

**\*\*\*\* Project Idea Note \*\*\*\***



*For The CDM Gold Standard*

*March 2012*

## 1. Summary:

Organic Perspectives wants to scale the deployment of the 'Envirofit G3300' improved wood stove—the most popular of three (3) models we are currently piloting—in the rural and peri-urban households of Uganda's Busoga Sub-Region (that's, the clustered districts of Kamuli, Buyende, Jinja, Luuka, Kaliro and Iganga). See picture on cover page.

By setting up 150 local "Project Extension Groups" (each aiming to sell at least 10 stoves a month) we shall distribute 18,000 stoves per year over 4 years (totaling 72,000 stoves)—a besought uptake of 24%—in a region of about 300,000 households.

The project comes at the cusp of our ongoing work both as Promoters of the 'Uganda Domestic Biogas Program' – UDBP and as Partners of one US-based nonprofit, where we are now selling<sup>1</sup> improved wood stoves (including the G3300) in Kamuli & Buyende.

The stove reduces biomass fuel consumption by 60% and cuts emissions by about 80%, according to the US Environmental Protection Agency's approved Title 40 Emission Measurement Methods—as applied by 'Envirofit' (<http://www.envirofit.org>). Locally—with the average household firewood consumption at 2,044kgs per year (according to GTZ)—each stove shall reduce 2.9 tonnes of CO<sub>2</sub> a year. With a lifespan of 5 years per stove, the project shall reduce 991,800 tonnes of CO<sub>2</sub> during the first CDM crediting period of 7 years—an average annual reduction of 141,685 tonnes of CO<sub>2</sub>.

Besides being cheap—costing the end-user only \$33 (before subsidy)—the Envirofit G3300 cookstove (designed in the US) has been internationally tested for efficiency and durability in the developing world. All Envirofit's stoves are designed at, and tested in partnership with, the 'Colorado State University Engines & Energy Conservation Lab'.

By nature of the cookstoves market, at least 60% of each year's capital needed to purchase stoves shall be recovered by the end of the same year—after an end-user subsidy of about 40%. That's, the stoves are purchased and sold the same year, bringing back about 60% of the original capital to be used for the subsequent year's orders.

We are seeking for a carbon investment of **\$1,893,426** spread over 4 years as below:

**Year 1:** > Purchase and shipping of 18,000 stoves: \$594,000.

> CDM consultation, project administration and warehousing: \$231,626.

**Year 2:** > 40% of cost for Purchase and shipping of 18,000 stoves: \$237,600.

> Verification, CDM registration and Administration/Monitoring: \$135,000.

**Year 3:** > 24,000 stoves purchase/shipping; Verification; Admin/Monitoring: \$347,600.

**Year 4:** > 24,000 stoves purchase/shipping; Verification; Admin/Monitoring: \$347,600.

The project will offset all debt at the end of the 5<sup>th</sup> crediting year from ≈ 730,800 CERs.

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<sup>1</sup> All carbon credits from the stoves we are currently selling belong 100% to our US-based partner referred to here and have been sold. This concept note is about Organic Perspectives' own cookstoves carbon project.

## 2. Sales and Marketing Plan:

### Overview:

- Our stoves are being sold through a grassroots '**Social Marketing Approach**'. In every Sub County where we work, we are setting up one '**Project Extension Group**' (PEG)<sup>2</sup> for each Parish. The PEGs are led by local farmers/women's groups.
- Our marketing approach was initially consolidated in **Kisozi Sub County** in Kamuli district. We are now replicating it in all the 13 Sub Counties of Kamuli and the 6 Sub Counties of Buyende—and shall ultimately cover the targeted neighboring districts.
- We have already set up 31 PEGs: 10 for the ten Parishes in Kisozi Sub County (Kamuli district); 5 for the five Wards in Buyende Town Council; 8 for the eight Parishes in Kidera Sub County and 8 in Bugaya Sub County (Buyende district).

### Establishment approach:

- Our PEGs are being evolved from the pre-existing '**Parish Farmer Forums**' (PFFs) under the "National Agriculture Advisory Services". Establishment of the PEGs is all but easy, as all PFFs are unionized by a '**Sub County Farmer Forum**' (SFF). Both the PFFs and SFFs thoroughly reach all farmers in a given Sub County. They are our initial contact points in every new Sub County that we take up.

