

# UGANDA STOVE MANUFACTURERS LTD CARBON CREDIT MONITORING

## WHAT ARE THE CHALLENGES

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# BACKGROUND

- Uganda Stove Manufacturers Ltd (UGASTOVE) was until recently called UCODEA, short for Urban Community Development Agencies.
- It is a progressive improved stove business based in Kampala, Uganda, producing and selling both household and institutional stoves
- Name was changed to ease recognition and distinction as we look forward to branding/ patenting.

## BACKGROUND (cont'd)

The stove project benefited from a US EPA grant in 2004-2006, which funded the construction of production infrastructure, perfection of stove design, IAP monitoring, market research, part of the KPT costs, and design of business development processes to support the commercialization of the product.

Project won an award for the effort in stove design and improvement at the 3<sup>rd</sup> Biennial PCIA Workshop in Bangalore, India, March 2007.

## BACKGROUND (cont'd)

Successful IAP monitoring was done according to CEIHD monitoring protocols (Preliminary data shows that UGASTOVE's wood burning stove reduces CO by 54% and PM<sub>2.5</sub> by 49%)

KPT successfully done in 2006, follow up in 2007 (Field tests show that the stoves reduce the consumption of fuel by 38-58% compared to traditional stoves).

Lab GHG emissions tests carried out at UCB, enabled the drafting of the PDD based on the scientific data gathered during the said surveys.

Carbon credit program was launched in February 2005 at UC Berkeley, with the intention of registering the credits on the Gold Standard for VER.

In March 2007, the first consultative meeting was held in Kampala as required for the Gold Standard projects

In partnership with CEIHD, a monitoring plan was drafted and forwarded for approval on the Gold Standard

# What is a consultative meeting?

A convention of the project's stakeholders and any other interest groups that are likely to be impacted by the implementation of the project.

They include:

- The government
- NGOs
- Other stove producers and distributors
- Stove users
- Development partners

## Regulatory Framework in Uganda

- There is a DNA, as required of each party to the Kyoto Protocol.
- Structure of the DNA may differ from country to country
- The Minister responsible for environment approves carbon credit projects (both CDM/non CDM) and therefore signs the Letter of Approval.
- The minister is advised by the National Climate Change Steering Committee (NCCSC), a group of technical experts on climate change and policy issues
- The committee has a Secretariat that provides secretariat services.
- The DNA will only receive proposals from projects that satisfy the requirements of the National Environmental Management Authority (NEMA) which is responsible for conducting EIAs.

## Project approval

- The project has already received the “No objection” letter from the National Environmental Management Authority (NEMA)
- The second consultative meeting will soon follow
- Preliminary steps for obtaining the Letter of Approval have been taken
- For a project to be approved, it must fulfill the social development criteria set by the DNA

# **There is evidence to show that the project satisfies the social development criteria.**

- **Reduced fuel costs. On average the improved charcoal stove will save a household approximately \$130 USD over three years, and the improved wood stove will save approximately \$50 over three years.**
- **Urban households have improved access to energy (37-58% more effect from the same fuel).**
- **56 people have permanent direct employment, up from less than 10 people three years ago.**
- **The project employs both men and women directly or indirectly.**
- **Many women have set up home-based income generating activities using the stoves and ovens made by the project.**
- **Many people in the area benefit from the micro-credit arrangement which enables the poor households acquire the stove and pay for it in installments.**
- **Production of improved stoves has been scaled-up from less than 20 stoves per day to 200 stoves per day through more efficient use of the space available and technological changes in the production processes.**

- Human capacity is raised through the business development component of the project.
- The recording and accounting systems have been computerized to ease the processing of data and sharing of information.
- Better storage facilities.
- A distribution system has been set up to enable potential users of the stoves acquire them in the most convenient way possible (sales have risen three-fold).
- Mothers and children exposed to fewer hazardous air pollutants through reduced emissions of PM and CO.
- Output from the project is expected to rise to approximately 50,000 – 60,000 stoves per year within the next few years.
- Units employing the same manufacturing and distribution methods will be franchised to other suitable areas of Uganda in subsequent years.
- UGASTOVE is extending free repair services to the users of improved stoves as part of her corporate responsibility program, still made possible by carbon finance.
- UGASTOVE also has plans to partner with the local authorities in Makindye (Kampala) and later other urban centers to improve the infrastructure like access roads and drainage systems in poor settlements

# What are we monitoring?

**A great deal of monitoring has to be done to ensure that the project achieves the stated development and health improvement goals.**

**Primarily we have to monitor the numbers – stoves produced, sold, in use, damaged etc. However, we are also required to monitor user satisfaction.**

**Production and sales figures are entered directly into our accounting database. But these have to be verified by independent third party monitors.**

**Warranty cards are used to confirm that the carbon credits have been used at the point of purchase. We also retain user info as a monitoring reference.**

**An independent monitoring team maintains a user database using information gathered from warrant cards**

**User surveys will be conducted on a regular basis to assess user perception and satisfaction, and any leakage due to fuel switching**

**Stove performance with age will continue to be monitored through field based KPTs**

# Challenges encountered:

1. A sudden increase in the volume of data to be collected and records to be kept.

## Solution:

- Computerization
- Recruitment of more operational staff – we recently employed an Operations manager and Marketing manager to ensure cleaner recording and reporting.
- More stationery availed
- More meetings, more scrutiny to ensure conformity

# Challenges encountered:

## 2. Quality control:

**It becomes more challenging to ensure good quality production when you have to scale up a manual system**

### **Solution:**

**We have invested in mechanizing especially the ceramic liner production**

# Challenges encountered:

## 3. Marketing, distribution and sales:

**The credits are a function of the stoves distributed. The onus is on us to sell more stoves to generate more credits.**

### **Solution:**

- We have hired more sales and distribution staff.**
- We are planning to acquire more distribution trucks.**
- More awareness raising and advertising programs**
- Door to door micro-credit scheme to enable poorer people in the community pay for stoves in installments**

# Challenges encountered:

## 4. Bureaucracy:

**We have sometimes been forced to slow down our pace as a result of bureaucracy, especially when we have to seek a go-ahead from the government.**

**For instance it took us about two months and many follow ups to obtain the No-objection letter from NEMA**

## **Solution:**

**Start the process early enough and persist**

## Lessons learnt so far:

- **It takes quite a while to perfect a carbon credit monitoring plan.**
- **Partnership is key to designing and implementing a carbon offset program**
- **Once perfected, it can be a good source of funding to scale up household energy projects**
- **You need to take trouble to be orderly and systematic in whatever you do**
- **All round capacity building is still needed before we can exploit the opportunities fully**

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