# F:\ \Logo 2\DARUDEFO LOGO 2017-01.jpgDIVINE ACTION RURAL DEVELOPMENT FOUNDATION (DARUDEFO)

P.O.BOX 32, KASESE (UGANDA)

Email: [darudefo@gmail.com](mailto:darudefo@gmail.com)

Or: [info@darudefo.org](mailto:info@darudefo.org)

Website: [www.darude](http://www.darude)fo.org

Strength Through Unity & Understanding

SUBMISSION OF THE BRIQUETTE CHARCOAL FUEL PROPOSAL FOR FUNDING:

SUBMITTED BY: DIVINE ACTION RURAL DEVELOPMENT FOUNDATION

(DARUDEFO)

P.O.BOX 32, KASESE-UGANDA.

E-mail: [info@darudefo.org](mailto:info@darudefo.org) or [darudefo@gmail.com](mailto:darudefo@gmail.com)

CONTACT PERSON: KABUGHO RUTH,

CHAIRPERSON-DARUDEFO

E-mail: [ruth@darudefo.org](mailto:ruth@darudefo.org)

TEL:+256773668027

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TOTAL PROJECT COST: $ 5000

REQUESTED: **$** 5000

DURATION OF PROJECT: 12 MONTHS.

**EXECULTIVE SUMMARY &INTRODUCTION**

The Briquette charcoal fuel project will be located in Uganda, in Nyamwamba Sub County, and implanted by DIVINE ACTION RURAL DEVELOPMENT FOUNDATION (DARUDEFO). DAUDEFO is local community based nonprofit autonomous non-government organization located in Kisanga village, Nyamwamba Sub County, Kasese district in Western Uganda. This women organization started in 2007 after realizing that girls and women form the greatest percentage of the community affected by poverty, human right violation, poor health care and ignorance. This organization was formed to fight for women’s economic emancipation and respect for human dignity, thereby improving their living standards by providing appropriate technologies, training and support services enable them become self-reliant

**DARUDEFO OBJECTIVES.**

To realize the above vision, mission and goal, the forum has set the following objectives:

* To build the capacity of the members to respond to different socio-economic and political opportunities and challenges and to eliminate barriers to Youths full participation in the socio-economic and political arena.
* To strengthen the institutional capacity of the forum to meet its mandate in a cost effective and sustainable manner.
* To strengthen the influence and capacity of leaders and activists in promoting policy formulation, development and proper implementation of policies and programmes directed at the welfare.
* To define the common good and historical mission.
* To institutionalize the structures and accountable leadership.

**ORGANIZATION ACTIVITIES**

1. Environmental Conservation

2. [Health](http://www.darudefo.org/?option=com_content&view=article&layout=edit&id=303)

3. [Agriculture](http://www.darudefo.org/?option=com_content&view=article&layout=edit&id=304)

4. [Economic Empowerment](http://www.darudefo.org/?option=com_content&view=article&layout=edit&id=305)

5. [Savings and credit scheme](http://www.darudefo.org/?option=com_content&view=article&layout=edit&id=306)

6. [Education](http://www.darudefo.org/?option=com_content&view=article&layout=edit&id=307)

7. [Vocational Training Skills](http://www.darudefo.org/?option=com_content&view=article&layout=edit&id=308)

8. [Water and Sanitation](http://www.darudefo.org/?option=com_content&view=article&layout=edit&id=309)

9. Awareness raising on HIV/AIDs Education.

**INTRODUCTION**

Sustainable sources of wood fuel have diminished. Many poor families’ household budgets suffer from domestic energy expenses. Deforestation has become a worldwide epidemic due to poverty, pressures of population growth, and low innovations in the clean energy sector and so on.

The project intends to establish a very useful model to compress recycled materials such as paper, cardboard, sawdust, soil and organic waste, to make fuel for cooking, which is equal or superior to charcoal. The resultant briquettes are also cost-effective and can be made to produce less smoke, thus being beneficial in terms of human health.

**PROBLEM**

Uganda is predominantly an agricultural country with above 85 percent of its people engaged in growing crops and rearing domestic animals. Uganda is an energy-deficient country, with supply unable to meet demand – for both domestic and industrial use. About 98 percent of energy consumption need of rural Uganda is met from biomass sources derived from the forest, shrub land, and animal waste and crop residues with lots of smoke having direct negative impact on environment and health, especially causing respiratory and eye diseases ---- cooking is associated with long hours spent collecting increasingly scarce wood. The diminishing wood fuel supplies and the increasing prices of both firewood and charcoal make it difficult for some households to cook more than one meal a day.

