Cookstove Sector of Ghana

A Baseline Study and Survey of Stakeholders

2014
Report Compiled by:

Julius Cudjoe Ahiekpor  
Centre for Energy, Environment, and Sustainable Development  
www.ceesdghana.org
Disclaimer

This report is a product of a synthesis of two reports: consumer segmentation survey commissioned by the Global Alliance for Improved cookstoves and Fuels and a nationwide survey of major stakeholders in the cookstove sector in Ghana commissioned by the Ghana Alliance of Clean Cookstoves supported by SNV and EC.

The objectives, methodologies and limitations of the two projects are elaborated in the respective final reports.

The interpretations, suggestions and opinions or points of view given are those of the author(s) and do not necessarily reflect the official position or policies of the funders and sponsors of these two projects.
Executive Summary

This report is a synthesis of the reports of two studies, consumer segmentation study and nationwide mapping of stakeholders in the cookstove sector, aimed to generate one single report to establish a baseline study for the improved cookstove awareness level in Ghana. The report is intended to enhance areas in the sector that require immediate awareness campaign programs to augment the uptake of improved cookstoves in the country. It will also serve as a point of reference for evaluating and assessing awareness programs that would be subsequently undertaken by other stakeholders in the sector.

The following key conclusions can be drawn from the two studies (mapping exercise and consumer segmentation study):

Major actors/stakeholders
The actors within the cook stove value-chain can be categorized into seven main groups as shown below:

- Consumers (End-users),
- Stove manufacturers (household, institutional),
- Fuel Producers,
- Financial institutions and international donor agencies,
- Distributors and retailers of stoves and fuels,
- Raw material suppliers, and
- Training and research institutions.

Target consumer segment
The two key segments of consumers that clean and efficient cooking technologies promoters can target are:

1. **HI-MI Urban Charcoal**: High and middle income urban charcoal users are the households, for whom the potential for improved cookstoves and fuel adoption is highest due to their purchasing power and the fact that they are facing high cooking fuel prices. They account for 17% of the market, roughly 1.04 million households.

2. **HI-MI Rural Wood**: High and middle income rural wood users also represent a significant opportunity for marketers of clean cooking solutions. Although the cost of fuel is less of an issue for them, their
purchasing power enables them to invest in modern home appliances. In areas where wood is becoming harder to collect in particular, they might have an additional incentive to consider clean and efficient cookstoves. In addition, they may be sensitive to other incentives such as convenience, cleanliness or speed-of-use. This segment represents 29% of the market or 1.8 million households.

**Cooking habit and household characteristics**

1. Amongst married couples, the wife is the main cook and is also the main person in charge of grocery shopping. Most women have at least one professional occupation or income-generating activity and develop strategies to save time on cooking tasks. Technologies which can help them manage their time are in high demand (microwave, LPG).

2. Women’s cooking behaviours underline the need for mobility and for better usage of space. Products which enhance their interior and make a statement about their social status are also in high demand (kitchen cabinet). Priorities for kitchen equipment focus on storage capacity (fridge, freezer), time-saving (microwave, LPG) and diversification of recipes (oven for baking).

3. Overall, improved cookstoves are largely within the financial reach of the target, but replacing one’s coal pot is likely to be quite low in their list of priorities compared to the acquisition of a microwave, a freezer or a blender.

**Fuel and Stove Preferences among consumers**

1. Consumers are familiar with a broad range of cooking options for each fuel type. The woodstove segment is still largely dominated by 3-stone fires although some alternatives exist (tire-rim, clay stove). The charcoal cookstove market is dominated by traditional coal pots and ‘Gyapas’. While the ‘Gyapa’ has convinced a broad consumer segment, many are still reluctant to use it because they have doubts about the robustness of the clay liner and the value of their investment. Safety issues and fuel shortages are driving some consumers away from the LPG category. Those who would still like to use LPG are particularly attracted to the 4 burner stove with oven, due to its versatility. LPG is often used to heat up food rather than for proper cooking and therefore competes with microwaves more than with other stoves.
2. Urban and rural targets regularly mix fuels. LPG users have to resort to charcoal because LPG is sometimes hard to find or to prepare specific recipes. Many charcoal users also have a LPG stove, although they don’t always use it. Wood users also use charcoal when it’s raining or when they are in a hurry. High prevalence of fuel mixing means that there is a lot of overlap between the various target groups and the types of stoves that can be promoted among them.

3. When selecting new cookstove consumers focus their attention on material quality first and foremost. Other important criteria include speed-of-use, aesthetics, portability, and versatility (grilling and baking options). Efficiency isn’t a purchase criteria but will drive loyalty. Lighting issues will be a strong barrier to the adoption of a product.

**Consumer financing**

1. Urban middle-income and high-income charcoal users enjoy a good level of access to financial services. They are served by several financial institutions and trust commercial banks in particular to take care of their savings. However, borrowing money from a bank or an MFI isn’t common among the target groups as this type of commitment conveys very negative associations (stress, harassment, high cost). Buying products on credit on the other hand is a familiar type of arrangement which all respondents are comfortable with.

2. Rural wood users are significantly less financially integrated into the financial market: few of them have access to formal savings services from a bank or a microfinance institution, even less so from loan services.

3. When it comes to offering financial services to help consumers invest in clean cooking solutions, formal loan services offered through financial institutions aren’t attractive, in part because domestic cookstoves are seen as non-productive assets and in part because the price point that respondents consider for such products doesn’t make a loan necessary.

4. The most attractive services are by far “payment plans”, referred to as “credit” by most Ghanaians. These are seen as more flexible and less risky than a loan. Although women know that vendors charge them more than the cash price for products purchased on credit, they don’t see this as a barrier to buying a non-productive good on credit.
5. In order to appeal to Ghanaian women, financial services for improved cookstoves should seek to mimic the principles of the traditional “credit”: limited paperwork, flexible payment terms, no formal interest, convenient payment collection mechanism

Stove manufacturing sector

1. Different types of stoves made from different materials are manufactured locally in Ghana. Manufacturers have the capacity and have been fabricating both domestic and institutional stoves for years. The domestic stove sector is well established and diverse than the institutional stoves. It was observed that production of some institutional wood stoves for activities such as fish smoking, oil processing, soap making, cooking, and pito brewing is done on demand.

2. Some stove types or designs can only be found in certain parts of the country. Improved/efficient stoves are manufactured mostly in Greater Accra and Ashanti Regions. Several [modified] firewood stoves are manufactured in the Northern Region. These are not necessarily improved/efficient stoves but firewood stoves made from metals (tyre rims and scrap metals). Interestingly, there is high demand for these stoves suggesting that households are moving away from the conventional three-stone and mud type firewood stoves.

3. Most manufacturers do not test their stoves. Only 35% test their stoves and most of them are manufacturers of improved cook stove. Manufacturers of other types of stoves perform their own tests which do not follow any standard protocols. These tests are performed basically to determine if the stoves would work.

4. 47% of manufactures claim they do not perform any testing on their stoves due to lack of testing facilities.

5. 84% of the manufacturers require less than GHC 5,000 to support and expand their businesses.

6. The price of stove is mostly dependent on the material of construction and size. The prices also vary significantly in each region for the same size and type of stove.

7. It is perceived by manufacturers that lack of finance, lack of awareness, marketing and government policies are the main barriers affecting their business.
8. Capacity building activities should focus on metal fabrication, financial management, book keeping, welding and spraying to enhance the quality of their work.
9. This sector is dominated by males.

**Stove distribution and retailing**
1. **The stoves are mostly sold in shops.** Although few of the shops are located in different parts of town within the region, most shops are located in the main market centers of the respective regions such as Aboabo market in Tamale and Central market in Kumasi.
2. **Word-of-mouth** remains the most important channel to spread awareness and generate customer confidence. About 90% of stakeholders use this means to market their stoves.
3. **The final market price of stoves is determined by the seller.** The price is largely dependent on the manufacturers/supplier price and the seller’s own [profit] margin. Some of the stoves have fixed prices by the suppliers but about 90% of the price of stoves is determined by the retailer and are usually negotiable to a certain minimum amount. The prices also vary significantly in each region for the same size and type of stove.
4. **Main barrier to doing business is access to finance.** 60% of retailers claim providing access to finance could help enhance their business. 16% believe increased awareness of the sector could enhance their business.

