objectives shall be made clear, and private sector players shall be at the forefront in promotions and not VEDCO.  |

### 10. Deliverables (Max ¼ page)

| # | <b>Title deliverable</b>  | <b>Description deliverable</b>                                       | <b>Deadline</b>                                   | <b>Submitted by (responsible person)</b> |
|---|---------------------------|--|---|--|
| 1 | Quarterly project reports | Technical and financial project progress reports                     | June 15 <sup>th</sup> ,<br>Sept15 <sup>th</sup> , | PC, FM and OPM<br>VEDCO                  |
| 2 | Operators Manual          | Simplified users' Manual in 2 languages (English and Luganda)        | 3 <sup>rd</sup> week of July                      | PC, and consultants                      |
| 3 | Evaluation report         | Written end of project report  | 1 <sup>st</sup> Nov.                              | M&E Manager                              |
| 4 | Promotional materials     | News clips, fact sheets, fliers, radio, reports                      | 30 <sup>th</sup> October                          | VEDCO, partners                          |
| 5 | Documentary               | Electronic copy of recordings of processes and procedures in project | 15 <sup>th</sup> Nov.                             | PC & Comm. Manager                       |



|   |                      |   |                      |            |
|---|----------------------|---|----------------------|------------|
| 6 | Final project report | Documentation of project results and impact | 1 <sup>st</sup> Dec. | PC and OPM |
|---|----------------------|---|----------------------|------------|

## 11. Reporting (Max ¼ page)

### **1. Contents and dates of progress reporting**

Report on a quarterly basis

- Quarterly progress reports shall include updates from the purchases and installations data base, training reports, financial reports, attachments of deliverables for the period. Quarterly reports shall be submitted by the 15<sup>th</sup> day of the preceding month ending the quarter.
- Final evaluation report shall contain the findings of the final evaluation, which shall indicate a comparison between what was expected and what would have been achieved. This report shall be submitted by 15<sup>th</sup> November 2010.

### **2. Form and structure and date of end-reporting**

An end of project report will be submitted at end of November. It will be a narrative report including achievements made, lessons learnt during the project and recommendations for on development of markets for energy solutions. This will be accompanied by a financial report on project expenditures.

### **3. milestones for go/no go decisions to go for larger scale**

- Go if the processes followed are replicable and the pilots have been commercially successful
- Go if the developed market system has all signs of self sustainability.
- No go if demand fails to satisfy or match supply or if supply of services fails to match needs of end users



**12. Time Planning (Max 1 page)**

Table indicating activities (and deliverables) per month including responsible organization/person.

Attached as Annex 2

**13. Budget (Max 1 page)**

Including total budget in EUROS, EASE financing, (when applicable) co-financing. Make a lay out with budget line numbering.

Please find in annex 2 of co-operation agreement 079265-2010-052