### According to “[National Census Main Report (2014) - Uganda Bureau of Statistics](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&uact=8&ved=0ahUKEwjo4e3O-5bbAhVMDMAKHbYND3gQFgg4MAM&url=https%3A%2F%2Fwww.ubos.org%2Fwp-content%2Fuploads%2Fpublications%2F03_20182014_National_Census_Main_Report.pdf&usg=AOvVaw2JeB3nqGmmPpjnaCd430a-)” use of clean power through provision of alternative energy sources would yield two benefits; first it would reduce the heavy reliance on wood fuel as the main source of fuel for cooking hence protecting the environment and second, it would also improve the health of especially women through reduced exposure to smoke from wood fuels. The majority of households used wood fuel as the main source for cooking as shown in table 5.2. Overall, 71 percent of the households used firewood for cooking with 85 percent in the rural and 31 percent in the urban areas.

In the region, areas in particular need of production of charcoal briquettes and energy saving stoves due to the scarcity of firewood and trees for charcoal-making. In the past, community members could easily collect firewood, but today community members are reluctant to share their dwindling resources due to the scarcity and escalating prices.

**AIMS AND OBJECTIVES OF THE PROJECT**

* To reduce environmental pollution by converting agro-waste into smokeless Briquette charcoal fuel to ensure young children’s health care
* Develop cheap cooking fuel to substitute charcoal/wood fuel that is contributing to environmental degradation

* To create income generating activity for women through sale of surplus Briquette charcoal pellets produced to enable them provide school fees to their vulnerable children and other basic needs.

# PROJECT ACTIVITIES

1. Research and introduce briquette for use both at households and small-scale industries to solve the ever-soaring prices and shortages of other fuel sources.
2. Training and equip rural communities especially women and women groups with skills of making briquette charcoal pellets as an affordable cooking fuel sources.
3. To establish a rural small scale factory to produce briquette, while creating employment to the local people and many youth who have just completed high school institutions.

**ANTICIPATED OUTCOMES/ JUSTIFICATION FOR PROJECT**

With only 5% of the rural population having access to electricity, more than 90% of the country’s total energy needs in Uganda come from biomass sources. Of this, wood accounts for 80%, charcoal 10% and crop residues at nearly 4%1. The project has the following key benefits:-

**(a) Energy supply:** Renewable energy innovation, switch from fuel-wood to charcoal briquettes from abandoned agro-wastes.

**(b) Energy demand:** Replacement of inefficient existing “household energy” and improvement of energy efficiency.

**(c). Carbon savings:** For every ton of biomass charcoal briquette, about 88 trees with a diameter of about 10 cm is saved from cutting for firewood and charcoal making, which will in turn serve as carbon sink.

**(d). Livelihood support:** New form of skills training for the community creating new form of job and a little supplementary income --- this could be a vehicle for a good social change

# BENEFICIARIES

The project is specifically targeting the women who most all the time manages the kitchen and experiencing the problems associated with cooking energy. Women are even of the same class of people who do trade in cooking fuel related activities such as selling charcoal, firewood

The project is targeting to benefit direct 160 members as well as families from 9 villages in the Busongara south constituency. Even many more are likely to benefit as a result of the multiplier effect of the project and adaptability.

**EVALUATION MECHANISM:**

The project will be evaluated from the point of view of members’ beneficiaries; every member will always draw-up a periodic work plan for implementing project activities.

Each member will therefore, at the end of the work plan period, evaluate the level of achievement of the set objectives and targets. There will be a general internal evaluation by the management committee and all the drawing up new strategies and setting of targets.

Regular reports, pictures and expenditure receipts will be sent to the project sponsor every three month.

# SUSTAINABILITY OF BRIQUETTE PROJECT

It shall be a role of every member especially women to make sure that the project sustains itself even beyond funding through:

1. Income raised from the sale of dry pellet (briquette charcoal) and sell of clay (stoves)
2. Voluntary collection of raw materials.
3. Local contributions.
4. Practical skills exposure and innovation etc.

The project shall move from group benefit to household in terms of profitability in the community.

**TRAINING:**

To ensure the success of this project and the spread of the innovation to benefit a wider community, continuous training of the members and other people in the locality is important. We will continue with training periodically, and also continue collaborating with other groups and CBOs to ensure the spread of this knowledge and skills on sustainable project and environmental conservation.

# MILESTONES OF SUCCESS:

It shall be the role of the management committee and the members to ensure that the project yields tangible results i.e.