**Fuel Producers**
1. Mostly located in remote villages producing charcoal and firewood.
2. Most of them get the raw material (wood) for production for free from the bush.
3. The price of charcoal is usually determined by intermediaries (middlesmen) who buy them from the producer for further distribution. This price is usually dependent on the season and quality of charcoal.
4. Besides, access to finance, government policy, marketing and access to wood for the production of charcoal were identified by fuel producers as challenges facing their business. The producers claim that wood is increasingly becoming scarce and that they have to go deep into the forest to harvest wood to produce charcoal or buy the wood.
5. About 69% of fuel producers want technical training in financial management.

Financial Institutions and International Agencies

1. Not many financial institutions or International agencies are involved in the [clean] cookstove sector.
2. 50% have funded and will continue to fund activities in the cookstove sector.
3. Most, 90%, of the funding goes to support manufacturing and distribution of stoves.
4. 33% of respondents provide funding because it fits in their company strategic goals, 50% provide it purely as business while 17% provide funds to support their SME drive. Most of the funding is also provided by either financial NGOs or International donors.
5. The funding usually is in the form of loans (83%).

Training and Research Institutions

1. 77% of respondents in this sector have heard of GHACCO.
2. There are just a few capacity builders in this sector involved in training, research and advocacy. Capacity building activities are generally low – almost non-existing.
3. Capacity builders see inadequate funds as a major challenge facing the development of the cookstove sector. Other challenges identified are
   - Inadequate information in the sector
   - Poor quality of some stoves
   - Limited standardization in the sector
   - Poor packaging for consumers
   - In-fighting among stove manufacturers while there is a large and available market
4. Their areas of specialisation are fuel consumption, protection of forest resources, and air pollution and climate change
5. Most of them know about carbon financing.
Table of Content

Disclaimer.....................................................................................................................i
Executive Summary ..................................................................................................... ii
   Major actors/stakeholders......................................................................................... ii
   Target consumer segment...................................................................................... ii
   Cooking habit and household characteristics..................................................... iii
   Fuel and Stove Preferences among consumers................................................... iii
   Consumer financing............................................................................................... iv
   Stove manufacturing sector..................................................................................... v
   Stove distribution and retailing .............................................................................. vi
   Fuel Producers....................................................................................................... vi
   Financial Institutions and International Agencies ............................................... vii
   Training and Research Institutions........................................................................ vii
List of Figures............................................................................................................. x
List of Tables............................................................................................................. xi
List of Abbreviation and Acronyms ......................................................................... xii
1. Introduction............................................................................................................. 1
2. Detailed analysis of the cookstove and fuels value chain.................................... 1
   2.1 Summary overview of stakeholders................................................................. 1
   2.2 Database of stoves manufactured .................................................................... 2
   2.3 Pricing of stoves ............................................................................................... 5
   2.4 Marketing strategy............................................................................................ 8
   2.5 Database of stakeholders in the value chain.................................................. 9
3. Consumer preference: Key issues in stove selection ........................................... 35
4. Proposed advocacy plan ......................................................................................... 37
   4.1 Target market segment.................................................................................... 37
   4.2 Communication strategy.................................................................................. 38
   4.3 Key Product Features...................................................................................... 39
   4.4 Proposed mechanism/ mediums to be used to carry message........................ 40
5.0 Monitoring and Evaluation Plan........................................................................... 42
List of Figures

Figure 1: Types of locally manufactured stoves .................................................................4
Figure 2: Determinants of stove price ................................................................................5
Figure 3: Consumers criteria for purchasing a new cookstove ........................................35
List of Tables

Table 1 Lifespan of stove manufactured.................................................................5
Table 2 Price of stoves in Ghana (Manufacturers Quote)........................................6
Table 3 Price of stoves in the Market (Distributors/Retailers Quote)......................6
Table 4 Stoves common in markets across the country.............................................8
Table 5 List of manufacturers in the value chain with their locations, contacts and production capacity........................................................................................................9
Table 3 Actors within the cookstove value chain with contact details and location...16
Table 10 Key Regions for HI-MI Urban Charcoal Users...........................................38
Table 11 Key Regions for HI-MI Rural Wood Users.................................................38
List of Abbreviation and Acronyms

BAR – Brong Ahafo Region
BoG – Bank of Ghana
CDM – Kyoto Clean Development Mechanism
CEESD – Centre for Energy, Environment and Sustainable Development
CF – Carbon Finance
COTVET – Council for Technical and Vocational Education and Training
CSIR – Council of Scientific and Industrial Research
CR – Central Region
ER – Eastern Region
GACC – Global Alliance for Clean Cookstoves
GhACCO – Ghana Alliance for Clean Cookstoves
GAR – Greater Accra Region
GHC – Ghana Cedis
GLSS – Ghana Living Standards Survey
IAP – Indoor Air Pollution
IEA – International Energy Agency
ICS – Improved Cookstove
IIR – Institute of Industrial Research
ISO – International Organization for Standardization
LPG – Liquid Petroleum Gas
MFI – Microfinance Institution
NAB – National Accreditation Board
NCTE – National Council for Tertiary Education
NGO – Non-Governmental Organization
NR – Northern Region
KNUST – Kwame Nkrumah University of Science and Technology
KPREEE – Kumasi Polytechnic Renewable Energy and Energy Efficiency Center
RI/EW – Relief International/Enterprise Works
SME – Small and Medium scale Enterprise
SNV – Netherlands Development Organisation
UER – Upper East Region
UNDP – United Nations Development Program
UWR – Upper West Region
USD – US Dollars
VR – Volta Region
WR – Western Region
1. Introduction

This report is a synthesis of the reports of two studies commissioned in 2013 to conduct a fact based survey and assessment of the cookstove sector in Ghana:

1. A consumer segmentation study commissioned by GACC with the aim of identifying the three consumer segments with the greatest potential to reach scale for improved cookstove and fuel adoption in Ghana and to better understand the needs of users and to reveal the market triggers that can facilitate large scale and sustained uptake of clean cooking technologies; and

2. A nationwide mapping of stakeholders in the improved cookstove sector in Ghana with the aim of identifying and categorizing all stakeholders in the cookstove value chain and to collect important information on their activities commissioned by GhACCO with support from EC, UNDP and SNV.

The synthesis is aimed at generating one single report to establish a baseline study for the improved cookstove awareness level in Ghana. The report is intended to enhance areas in the sector that require immediate awareness campaign programs to augment the uptake of improved cookstoves in the country. It will also serve a point of reference for evaluating and assessing awareness programs that would be subsequently undertaken by other stakeholders in the sector.

2. Detailed analysis of the cookstove and fuels value chain

This section presents an analysis of the responses obtained from stakeholders who were interviewed across the country. As indicated in the introductory sections, stakeholders identified and interviewed were classified as stove manufacturers; fuel producers; financial Institutions and international donor agencies; distributors and retailers of stoves and fuels; raw material suppliers; training and research institutions; and consumers.

2.1 Summary overview of stakeholders

The survey revealed that 98% of all stakeholders in the cook stove sector are owned by the private sector. About 75% of the privately owned businesses in the cookstoves sector are not registered with any state institution.
The remaining 25% are mostly registered with the district assemblies.

Ownership of business is fairly balanced in terms of gender. About 49% of business owners are male, 44% are female while about 7% are jointly owned by both sexes. However, there is wide variation in gender distribution across each value chain. For instance there are more males involved in the stove manufacturing sector while the distribution and retailing sector is female dominated across the country.

Most stakeholders self-finance their businesses and the amount of money invested annually is generally not more than GHC 5000.

According to all the respondents across the country, the major barriers/challenges affecting their business are access to finance and awareness creation. They agree that, increasing awareness in the sector would help improve their business and therefore expect more activities targeted at increasing public awareness about cookstoves and means of getting easy access to funds to support the business.

Other expectations of the stakeholders are;

- Elimination of traditional cookstoves and promotion of improved/efficient stoves,
- Development of standards for cookstoves,
- Building capacity of local manufacturers to produce quality stoves,
- Increased adoption of improved cookstoves by Ghanaian households,
- Subsidize stoves for the poor, and
- Using the cookstove industry to eradicate poverty.

