

## Market Assessment Context

This Executive Summary is part of the Ugandan Market Assessment conducted by the Global Village Energy Partnership (GVEP) and Accenture Development Partnerships (ADP) on behalf of the Global Alliance for Clean Cookstoves. Four assessments were conducted across East Africa in Kenya, Uganda, Tanzania and Rwanda as part of a broader effort by the Alliance to enhance the sector market intelligence and knowledge. They are intended to provide a high level snapshot of the sector (based on mid 2012). Further detail on these assessments can be found at the end of this document.

## The Ugandan Cookstove Market

As with much of East Africa, the Ugandan cookstoves sector came to the fore in the 1980s due to concerns over deforestation and desertification<sup>i</sup>. The newly established Ministry of Energy (MoE) initially set improved cookstove (ICS) adoption targets of 2.45m households, but technology limitations and a lack of resources prevented the government from achieving this target. Similar challenges are still being felt today through the Energy for Rural Transformation Project (ERT2) (2009), part of the present government's ambitious Renewable Energy Policy (2007)<sup>ii</sup>.

Despite these challenges, activity has increased steadily, starting with the foundation of UgaStove and increased GIZ involvement in the 90s. Since then, other donors and carbon players have entered the market to support businesses and disseminate various models of stove. However, few ICS businesses operate at scale today, the largest (UgaStove) producing approximately 4000 stoves per month. Entrepreneurs and micro-businesses dominate the market, typically producing up to 100 stoves monthly. Meanwhile, the carbon market is reasonably advanced; UgaStove has already achieved Gold Standard and is receiving credits. Several others are in the pipeline.

Even with this increased activity, the bulk of the population (91%) is still using traditional biomass<sup>3</sup> and exposure to IAP is high, with 19,700 deaths per year. From 2005 – 2009, national ICS adoption stagnated around 8.4%, and in some areas such as the western region (-0.6%) and northern region (-6.7%), ICS use actually decreased<sup>iii</sup>. Because of this, there is continuing pressure on biomass resources and access to modern fuels remains a countrywide issue. As with many markets, there are stark differences between the urban and rural segments. Research has shown that many consumers in rural areas have the ability to pay for expensive items and 36% now pay for fuelwood<sup>iv</sup>, suggesting that the economic case for ICS is relatively strong. In urban communities, especially Kampala, adoption is rising<sup>v</sup>, where people benefit from the centralized production and availability of ICS.

The main conclusions of the Market Assessment are illustrated in the table below.

|                                       |   | Situation  | Hypothesis   |
|---------------------------------------|---|--|--|
| <b>Foster an enabling Environment</b> | <i>Regulation &amp; Testing</i>         | Uganda National Bureau of Standards (UNBS) has energy regulations but is yet to include ICS or indoor air pollution (IAP) standards. Testing ICS is expensive.   | Developing ICS, testing & IAP standards, in parallel with subsidizing testing costs, can provide a baseline to improve the quality of stoves in the market.  |
|                                       | <i>Awareness</i>                        | Many in high income urban segments aspire to modern fuels <sup>4</sup> , although safety concerns remain. For many, there is high ability to pay but almost no willingness to spend on ICS <sup>vi</sup> . | Increasing consumer awareness of quality ICS' and modern fuels will help to increase demand for ICS. Increasing awareness in the sector around the health impact of stoves will stimulate further product development. |
|                                       | <i>Support &amp; Funding</i>            | The Renewable Energy policy and ERT2 program both aim to dramatically increase ICS adoption but lack some of the necessary resources to do so.   | Aligning interventions with government policy, to achieve clean fuel & ICS targets, is necessary for sustained adoption across the market.   |
|                                       | <i>Knowledge Capital &amp; Transfer</i> | Recent, comprehensive consumer research does not exist & some high potential segments have been excluded from older research. UBOS collects limited data on ICS adoption.                                  | Closing knowledge gaps, through the UBOS household survey & understanding consumer behavior will allow sector players to better tailor their programs and marketing.   |
| <b>Cookstoves Value Chain</b>         | <i>Design</i>                           | Producers lack incentives to improve the quality of their product, and those who are selling high performing stoves find it difficult to make their product stand out in the market.                       | Supporting 'high potential' producers to translate test results & industry benchmarks into product improvements will help to further increase the quality of stoves available.   |
|                                       | <i>Materials / Fuel</i>                 | The price of biomass has increased drastically: charcoal is more expensive than most modern fuels in urban areas. Poor access & distribution prevents increased adoption of cleaner fuels.                 | Helping fuel businesses & removing barriers to switching to cleaner fuels (e.g. LPG & briquettes), could reduce deforestation & improve livelihoods.   |
|                                       | <i>Production</i>                       | Producers struggle with access to finance & the marketing expertise to enter new markets. Female headed businesses are less common <sup>vii</sup>  | Skill development and more opportunity to access finance can address the gender balance and provide resources to scale up & reach new markets.   |
|                                       | <i>Sales &amp; Distribution</i>         | The uptake of institutional stoves <sup>viii</sup> is generally low. End user finance is limited with MFIs lacking knowledge. 'Free trial' pilots have shown promising results in some areas.              | Supporting MFIs with institutional financing portfolios and investigating innovative financing mechanisms could increase ICS sales in certain areas.   |