### Market Development—the Chronological Process:

- Setting up the PEGs: we basically identify prospective PEG leaders (the PFFs) in an entire Sub County in a single day—in collaboration with the local SFF Chairpersons.
- This is followed by a one-day orientation meeting attended by the leader of each identified PEG within the Sub County. The meeting introduces the work of Organic Perspectives and our partners—highlighting our new project extension plan.
- The meeting showcases the Envirofit G3300 stove as an affordable alternative for households that are unable to install biogas digesters due to cost or the unavailability of feedstock; underscores key performances—energy efficiency, durability and the reduction of indoor pollution—and the retail prices are communicated. PEG leaders are trained to explain our underlying 100% carbon credit rights (i.e. in turn for the price subsidy) and the stoves' warranty terms and conditions.
- The Business Model is defined: each PEG has to place a cash order for their own demos of each stove type; use them to orientate folks within their Parishes; take upfront purchase orders from villages—in turn for a commission per stove sold.

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<sup>2</sup> Formerly referred to as "Project Extension Committee" (PEC).

## Market Establishment Structure (Per Sub County):

Timeline*	Activity	Enablers	Deliverables
Day 1:	<ul style="list-style-type: none"> <li>Setting up PEGs</li> </ul>	<ul style="list-style-type: none"> <li>Meeting with the SFF Chairperson</li> </ul>	<ul style="list-style-type: none"> <li>Identification of PEGs for all Parishes in the Sub County</li> </ul>
Day 2:	<ul style="list-style-type: none"> <li>A one-day orientation meeting for all PEG leaders in the Sub County</li> </ul>	<ul style="list-style-type: none"> <li>Mobilization by the SFF Chairperson</li> <li>Attendance of one representative from each PEG</li> </ul>	<ul style="list-style-type: none"> <li>Project orientation</li> <li>A showcase of the demos</li> <li>Business model definition</li> <li>Setting a date when cash orders for the PEGs' own samples shall be ready</li> </ul>
Day 3:	<ul style="list-style-type: none"> <li>Collection of cash orders for the PEG's own stoves samples</li> </ul>	<ul style="list-style-type: none"> <li>Each PEG should order at least one sample of the stove</li> </ul>	<ul style="list-style-type: none"> <li>Delivery of stoves from our Storehouse to PEGs</li> </ul>
Day 4:	<ul style="list-style-type: none"> <li>Collection of PEG purchase orders for local people</li> </ul>	<ul style="list-style-type: none"> <li>Update from PEG leaders on orders placed so far</li> <li>A minimum of 20 orders at a time (from one PEG or a group of PEGs) before being delivered to each Sub County local Supply Centre</li> </ul>	<ul style="list-style-type: none"> <li>At least 20 orders each shipping round</li> <li>Full or partial payment for the stoves in advance</li> <li>For partial orders, at least half of the retail price (UGX24,000) shall be paid—and cleared on delivery.</li> </ul>
Day 5:	<ul style="list-style-type: none"> <li>Giving out the stoves and issuing receipts</li> </ul>	<ul style="list-style-type: none"> <li>The stoves shall be offloaded at one main local store for each Sub County (chosen by PEG leaders)</li> </ul>	<ul style="list-style-type: none"> <li>All PEGs shall collect stoves and receipts on the same day at the sub county store (in Kisozi this shall be at the <i>Kulika Charitable Trust</i> or the Sub County Headquarters).</li> </ul>

\* The timeline here is not in terms of consecutive days of operation, but the sequence of activities—usually lasting one day.

### Incentivizing the PEGs—where their commission on sales shall come from:

Each PEG shall receive a cash commission of UGX3,000 per stove sold through them. This shall come from a slight increment of exactly UGX3,000 above our intended retail price of UGX48,000 at which the Envirofit G3300 stove shall be sold to the end-user.

### 3. Investment and Payback Schedule:

**Note:** For a 7-year crediting period, the project's implementation timeline shall be 8 years—as each year's CERs are calculated from the stoves sold the previous year.