### 2.2 Database of stoves manufactured

Different types of stoves made from different materials are manufactured locally in Ghana, figure 1. Manufacturers have the capacity and have been fabricating both domestic and institutional stoves. Each Region has a unique stove design but the stoves can generally be categorized as:

- Conventional charcoal stove (coalpot);
- Improved charcoal stove with clay lining;
- Improved firewood stove;
- Metal firewood stove;
- LPG stoves;
- Electric stove;
- Ethanol stove;
- Saw dust stoves;
- Kerosene stoves; and
- Palm kernel/pellets/briquettes stoves.

These stoves are produced from different materials (metals) as follows:

- Mild steel;
- Tyre rim;
- Scrap metal;
- Aluminium cast; and
- Cast iron.
<table>
<thead>
<tr>
<th>Charcoal stove (square)</th>
<th>Charcoal stove (Round)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firewood stove (Tyre rim)</td>
<td>Elsa Stove (Briquette stove)</td>
</tr>
<tr>
<td>LPG Single burner stove</td>
<td>LPG stove</td>
</tr>
</tbody>
</table>

**Figure 1: Types of locally manufactured stoves**
According to the manufacturers, the lifespan of the stoves depend on the material used for construction and on the end-user. However, they estimate that the stoves should have lifespan as indicated in the table 1 below.

**Table 1 Lifespan of stove manufactured**

<table>
<thead>
<tr>
<th>Material of construction</th>
<th>Expected Life span</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyre rim</td>
<td>6-10 years</td>
</tr>
<tr>
<td>Mild steel</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Cast iron</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Aluminium cast</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Scrap metal</td>
<td>1-2 years</td>
</tr>
</tbody>
</table>

**2.3 Pricing of stoves**

The price of stove is mostly dependent on the material of construction and size. The final price of stove is determined base on several factors as indicated in figure 2. The prices also vary significantly in each region for the same size and type of stove. Table 2 and 3 presents the wholesale prices (manufacturer’s price) and retail prices for each group of stove.

![Figure 2: Determinants of stove price](image-url)
### Table 2 Price of stoves in Ghana (Manufacturers Quote)

<table>
<thead>
<tr>
<th>Type of Stove</th>
<th>National, GHS</th>
<th>Regional Mean Prices, GHS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Price Range</td>
<td>Ashanti Region</td>
</tr>
<tr>
<td>Traditional Charcoal stove (Scrap metal)</td>
<td>2.5-4</td>
<td>2.5</td>
</tr>
<tr>
<td>Tradition charcoal stove (Mild steel/aluminium cast)</td>
<td>5-30</td>
<td>13.8</td>
</tr>
<tr>
<td>Tyre Rim Charcoal stove</td>
<td>20-30</td>
<td>25</td>
</tr>
<tr>
<td>Improved Charcoal stove</td>
<td>12-36</td>
<td>17</td>
</tr>
<tr>
<td>Firewood stove (Scrap metal)</td>
<td>5-7</td>
<td>6.4</td>
</tr>
<tr>
<td>LPG stove (Local)</td>
<td>35-120</td>
<td>55.4</td>
</tr>
</tbody>
</table>

### Table 3 Price of stoves in the Market (Distributors/Retailers Quote)

<table>
<thead>
<tr>
<th>Type of Stove</th>
<th>National, GHS</th>
<th>Regional Mean Prices, GHS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Price Range</td>
<td>Ashanti Region</td>
</tr>
<tr>
<td>Traditional Charcoal stove (Scrap metal)</td>
<td>2.5-25</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Tradition charcoal stove</strong></td>
<td>6-45</td>
<td>15</td>
</tr>
<tr>
<td>(Mild steel)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tyre Rim Charcoal stove</strong></td>
<td>12-60</td>
<td>25.7</td>
</tr>
<tr>
<td><strong>Improved Charcoal stove</strong></td>
<td>10-36</td>
<td>17.5</td>
</tr>
<tr>
<td><strong>Firewood stove (Scrap metal)</strong></td>
<td>5-7</td>
<td>6.4</td>
</tr>
<tr>
<td><strong>Tyre rim Firewood stove</strong></td>
<td>12-60</td>
<td>22</td>
</tr>
<tr>
<td><strong>Saw dust stove</strong></td>
<td>5-7</td>
<td>6.5</td>
</tr>
<tr>
<td><strong>LPG stove (Local)</strong></td>
<td>20-90</td>
<td>55.4</td>
</tr>
</tbody>
</table>
Table 4 Stoves common in markets across the country

<table>
<thead>
<tr>
<th>Type of Stove</th>
<th>Ashanti Region</th>
<th>Brong Ahafo</th>
<th>Central Region</th>
<th>Eastern Region</th>
<th>Greater Accra</th>
<th>Northern Region</th>
<th>Upper East Region</th>
<th>Upper West Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Charcoal stove</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>(Scrap metal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tradition charcoal stove</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>(Mild steel/alumium cast)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tyre Rim Charcoal stove</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved Charcoal stove</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firewood stove (Scrap metal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tyre rim Firewood stove</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saw dust stove</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>LPG stove</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

2.4 Marketing strategy

The stoves are mainly sold in shops. However, most shops are located in the main market centres (traditional markets) of the respective regions such as Aboabo market in Tamale, Central market in Kumasi, Mallam Atta Market, Kaneshe market, timber market in Accra, etc. Only 12% of the respondents sell their stoves through exhibitions.
### 2.5 Database of stakeholders in the value chain