### Summary of Illustrative Priority Intervention Options

The main challenges to growing a successful commercial ICS market in Uganda appear to be; the low consumer awareness and demand for ICS and less developed production, marketing and distribution

processes. If these aspects can be addressed, there is an opportunity for Uganda to build on the strength of its focused government and advanced carbon pipeline, to drive up the adoption of high quality ICS and clean fuels across the country. The main intervention options to achieve this can be described as:

- Develop comprehensive knowledge on the market, through research into consumer behavior and expansion of national data collection on ICS adoption
- Create and formalize cookstove and IAP standards, whilst supporting businesses in testing, developing and then producing at scale to drive up the supply of quality ICS on the market
- Support the government to implement its policy commitments and achieve its ambitious ICS adoption and fuel use targets
- Build demand through cross sector awareness campaigns, focusing on health implications, benefits of ICS and clean fuels
- Support a switch to cleaner fuels; improve the storage capacity, distribution network, affordability and access to LPG and, support briquette businesses to increase their capacity and outreach

### Market Assessment Approach

- This is one of sixteen such assessments completed by the Alliance to:
  - Enhance sector market intelligence and knowledge; and
  - Contribute to a process leading to the Alliance deciding which regions/countries it will prioritize.
- Four assessments were conducted across East Africa in Kenya, Uganda, Tanzania and Rwanda as part of a broader effort by the Alliance to enhance the sector market intelligence and knowledge.
- Each assessment has two parts:
  - Sector Mapping – an objective mapping of the sector; and
  - Intervention Options – suggestions for removing the many barriers that currently prevent the creation of a thriving market for clean cooking solutions.
- In each Alliance study a combination of GVEP, ADP, and local consultants spent 4-6 weeks in country conducting a combination of primary (in-depth interviews) and secondary research. They used the same Market Assessment ‘Toolkit’ for each country so that comparisons can be made. The Toolkit is available free of charge to all organizations wishing to use it in other countries.

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## References

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- <sup>i</sup> Report on First Ugandan National Stoves Workshop, 1991
- <sup>ii</sup> Hilary Onek, Minister of Energy, 2009, Rural Electrification Agency (REA) workshop
- <sup>iii</sup> Uganda Bureau of Statistics (UBOS) Household survey, 2009/2010
- <sup>iv</sup> Shell Breathing Space research, 2007
- <sup>v</sup> Uganda Bureau of Statistics (UBOS) Household survey, 2009/2010
- <sup>vi</sup> Shell Breathing Space research, 2007
- <sup>vii</sup> Prossy Sebunya, Business Energy Efficient Technology Association, Market Assessment 2012
- <sup>viii</sup> Ugandan Institutional Stoves, P J Turyareeba, Forest Research Centre