Period	Investment needed from carbon buyer	No. of stoves disseminated	CERs
Year 1 (initial project construction)	\$825,626	18,000	
Year 2 (1 <sup>st</sup> crediting year)	\$372,600	36,000	52,200
Year 3 (2 <sup>nd</sup> crediting year)	\$347,600	54,000	104,400
Year 4 (3 <sup>rd</sup> crediting year)	\$347,600	72,000	156,600
Year 5 (4 <sup>th</sup> crediting year)	CER revenue will cover the project admin, monitoring & annual verification costs		208,800
Year 6 (5 <sup>th</sup> crediting year)	Costs covered by CER revenue		208,800
Year 7 (6 <sup>th</sup> crediting year)	Costs covered by CER revenue		156,600  (18,000 of the stoves are expired)
Year 8 (7 <sup>th</sup> crediting year)	Costs covered by CER revenue		104,400  (36,000 of the stoves are expired)
<b>Total:</b>	<b>\$1,893,426</b>	<b>72,000</b>	<b>991,800</b>

- The table is about the first crediting period. The project will apply for one renewal.
- The last batch of 18,000 stoves that will be sold in Year 4 of project construction—with no new purchases needed at that time—will return 60% (US\$356,400) of the original investment, mitigating the project's payback risk in the 5<sup>th</sup> crediting year.

#### 4. About Organic Perspectives:

Organic Perspectives is a local community environmental organization founded in 2007 and is registered with the **Kamuli District Community Development Office** as a CBO. Our goal is to protect the environment, promote food security and enhance smallholder farmers' incomes through sustainable and economically-viable agriculture.

The **Mission** for Organic Perspectives is to engage smallholder farmers in protecting forests, adopting organic gardening techniques and the use of modern renewable energy for sustainable livelihoods. Our **Vision** is to transform rural communities through biodiversity conservation, alternative energy and sustainable agriculture. We do this through agroforestry, energy efficiency/waste-to-energy and organic gardening projects.

Since 2008, Organic Perspectives has implemented a Community Agroforestry Project that has provided about 100,000 free saplings of fast-growing leguminous trees to local farmers in Buwanume Parish, Kamuli—in our partnership with 'Trees for the Future' ([www.plant-trees.org](http://www.plant-trees.org)) and the 'New Forests Project' ([www.newforestsproject.org](http://www.newforestsproject.org)). The trees help farmers to restore their degraded croplands through nitrogen-fixation.

Most of our tree species are palatable, nitrogen-rich animal fodder—e.g. Calliandra, Leucaena, Gliricidia and Sesbania. As most smallholder farmers are confined in small, fragmented pieces of land, the trees help them to adopt better livestock management systems, e.g. zero grazing. Many farmers have told us of an increase in milk production and fertility rate when their livestock is fed on Calliandra and Leucaena in particular.

Farmers receiving seedlings from Moses of Organic Perspectives, Namalembe (2009).



Our team is also working (since 2010) as 'Promoters' for the **Uganda Domestic Biogas Program** in Kamuli and Buyende districts. We have installed over 60 fixed

dome household biogas digesters, many of them now fully functional—and we continue to engage a big number of prospective households for new digesters each month.



A biogas plant under construction in Bulindi Zone – Nabwigulu Sub County (2011).

One of our biogas Masons installing a biogas digester in Kigingi, Nkondo – Buyende (2011)



At the crossroads of agroforestry and biogas, innovations from the two components merge into organic farming systems—using the nitrogen-fixing trees as green manure and the residual bio-slurry as natural fertilizers. We also currently have arrangements to train farmers on the use of bio-slurry to make poultry feeds and organic pesticides.

Lately, we also entered into partnership with 'UpEnergy' and 'Impact Carbon' on the dissemination of improved wood and charcoal cookstoves in the Busoga Sub-Region. We have been marketing the stoves in Kamuli and Buyende districts since early 2012.

Photos and updates from our ongoing projects are on our Facebook page:  
<http://www.facebook.com/pages/Organic-Perspectives/111992448904815?sk=wall>

### **Organizational structure:**

The leadership of Organic Perspectives is represented at 3 levels—from the top management team to our local community project extension network. These are:

- i) The Board of Trustees: 5 members
- ii) The Executive Committee: 3 members (targeted for expansion to 6)
  - Kalulu Anthony (Founder/Patron)
  - Mugabi Solomon (Executive Director)
  - Baleese Moses (Field Project Coordinator)
- iii) Local 'Project Extension Groups' (PEGs)—the local community groups that we set up to extend our project activities (fundamentally at Parish level).