**Table 5: List of manufacturers in the value chain with their locations, contacts and production capacity**

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact</th>
<th>Location</th>
<th>Type of Stove (s)</th>
<th>Production capacity, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbah Welding And Fabrication</td>
<td>0247703097</td>
<td>Volta Region, Ho, Market Area</td>
<td>LPG stoves, Improved charcoal stoves, Firewood stoves</td>
<td>1200</td>
</tr>
<tr>
<td>Abdulai Workshop</td>
<td>0546906913</td>
<td>Upper West Region, Wa Municipal</td>
<td>Improved charcoal stove Coalpot Firewood stove</td>
<td></td>
</tr>
<tr>
<td>Abdul Basiru Mohammed</td>
<td>0209656134</td>
<td>Upper West Region, Wa Municipal</td>
<td>Saw dust stove Firewood stove</td>
<td>936</td>
</tr>
<tr>
<td>Abdul-Manan Metal Workshop</td>
<td>0203171106</td>
<td>Northern Region, Tamale, Dagbandabifong, Near SGSSB In Tamale</td>
<td>LPG Stoves Improved Charcoal Traditional Charcoal</td>
<td>Unknown</td>
</tr>
<tr>
<td>Abellon Clean Energy Ghana Ltd</td>
<td>Pragnesh Mishrah, 020222385 0542965206</td>
<td>Ashanti Region, Asafo, Kumasi</td>
<td>Pellet and Briquette stoves</td>
<td></td>
</tr>
<tr>
<td>Adciana Zinye</td>
<td></td>
<td>Upper East, Kyirer</td>
<td>Improved charcoal</td>
<td>612</td>
</tr>
<tr>
<td>Adongo Albert</td>
<td>0545503255</td>
<td>Upper East Region, Bolgatanga</td>
<td>LPG Traditional charcoal stove</td>
<td>40 Unknown</td>
</tr>
<tr>
<td>Adumpola</td>
<td></td>
<td>Upper East Region, Bongo, Akayonga, Near Akayonga Market</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Agya Boat Metal Works</td>
<td>Collins Ntiamoah, 0275190588</td>
<td>Ashanti Region, Kumasi</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Alice Coffie</td>
<td>0200246619</td>
<td>Volta Region, Ho</td>
<td>Institutional Stoves</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td>Contact Person 1</td>
<td>Contact Person 2</td>
<td>Region, City, Zone</td>
<td>Product</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------</td>
<td>--------------------------</td>
<td>--------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Alfred Metal Works</td>
<td>Alfred Afedomenyo</td>
<td></td>
<td>Ashanti Region, Mampong Municipal</td>
<td>LPG Stoves, Improved firewood stoves, Coalpot</td>
</tr>
<tr>
<td>Alidu Alhassah</td>
<td>0243481836</td>
<td></td>
<td>Ashanti Region, Kumasi, Suame Zone 6, Opposite Positive Micro Finance</td>
<td>Stove Manufacturer</td>
</tr>
<tr>
<td>All Is Good Ltd</td>
<td>0244897549</td>
<td></td>
<td>Eastern Region, New Juaben, Koforidua</td>
<td>Coalpot</td>
</tr>
<tr>
<td>All Shall Pass Metal Works</td>
<td>Antwi Boasiako Emmanuel</td>
<td></td>
<td>Ashanti Region, Mampong</td>
<td>Coalpot Firewood stove</td>
</tr>
<tr>
<td>Amoako Desmond</td>
<td></td>
<td></td>
<td>Eastern Region, New Juaben, Koforidua</td>
<td>Improved charcoal stove</td>
</tr>
<tr>
<td>Ankrah Metal Works</td>
<td>0208294467</td>
<td></td>
<td>Upper East Region, Near Metro Mass Station, Bolgatanga</td>
<td>Coalpot (Scrap)</td>
</tr>
<tr>
<td>Asedu Welding/Straightening Shop</td>
<td>Opoku Yaw Frank</td>
<td></td>
<td>Brong Ahafo, Techiman, Wangala lane.</td>
<td>Coalpot Saw dust stove</td>
</tr>
<tr>
<td>Atubga Sinaba</td>
<td>0201848324</td>
<td></td>
<td>Upper East region, Bolgatanga</td>
<td>Coalpot</td>
</tr>
<tr>
<td>Awal Mohammed</td>
<td>0266084178</td>
<td></td>
<td>Ashanti Region, Ejura</td>
<td>Firewood stove (Metal) Coalpot</td>
</tr>
<tr>
<td>Azaaman Metal Works And Fabrication</td>
<td>Isaac Quansah</td>
<td></td>
<td>Ashanti Region, Obuasi Metro</td>
<td>Firewood stove (Metal) Coalpot</td>
</tr>
<tr>
<td>Bernard Agbley</td>
<td>0247529010</td>
<td></td>
<td>Ashanti Region, Kumasi Suame Zone 6 And 7</td>
<td>Stove Manufacturer</td>
</tr>
<tr>
<td>Bernard Awuku</td>
<td>0244504971</td>
<td></td>
<td>Ashanti Region, Kumasi Suame Zone 9</td>
<td>Stove Manufacturer</td>
</tr>
<tr>
<td>Bismark</td>
<td>0275231325</td>
<td></td>
<td>Accra</td>
<td>Stove Manufacturer</td>
</tr>
<tr>
<td>Bukare Enterprise</td>
<td>0540631659</td>
<td></td>
<td>Upper East Region</td>
<td>LPG stove</td>
</tr>
<tr>
<td>Company Name</td>
<td>Contact Person</td>
<td>Region/Location</td>
<td>Product(s)</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------------</td>
<td>------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Cookclean Ltd</td>
<td>Erasmus Osei-Essah</td>
<td>Greater Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Daniel Gbemu</td>
<td>0245770463 0208208955</td>
<td>Volta Region, Keta</td>
<td>LPG stove</td>
<td></td>
</tr>
<tr>
<td>Dotse</td>
<td>0249510207</td>
<td>Central Region</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Duramanu Alijatu</td>
<td>0507193973</td>
<td>Upper West Region, Wa Municipal, Wa West District, Chogsia</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Edivine Kpetii</td>
<td>0242786743</td>
<td>Eastern Region, New Juaben, Koforidua Magazine</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Ekem Arts Pottery Ltd</td>
<td>Richard Ekem, 0244795459</td>
<td>Central Region, Winneba</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Emodie Engineering</td>
<td>Adu Kofi Murphy, 0244991144</td>
<td>Ashanti Region, Kumasi, Suame Zone 6</td>
<td>LPG stoves, Improved charcoal stoves, Improved firewood stoves, Traditional charcoal stoves</td>
<td></td>
</tr>
<tr>
<td>Eric</td>
<td>None</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Fati</td>
<td>0576200146</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Frimpong Mason</td>
<td>0277143238</td>
<td>Ashanti Region, Suame Zone 6</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Fusenni Issaka</td>
<td>0261292123</td>
<td>Ashanti Region, Kumasi, Moshie Zongo behind Zeba Mosque</td>
<td>Coalpot 11,700</td>
<td></td>
</tr>
<tr>
<td>Gagrapah Tech.Works (Ashmiu Ibn-Adam)</td>
<td>0243365021</td>
<td>Volta Region, Jasikan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghana Cylinder Manufacturing Company Limited (GCMC)</td>
<td>0302 811720 0302811698</td>
<td>ACCRA, Spintex Road</td>
<td>LPG Stove</td>
<td></td>
</tr>
<tr>
<td>Name of the Business</td>
<td>Phone Number(s)</td>
<td>Location/Address</td>
<td>Product</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>God Never Fails Welding And</td>
<td>Bernony Akpo 0277-644673/0545-506653</td>
<td>Ashanti Region, Obuasi, Bogobiri-born</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Fabrication Workshop</td>
<td></td>
<td>Again Junction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good God Metal Works</td>
<td>Asuako Richard, 0204296668</td>
<td>Ashanti Region, Mampong</td>
<td>Coalpot</td>
<td></td>
</tr>
<tr>
<td>GRATIS Foundation</td>
<td>Eric Kwame ANIM</td>
<td>Volta Region</td>
<td>LPG stoves</td>
<td></td>
</tr>
<tr>
<td>Greener Impact</td>
<td>Kassim 0570388869</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Gyapa</td>
<td>Titiati Atsu <a href="mailto:Macatsu@yahoo.com">Macatsu@yahoo.com</a></td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Gye Nyame Welding Workshop</td>
<td>Master Ackon 0246535457</td>
<td>Central Region, Swedru</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Halidu Adam</td>
<td>0248870726</td>
<td>Ashanti Region, Kumasi, Suame Zone 21</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Ibrahim Osman</td>
<td>0242-643224</td>
<td>Ashanti Region, Obuasi, Stadium Junction</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Innocent Abledu</td>
<td>0243785670</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Isaac Asamoah</td>
<td>0244057041</td>
<td>Ashanti Region, Kumasi, Suame, Opposite Anointing Pillars</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Issahaku Sowed</td>
<td>0546368504</td>
<td>N/R, Bulpetatuugbeni, Tamale, Lat: 9.39889 – Log: 0.83833</td>
<td>Coalpot</td>
<td>Unknown</td>
</tr>
<tr>
<td>Jacob Agyei</td>
<td>0267921370</td>
<td>Accra, Teshie</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Justice Agblor</td>
<td>0243821653, 0209416222</td>
<td>Volta Region, Hohoe, Near The Main Market Close To CRAN (Christian Rural Aid Network) Office</td>
<td>Stove Manufacturers</td>
<td></td>
</tr>
<tr>
<td>Kakpagyilli Doo Sani</td>
<td>Idrisu Seidu, 024125446</td>
<td>N/R, Bulpetatuugbeni, Tamale, Lat: 9.39889 – Log: 0.83833</td>
<td>Coalpot (Scrap metal)</td>
<td>3,900</td>
</tr>
<tr>
<td>Kakpagyilli Doo Sani</td>
<td>0243811911</td>
<td>NR/Tamale/Bulpela,</td>
<td>Coalpot (Scrap metal)</td>
<td>6,300</td>
</tr>
<tr>
<td>Name</td>
<td>Contact Number</td>
<td>Location Details</td>
<td>Product(s)</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------</td>
<td>------------------------------------------------------------</td>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>King Solomon</td>
<td>0244435680</td>
<td>Ashanti Region, Abuabo Ashanti Region, Railways/Scrap Dealers</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Koffas Metal Work</td>