* Over 80% of rural household adopts the use of Briquette charcoal fuel.
* Women shall easily access briquette charcoal pellets as affordable and reliable cooking fuel since many would hardly prepare more than one meal a day due to high and increasing prices of paraffin and gas, thus resorts to the making and selling of Briquette dry pellets fuel as an income saving and business.
* Over 70% of women been trained and acquired skills in the making of Briquette for self-reliance and able to take back their children to school plus providing other basic needs.

# TIME FRAME/WORK PLAN

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | Activities | **Months** | | | | | | | | | | | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
|  | Receiving of a grant |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Purchasing of equipment and fabrication |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Transportation of equipment and fabrication |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Air/Radio briquette talk |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Site preparation and equipments installation |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Training and inducting members |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Community sensitization about Briquette |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Training of women & women groups |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Production of Briquette fuel |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Monitoring and evaluation |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Reporting project progress to Donor |  |  |  |  |  |  |  |  |  |  |  |  |

**INFORMATION DISSEMINATION (PROMOTING THE PROJECT)**

It will also conduct practical orientation demonstration on the production and use of briquettes and its economy; and an educational develop a program on the promotion of briquettes as a better alternative source of energy for cooking and heating purposes.

Showcasing briquette-making and its many advantages will be an important method for promoting uptake of the technology in targeted localities.

**PROCESS**:

Briquette is a new innovation alternative source of cooking fuel that can be used both domestic and in small scale industries. Briquette is made from waste products (coffee, rice husks, banana peels, charcoal dust, and sawdust) –the waste ground and the products mixed with water in various proportions. The pellets are then granulated using locally fabricated moulds before being left to dry on the sun and then packaged.

Apparently, grass-root people find it difficult to start a new initiative for self-help, without mobilizing for external support to spring board activities. The briquette project will assist the rural community by providing an alternative source of fuel to substitute wood fuel.

ADDITIONAL INFORMATION ON THE BRIQUETTE CHARCOAL FUEL PROJECT

We will train 160 families from 9 villages. Our major target is to train women and adolescent mothers but also interested (men) may attend the training so that they can also support women (their wives) and adolescent mothers in this project that may turn out into a supplementary source of income to their families.

Our aim is to ensure that women and entire community learn of and adopt the use of briquette as available, healthy subsistent to charcoal.

**WHERE?**

The source of briquettes will be the mini-factory and the trained women

* The mini-factory will have a sales unit
* The trained women in each village will form a group and start a village briquette sales centre (satellite sales units).

The mini-factory is a key income generating component intended to sustain the project through producing briquettes for sale. The women will produce briquettes for their own use and sell the surplus through “satellite sales units” that will be supported by the mini- factory.

**WHEN?**

Actual production of briquette will start 3 months after commencement of the project. The saleof briquettes is most likely to start in the 4-5 months of the project.

**ESTIMATED PRODUCTION-SALES PROJECTION PER WOMAN MONTHLY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Period/ months** | **Quantity produced (tins)** | **Quantity used per month & Remarks** | **Expected income from sale of surplus** |
| 1 | 180 tins | 144 tins would be used for cooking in a family | 36 tins worth UGX 36,000 (€ 9) |
| 2 | 224 tins | 146 tins would be used for cooking in a family | 76 tins worth UGX 76,000 (€18) |
| 3 | 265 tins | 150 tins would be used for cooking in a family | 115 tins worth UGX 115,000 (€28) |
| 4 | 285 tins | 154 tins would be used for cooking in a family | 131 tins worth UGX 131,000 (€32) |
| 5 | 302 tins | 160 tins would be used for cooking in a family | 142 tins worth UGX 142,000 (€35) |
| 6 | 360 tins | 160 tins would be used for cooking in a family | 160 tins worth UGX 160,000 (€39) |

# BRIQUETTE PROJECT BUDGET

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| --- | --- |
| ITEM | AMOUNT REQUESTED in USD |
| 2 boxes of water during the training | 10 |
| 3 nutrious meals for 160 women | 70 |
| Mixing bowels for 160 women | 270 |
| 30 fabrication for briquette moulds | 299 |
| 2 grinding mill pressers | 360 |
| Safety equipments like gloves, gum boots for 160 women | 694 |
| Packaging, branding, and radio talk shows | 916 |
| Train 160 women during workshops on how to make and market briquette pallets | 2381 |
| **TOTAL AMOUNT REQUESTED** | **$5000** |

REFERENCES

1.

Name : Nantongo Ruth

Email : [ruth@enventureenterprises.org](mailto:ruth@enventureenterprises.org)

Organization : ENVenture

2. Name : Aacat Sarah

Email : [sarah@rwae-ug.org](mailto:sarah@rwae-ug.org)

Organization : Rubirizi Women Association for Empowerment (RWAE)