<td></td>
<td>Brong Ahafo, Sunyani Area 3.</td>
<td>Coalpot</td>
<td></td>
</tr>
<tr>
<td>Kofi</td>
<td>0244880177</td>
<td>E/R, NJ, Ada</td>
<td>Improved charcoal stove</td>
<td></td>
</tr>
<tr>
<td>Kojo Obeng</td>
<td>0203170008</td>
<td>Central Region</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Kow Quansah</td>
<td>0245880194</td>
<td>Central Region</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Kwaku Obeng</td>
<td>0246-140023</td>
<td>Ashanti Region, Sekyere Afram plains, Bodomase Behind Roman Catholic Church</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Kweku</td>
<td>None</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Kwesi Amankwah</td>
<td>0249537270</td>
<td>E/R, New Juaben, Koforidua Effiduase</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Kwesi Anyesi</td>
<td>0241931491</td>
<td>Central Region, Apam</td>
<td>Coalpot</td>
<td></td>
</tr>
<tr>
<td>Lanchina Metals Work</td>
<td></td>
<td>UWR/ Wa West District/ Chogsia, Along In-Service Wall Wa</td>
<td>LPG Improved charcoal Coalpot</td>
<td></td>
</tr>
<tr>
<td>Lansini Abdu</td>
<td></td>
<td>UWR/ Wa West District/Chogsia</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Less is More Metals</td>
<td>Muniru Sumaila</td>
<td>UWR/ Wa Municipal/ Dzuiegu, Kabanye</td>
<td>Ethanol stove Improved charcoal stove Coalpot</td>
<td></td>
</tr>
<tr>
<td>Man and Man Enterprise</td>
<td>Michael Yaw Agyei0243473642</td>
<td>Ashanti Region, Kumasi</td>
<td>Improved charcoal stove (Ceramic) 28,000</td>
<td></td>
</tr>
<tr>
<td>Master Efo Coalpot Shop</td>
<td>0247529010</td>
<td>Ashanti Region, Suame zone 6.</td>
<td>Coalpots</td>
<td></td>
</tr>
<tr>
<td>Master Issah Welding</td>
<td>0246676457</td>
<td>Gumbinini, Tamale</td>
<td>Firewood (metal)</td>
<td>850</td>
</tr>
<tr>
<td>Shop</td>
<td>Contact Details</td>
<td>Location</td>
<td>Services Offered</td>
<td>On-demand</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Mawusi Amar</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Volta Region, Kpando Main Station</td>
<td>Stove Manufacturer</td>
<td>270</td>
</tr>
<tr>
<td>Michael Duway</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Ashanti Region, Kumasi, Suame Zone 6</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>More and More metal works</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Ashanti Region, Obuasi, Kunka Newtown</td>
<td>Coalpot Firewood</td>
<td>2880</td>
</tr>
<tr>
<td>Mpaebotsefo Ltd</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Central Region, Foso</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Mr. Kwame Boah</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Ashanti region, Suame, People Lover</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Mr. Kwame Boah</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Ashanti Region, Suame</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Nayare Enterprise</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Upper East</td>
<td>LPG stove</td>
<td>624</td>
</tr>
<tr>
<td>New Era Enterprise</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>UER/Bolgatanga</td>
<td>LPG stove Traditional charcoal</td>
<td>1200</td>
</tr>
<tr>
<td>Nicholas Oray Dadzie</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Central Region, Mankesim</td>
<td>Coalpot</td>
<td>600</td>
</tr>
<tr>
<td>Northern Reg. Association Of</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Northern Region, Near Central Mosque, Tamale</td>
<td>LPG Stoves Improved Charcoal Improved Firewood Coalpot</td>
<td>11,400</td>
</tr>
<tr>
<td>Blacksmith</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Central Region, Mankesim</td>
<td>Coalpot</td>
<td></td>
</tr>
<tr>
<td>Nuhu Co. Ltd.</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>UWR/Wa Municipal</td>
<td>Improved Charcoal Firewood stoves Coalpot</td>
<td>490</td>
</tr>
<tr>
<td>Nuurideen Isshaku</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>UWR/Wa West District/Chogsia</td>
<td>Firewood stoves Saw dust stove</td>
<td></td>
</tr>
<tr>
<td>Nuhu Yahaya</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Upper East, Wa</td>
<td>Firewood stove</td>
<td>624</td>
</tr>
<tr>
<td>Ojugu Manufacturing</td>
<td>Lat: 9.42167 – Log: 0.84722</td>
<td>Brong Ahafo</td>
<td>Coalpot</td>
<td>2400</td>
</tr>
<tr>
<td>Company</td>
<td>Phone Number</td>
<td>Location</td>
<td>Role</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------------</td>
<td>-----------------------------------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td>0545487779</td>
<td>Sunyani Magazine, First Gate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peter Agordzetor</td>
<td>0277121678</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Progress Enterprise</td>
<td>Fuseine Keita, 0543781939</td>
<td>C/R, Tarkwanaboso</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Quasco Metal Works (Michael Kugblenu)</td>
<td>0243145956</td>
<td>Volta Region, Opposite Kpando District Assembly Office by the Old RC Cemetery</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Raymond</td>
<td>0207137719</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Richard Ekem</td>
<td>0244795459</td>
<td>Central Region</td>
<td>Stove Manufacturer Raw Materials Supplier</td>
<td></td>
</tr>
<tr>
<td>Samuel</td>
<td>None</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Samuel Akpo</td>
<td>0207657817</td>
<td>Ashanti Region, Kumasi</td>
<td>Coalpot</td>
<td></td>
</tr>
<tr>
<td>Samuel Opoku</td>
<td>0233-437123</td>
<td>Ashanti Region, Obuasi</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Senyo</td>
<td>0204196409</td>
<td>Volta Region, Kpando</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Stella Adebe</td>
<td>0245590255</td>
<td>Volta Region</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Sualah Aluminium Works</td>
<td>Suallah Yussif, 024 396562</td>
<td>Upper East</td>
<td>LPG Stove</td>
<td>4,100</td>
</tr>
<tr>
<td>Sualah Aluminium Works</td>
<td>Suallah Yussif, 024 396562</td>
<td>Upper East</td>
<td>LPG Stove</td>
<td>4,100</td>
</tr>
<tr>
<td>Sualah Yussif</td>
<td>0244795459</td>
<td>Central Region</td>
<td>Stove Manufacturer Raw Materials Supplier</td>
<td></td>
</tr>
<tr>
<td>Tam Welding</td>
<td>0244875986</td>
<td>Volta region, Ho, Bankoe</td>
<td>LPG stove</td>
<td></td>
</tr>
<tr>
<td>Toyola</td>
<td>Suraj Wahab 0243115898</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Toyola</td>
<td>Suraj Wahab 0243115898</td>
<td>Accra</td>
<td>Stove Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Vakiss Metal Works</td>
<td>Stephen Akolatse 0243-852468</td>
<td>Volta, Ho, Opposite SIC</td>
<td>LPG STOVE</td>
<td>480</td>
</tr>
<tr>
<td>S. No</td>
<td>Name</td>
<td>Contact</td>
<td>Location</td>
<td>Type of Activity in Cookstove sector</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>Industrial Research (CSIR)</td>
<td>Dr. Gabriel Laryea, 0243222370/0302500195</td>
<td>Accra, Otinshie (East Legon Near American House)</td>
<td>Testing Of Stove</td>
</tr>
<tr>
<td>2.</td>
<td>Agya Boat’s Metal Works</td>
<td>0275190588</td>
<td>Ashanti Region, Kumasi</td>
<td>Trainer</td>
</tr>
<tr>
<td>3.</td>
<td>Capecoast Technical Institute</td>
<td>Alfred Davis, Head Of Department, 0332132203</td>
<td>Central Region, Cape Coast</td>
<td>Educational Institution-Government</td>
</tr>
<tr>
<td>4.</td>
<td>Kumasi Institute Of Technology, Energy &amp;Environment (KITE)</td>
<td>Stephany Lawson, 0302-256800/01</td>
<td>Accra, Dzorwulu</td>
<td>Research And Advocacy</td>
</tr>
<tr>
<td>5.</td>
<td>International Network For</td>
<td>Michael Kwaku, 03220-</td>
<td>Ashanti Region, Fumesua,</td>
<td>Researcher,</td>
</tr>
<tr>
<td>No.</td>
<td>Organization</td>
<td>Contact Information</td>
<td>Location</td>
<td>Role</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>6.</td>
<td>Technology Consultancy Centre (KNUST)</td>
<td>Michael Commeh, 0322060296/97</td>
<td>Ashanti Region, Kumasi</td>
<td>Researcher, Capacity Builder, Trainer</td>
</tr>
<tr>
<td>7.</td>
<td>Centre For Energy, Environment And Sustainable Development</td>
<td>Julius Ahiekpor, 0244529589 <a href="mailto:juliushiekpor@yahoo.go.uk">juliushiekpor@yahoo.go.uk</a> <a href="mailto:info@ceesdghana.org">info@ceesdghana.org</a></td>
<td>Ashanti Region, Kumasi, Maxima</td>
<td>Researcher, Capacity Builder, Trainer</td>
</tr>
<tr>
<td>8.</td>
<td>HO Polytechnic</td>
<td>Louis Atsu</td>
<td>Volta Region, Ho</td>
<td>Researcher, Capacity Builder, Trainer</td>
</tr>
<tr>
<td>9.</td>
<td>University Of Energy And Natural Resources</td>
<td>Mawufemo Modjinou, 035223461</td>
<td>Brong Ahafo</td>
<td>Researcher, Trainer</td>
</tr>
<tr>
<td>10.</td>
<td>Tamale Polytechnic</td>
<td>Dr. Clifford Braimah, 0205975820/0244210612</td>
<td>NR/Tamale</td>
<td>Researcher, Trainer,</td>
</tr>
<tr>
<td>11.</td>
<td>Kumasi Polytechnic</td>
<td>Edward Antwi, 0268250357</td>
<td>KUMASI</td>
<td></td>
</tr>
</tbody>
</table>

**Table 7 List of Financiers in the value chain with their locations and contacts**

<table>
<thead>
<tr>
<th>FINANCIAL INSTITUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Imperial Women’s Trust (Microfinance)</td>
</tr>
<tr>
<td>2. Shell Foundation</td>
</tr>
<tr>
<td>3. Dera Foundation</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
</tr>
<tr>
<td>11.</td>
</tr>
<tr>
<td>12.</td>
</tr>
<tr>
<td>13.</td>
</tr>
<tr>
<td>14.</td>
</tr>
<tr>
<td>15.</td>
</tr>
<tr>
<td>16.</td>
</tr>
<tr>
<td>17.</td>
</tr>
<tr>
<td>18.</td>
</tr>
</tbody>
</table>
### Table 8 List of fuel retailers and distributors in the value chain with their locations, contacts

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of Organisation/Individual</th>
<th>Contact</th>
<th>Location</th>
<th>Type of Activity in Cookstove sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Achimota Old Station (Union of Charcoal Distributors)</td>
<td>Chairman 0208190649 0246456005</td>
<td>Accra</td>
<td>Fuel Distributor</td>
</tr>
<tr>
<td>2.</td>
<td>GAG Gas</td>
<td>Osei Boakye Yiadom, 0243103393</td>
<td>Ashanti Region, Kumasi</td>
<td>Fuel Distributor</td>
</tr>
<tr>
<td>3.</td>
<td>Diana</td>
<td>0245935664</td>
<td>Central Region, Asikuma</td>
<td>Fuel Distributor</td>
</tr>
<tr>
<td>4.</td>
<td>Gladys Koho</td>
<td></td>
<td>Central Region, Asikuma</td>
<td>Fuel Distributor</td>
</tr>
<tr>
<td>5.</td>
<td>Selestina Bawa</td>
<td>0545611799</td>
<td>Ashanti Region, Asokwa</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>6.</td>
<td>Afua Kyerewah</td>
<td>0245773394</td>
<td>Ashanti Region, Asokwa, Behind MOFA</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>7.</td>
<td>Fati Alhasan</td>
<td>0547274793</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>8.</td>
<td>Charcoal Queen Mother</td>
<td>0547148976</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>9.</td>
<td>Yaa Tanya</td>
<td>0247518672</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>10.</td>
<td>Fulera Issifu</td>
<td>0544123648</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>11.</td>
<td>Grace Addo</td>
<td>0249098622</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>12.</td>
<td>Alima Monkaye</td>
<td>0541802183</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>13.</td>
<td>Elizabeth Konadu</td>
<td>0547148041</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>14.</td>
<td>Salamatu Issifu</td>
<td>None</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>15.</td>
<td>Hannah Addai</td>
<td>0242208092</td>
<td>Ashanti Region, Ejura/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>16.</td>
<td>Theresa Nkansah</td>
<td>0242327644</td>
<td>Ashanti Region, Kumasi, Pankrono</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Phone Number</td>
<td>Address</td>
<td>Category</td>
</tr>
<tr>
<td>---</td>
<td>----------------------</td>
<td>----------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>17</td>
<td>Millicent Asante</td>
<td>0544931989</td>
<td>Ashanti Region, Mampong/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>18</td>
<td>Felicia Yeboah</td>
<td>0241965683</td>
<td>Ashanti Region, Mampong/Ashanti</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>19</td>
<td>Adwoa Tima</td>
<td>0243773524</td>
<td>Ashanti Region, Sekyere East/Kumawu, Behind Kumawu Market</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>20</td>
<td>Comfort Agyei</td>
<td>0546386559</td>
<td>Ashanti Region, Sekyereafram Plains/Bodomase, Opposite Kumawuman Rural Bank</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>21</td>
<td>Elizabeth Adomako</td>
<td>0247-456379</td>
<td>Ashanti Region, Sekyere-East, Kumawu, Behind Liberation Church</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>22</td>
<td>Emmanuel Asante</td>
<td>0547123964</td>
<td>Ashanti Region, Woraso, Opposite Roman Catholic Church</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>23</td>
<td>Charity Pokuaa</td>
<td>0242328562</td>
<td>Ashanti Region, Yonso/Mampong Municipal</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>24</td>
<td>Rose Blago</td>
<td>0546386559</td>
<td>Ashanti, Opposite Kumawu Rural Market</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>25</td>
<td>Abena Dufie</td>
<td>NONE</td>
<td>Brong Ahafo, Nkoranza</td>
<td>Fuel Distributors</td>
</tr>
<tr>
<td>26</td>
<td>Efuaowuayem</td>
<td>0544851534</td>
<td>Central Region</td>
<td>Fuel Retailer</td>
</tr>
<tr>
<td>27</td>
<td>Charcoal Sellers Association</td>
<td>Ajuaalhassan</td>
<td>UER /Bolgatanga, Bolga Market</td>
<td>Fuel Retailer</td>
</tr>
</tbody>
</table>
# Table 9 List of Fuel producers in the value chain with their locations, contacts

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of Organisation/Individual</th>
<th>Contact</th>
<th>Location</th>
<th>Type of Activity in Cookstove sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emmanuel Asante</td>
<td>0547123964</td>
<td>ASHANTI REGION, BODOMASE</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>2</td>
<td>Katapilar Dankara</td>
<td>0209742890/0241426744</td>
<td>Ashanti Region, Bodomase</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>3</td>
<td>Naade-Binanimda Joshua</td>
<td>0241426744/0209742890</td>
<td>Ashanti Region, Bodomase</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>4</td>
<td>Kwaku Laari</td>
<td>0248408023</td>
<td>Ashanti Region, Bodomase</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>5</td>
<td>Alsanakarim</td>
<td>0261672127</td>
<td>Ashanti Region, Kaase-Angola</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>6</td>
<td>Osei Kwadwo</td>
<td>0247-931275</td>
<td>Ashanti Region, Yonso</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>7</td>
<td>Boateng Samuel</td>
<td>0242-3228562</td>
<td>Ashanti Region, Yonso</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>8</td>
<td>Seidu Salifu</td>
<td>0247300492</td>
<td>Ashanti Region, Yonso</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>9</td>
<td>Sulemana Sampana</td>
<td>0542162572</td>
<td>Ashanti Region, Yonso</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>10</td>
<td>Adwoa Nuvi</td>
<td>BA, Abesem</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>11</td>
<td>Isatu</td>
<td>BA, Abesem</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>12</td>
<td>Ankomah Ernest</td>
<td>0546134478</td>
<td>BA, Kintampo South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>13</td>
<td>Branah Selamamu</td>
<td>0207983853</td>
<td>Brong Ahafo</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>14</td>
<td>Dramani Adamahilla</td>
<td>0209728754/0263602632</td>
<td>Brong Ahafo</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>15</td>
<td>Ernest Ankomah</td>
<td>0546134478</td>
<td>Brong Ahafo</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>16</td>
<td>Ibrahim Nuhu</td>
<td>0243176094</td>
<td>Brong Ahafo</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>17</td>
<td>Kwame Appiah</td>
<td>0244742201/0549970355</td>
<td>Brong Ahafo</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>18</td>
<td>Richard Takyi</td>
<td>0248651325</td>
<td>Brong Ahafo</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>19</td>
<td>Samson Adjei</td>
<td>0241845346/0243682488</td>
<td>Brong Ahafo</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>20</td>
<td>Mary Mensah</td>
<td>0541709307</td>
<td>Central Region</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>21</td>
<td>Raymond Ajaname</td>
<td>0574527049</td>
<td>Central Region</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>22</td>
<td>Kwame</td>
<td>0547973589</td>
<td>Central Region, Efutu</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>23</td>
<td>Foster</td>
<td>0245188135</td>
<td>Central Region, Elimina</td>
<td>Fuel Producer</td>
</tr>
</tbody>
</table>

1 Fuel producers in this context refers to charcoal burners. However, most charcoal burners also collect firewood for sale.
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Region</th>
<th>Contact Information</th>
<th>Fuel Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>Maame Wonye</td>
<td>Central Region, Elimina</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>25.</td>
<td>Bismark Sonny Azuma</td>
<td>Eastern Region, Afram Plains</td>
<td>0545709391</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>27.</td>
<td>Maame Krobo</td>
<td>Eastern Region, Afram Plains</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>28.</td>
<td>Simon Addae</td>
<td>Eastern Region, Afram Plains</td>
<td>0248269347</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>29.</td>
<td>Azaglo Gideon</td>
<td>Eastern Region, Afram Plains</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>30.</td>
<td>Enyonam Mamutor</td>
<td>Eastern Region, Afram Plains</td>
<td>0249537270</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>31.</td>
<td>Kporsu Benjamin</td>
<td>Eastern Region, Afram Plains</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>32.</td>
<td>Kweku Ntiamoah</td>
<td>Eastern Region, Afram Plains</td>
<td>0241572107</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>33.</td>
<td>Simon Abanam</td>
<td>Eastern Region, Afram Plains</td>
<td>0542941357</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>34.</td>
<td>Kwame Tortine</td>
<td>Eastern Region, Afram Plains</td>
<td>0542115262</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>35.</td>
<td>Stephen Azaglo</td>
<td>Eastern Region, Akenteng</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>36.</td>
<td>Abellon Clean Energy Gh. Ltd</td>
<td>Country Head 020222385/0542965206</td>
<td>abellonghana@abello nenergy.Com</td>
<td>Kumasi, Ahanti Region Fuel Producer (pellets)</td>
</tr>
<tr>
<td>37.</td>
<td>Niipaa Batubuga</td>
<td>Western Region, Thembe</td>
<td>Lat: 10.44167 – Log: 0.87972</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>38.</td>
<td>Sikena Abraham</td>
<td>Western Region, Thembe</td>
<td>Lat: 9.30888 – Log: 0.96056</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>40.</td>
<td>Rabi Lansa</td>
<td>NR/Central Gonja/ Changyilli</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>41.</td>
<td>Rackia Baba</td>
<td>NR/Central Gonja/ Changyilli</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>42.</td>
<td>Adisa Issahaku</td>
<td>NR/Central Gonja/ Changyilli</td>
<td>Lat: 9.31528 – Log: 0.95972</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>43.</td>
<td>Saflatu Sulemana</td>
<td>NR/Central Gonja/ Changyilli</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>44.</td>
<td>Memunatuissahaku</td>
<td>NR/Central Gonja/ Changyilli</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>45.</td>
<td>Zara (Hajia)</td>
<td>NR/Tamale / Tugu</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>46.</td>
<td>Fuseina Alhassan</td>
<td>NR/Tamale / Tugu</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>47.</td>
<td>Zuleiha</td>
<td>NR/Tamale / Tugu</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>48.</td>
<td>Sana</td>
<td>NR/Tamale / Tugu</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>49.</td>
<td>Ayishatu</td>
<td>NR/Tamale / Tugu</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>50.</td>
<td>Sanatu</td>
<td>NR/Tamale / Tugu</td>
<td></td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Contact Number</td>
<td>Location</td>
<td>Role</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------</td>
<td>----------------</td>
<td>----------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>51</td>
<td>Fati Nagantabri</td>
<td>0506219504</td>
<td>NR/West Maprusi/ Nabari</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>52</td>
<td>Abiba Adable</td>
<td>0541629873</td>
<td>NR/West Maprusi/ Nabari</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>53</td>
<td>Samari Joseph</td>
<td>0245228496</td>
<td>NR/West Maprusi/ Nabari</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>54</td>
<td>Hamna Sandow</td>
<td>0541629873</td>
<td>NR/West Maprusi/ Nabari Near CHPS (Hospital)</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>55</td>
<td>Saali Sandow</td>
<td>0541629873</td>
<td>NR/West Maprusi/ Nabari</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>56</td>
<td>Cecilia Sandow</td>
<td>0541629873</td>
<td>NR/West Maprusi/ Nabari</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>57</td>
<td>Nmunian Bigman</td>
<td></td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>58</td>
<td>Macham Kikiya Nakor</td>
<td></td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>59</td>
<td>Tiyangmache Mbagnen</td>
<td></td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>60</td>
<td>Bitabim Balaugnen</td>
<td>0542843253</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>61</td>
<td>Tason Bindakpe</td>
<td>0543007385</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>62</td>
<td>Tinatue Konja</td>
<td>0249356429</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>63</td>
<td>Ndammayi Nsanban</td>
<td>0548976682</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>64</td>
<td>Niagmela Binfortt</td>
<td>0543007385</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>65</td>
<td>Nyegmaboo Kpajah</td>
<td></td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>66</td>
<td>Balaugnin Adbowa</td>
<td>0542843253</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>67</td>
<td>Tiyanbidor Ajo</td>
<td>0245721530</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>68</td>
<td>Comfort Njochala</td>
<td>0249054543</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>69</td>
<td>Makante Bidaba Esther</td>
<td>0540944750</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>70</td>
<td>Kpasi Wapoh</td>
<td>0247740641</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>71</td>
<td>Paka Ndati</td>
<td></td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>72</td>
<td>Sabiya Binibdo</td>
<td></td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>73</td>
<td>Nyamafeh Limolla</td>
<td>0540513523</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>74</td>
<td>Gulondo Akosia</td>
<td>0542839000</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>75</td>
<td>Njomgmayan Ntimbi</td>
<td>0543016801</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>76</td>
<td>Abotsi Musah</td>
<td>0202937526</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>77</td>
<td>U-Yangnaba Abukari</td>
<td>0245740850</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>78</td>
<td>Nsikila Thomas</td>
<td>0204536262</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Phone Number</td>
<td>Region</td>
<td>Category</td>
</tr>
<tr>
<td>---</td>
<td>--------------------</td>
<td>-------------------</td>
<td>-----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>79.</td>
<td>Sando Enoch</td>
<td>0204526262</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>80.</td>
<td>Nena Nsikila</td>
<td>0204536262</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>81.</td>
<td>Soyeni Naja</td>
<td>0543016801</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>82.</td>
<td>Nyame Ntimbe</td>
<td>0243258104</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>83.</td>
<td>Beguar Donkor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84.</td>
<td>Nborikye Tapome</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85.</td>
<td>Kozolina Salomey</td>
<td>0548949388</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>86.</td>
<td>Kpetab Bikpa</td>
<td>0548988585</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>87.</td>
<td>Mawan Jagba</td>
<td>0540513523</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>88.</td>
<td>Buwue Janet</td>
<td>0245474422</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>89.</td>
<td>Denteh Yaw</td>
<td>0547564814</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>90.</td>
<td>Ntembi Gnananti</td>
<td>0243258104</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>91.</td>
<td>Jemory Mborlar</td>
<td>0243258104</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>92.</td>
<td>Benye Dora</td>
<td>0246482485</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>93.</td>
<td>Chiyabisi Tandam</td>
<td>0243258104</td>
<td>Volta Region, Nkwanta South</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>94.</td>
<td>Njembi Nignak</td>
<td>0202937526</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95.</td>
<td>Alhaji</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>96.</td>
<td>Osumanu</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>97.</td>
<td>Kodjo Nketsiah</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>98.</td>
<td>Sofo Ayiteh</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>99.</td>
<td>Akua Koko</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>100</td>
<td>Dickson Seth Kwabena Ofosu</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>101</td>
<td>Daniel</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>102</td>
<td>Ntiamoah</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>103</td>
<td>Edward</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>104</td>
<td>Boye</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>105</td>
<td>Kwamina</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>106</td>
<td>Dominic</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>107</td>
<td>Bruce</td>
<td></td>
<td>Western Region, Ayiem</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>108</td>
<td>Animguasi</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Contact Information</td>
<td>Region and Location</td>
<td>Position</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------</td>
<td>---------------------</td>
<td>----------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>109</td>
<td>Kwabena Awotwi</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>110</td>
<td>Atta Banyin</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>111</td>
<td>Kwasi Awul</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>112</td>
<td>Joseph Baidoo</td>
<td>0545903131</td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>113</td>
<td>Albert Arthur</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>114</td>
<td>Yaakwa</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>115</td>
<td>Kodjo Blackman</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>116</td>
<td>Kwesi Daade</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>117</td>
<td>Kwame Aboi</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>118</td>
<td>Kojo Enyiwa</td>
<td></td>
<td>Western Region, Bokoro</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>119</td>
<td>Gyan</td>
<td></td>
<td>Western Region, Miawoani</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>120</td>
<td>Kudjoe</td>
<td></td>
<td>Western Region, Miawoani</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>121</td>
<td>Kofi Alhassan</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>122</td>
<td>Adjoa Gruma</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>123</td>
<td>Ebo</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>124</td>
<td>Sansa</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>125</td>
<td>Adjoa Broma</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>126</td>
<td>Alex Tawiah</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>127</td>
<td>Asana</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>128</td>
<td>Akua Akoh</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>129</td>
<td>Patrick Mensah</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>130</td>
<td>Adjoa Dagati</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>131</td>
<td>Kodjo</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>132</td>
<td>Adwoa Otwima</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>133</td>
<td>Yaa Kosua</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>134</td>
<td>Odoom Stephen</td>
<td></td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>135</td>
<td>Kwadwo Kofi</td>
<td>0544514415</td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>136</td>
<td>Richard Vifa</td>
<td>0547774638</td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>137</td>
<td>Oboade Bedjibe</td>
<td>0241592232</td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
<tr>
<td>138</td>
<td>Emmanuel Nano</td>
<td>0248988287</td>
<td>Western Region, Mpohor</td>
<td>Fuel Producer</td>
</tr>
</tbody>
</table>
Table 10 List of raw material suppliers in the value chain with their locations and contacts

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of Organisation/Individual</th>
<th>Contact</th>
<th>Location</th>
<th>Type of Activity in Cookstove sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rita Bayeti</td>
<td>0249560579</td>
<td>Ashanti Region, Asokwa, Behind MOFA</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>2.</td>
<td>Hannah Atia</td>
<td>0246418365</td>
<td>Ashanti Region, Bogobiri Stadium Junction-Obuasi</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>3.</td>
<td>Azumah Atia</td>
<td>0247301710</td>
<td>Ashanti Region, Suame Zone 5, Behind The Mosque</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>4.</td>
<td>Joel Nyaa</td>
<td>0204605960</td>
<td>Ashanti Region, Suame Zone 5, Behind The Mosque</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>5.</td>
<td>Kwabena Abodee</td>
<td>0248460863</td>
<td>Ashanti Region, Suame Zone 5, Behind The Mosque</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>6.</td>
<td>Alhassan Nuru</td>
<td>0246311542</td>
<td>Ashanti Region, Suame Zone 2, Alaje Mode Enterprise</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>7.</td>
<td>Ekem Arts Pottery Limited</td>
<td>Ekem, 0244795459</td>
<td>Central Region, Winneba</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>8.</td>
<td>Akos</td>
<td></td>
<td>Eastern Region, Koforidua</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>9.</td>
<td>Comfort Boadi</td>
<td></td>
<td>Eastern Region, Koforidua</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>10.</td>
<td>Owusu Boateng</td>
<td>0574957157</td>
<td>Eastern Region, Koforidua</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>11.</td>
<td>Yaw Mintah</td>
<td>0249075302</td>
<td>Eastern Region, New Juaben</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>12.</td>
<td>Kofi Mantey</td>
<td></td>
<td>Eastern Region, New Juaben</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>S. No</td>
<td>Name of Organisation/Individual</td>
<td>Contact</td>
<td>Location</td>
<td>Type of Activity in Cookstove sector</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------</td>
<td>---------</td>
<td>----------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>13.</td>
<td>Salomey Gbemu</td>
<td></td>
<td>Eastern Region, Suhum</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>14.</td>
<td>Abena</td>
<td></td>
<td>Eastern Region, Suhum</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>15.</td>
<td>Amos Kofi</td>
<td></td>
<td>Eastern Region, Suhum</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>16.</td>
<td>Wisdom Noamesi</td>
<td>0264669766</td>
<td>Eastern Region, Suhum</td>
<td>Raw Material Supplier</td>
</tr>
<tr>
<td>17.</td>
<td>Nana Owusu Ansah and Sons Ltd.</td>
<td>Theophilus Larweh Aidoo, 0322021725 <a href="mailto:noaslx@yahoo.com">noaslx@yahoo.com</a></td>
<td>Ashanti Region, Kumasi, Macro</td>
<td>Raw Materials Supplier</td>
</tr>
</tbody>
</table>

Table 11 List of distributors and retailers of stoves in the value chain with their locations and contacts
<table>
<thead>
<tr>
<th></th>
<th>Company Name</th>
<th>Contact Person</th>
<th>Contact Information</th>
<th>Location</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>Melcom Group Of Companies</td>
<td>Donkor Fredrick Rockson</td>
<td>Ashanti Region, Kumasi, Adum</td>
<td>Stove Distributor/Retailer</td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Gimiya Trading Ent</td>
<td>Stephen Kwarteng</td>
<td>B/A Techiman</td>
<td>Stove Distributor/Retailer</td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Augustine Yeboah</td>
<td>0208410413</td>
<td>B/A, Berekum</td>
<td>Stove Distributor/Retailer</td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>Nyame Adom Ent</td>
<td>Samuel Kyere</td>
<td>B/A, Berekum</td>
<td>Stove Distributor/Retailer</td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>Antwi Commercial</td>
<td>Akwasi Boadi</td>
<td>B/A, Sunyani Near Ark FM</td>
<td>Stove Distributor/Retailer</td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>Associated Consortium</td>
<td>Eghan Mensah</td>
<td>C/R, Cape Coast</td>
<td>Stove Distributor/Retailer</td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>Rashied</td>
<td>0244745192</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>Kofi</td>
<td>None</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>Faizam Mohammed</td>
<td>None</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>Happy Store</td>
<td>0266707442</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>Nancy Kuntoh</td>
<td>0248184932</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>35.</td>
<td>George Ofosu</td>
<td>027474100</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>Grace Mensah</td>
<td>0207737951</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Phone Number</td>
<td>Location</td>
<td>Category</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>----------------------</td>
<td>---------------------</td>
<td>-------------------------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Nkrumah</td>
<td>0246150033</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Mensah Bonus</td>
<td>0249416692</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Antie Bridget</td>
<td></td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Anthony</td>
<td>None</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Spintex-Opposite Cylinders</td>
<td>None</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Kwabena</td>
<td>None</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Florence</td>
<td>None</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Green Garden House Enterprise</td>
<td>None</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Nyarko-B Enterprise</td>
<td>0243063588</td>
<td>Accra</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Faustina Asanti</td>
<td>0208095008</td>
<td>Brong Ahafo, Sunyani</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Rose Danso</td>
<td>0245944147</td>
<td>Brong Ahafo, Sunyani</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Prince Addai</td>
<td>0246535103</td>
<td>Brong Ahafo, Sunyani</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Bernice Yeboah</td>
<td>0205222466</td>
<td>Brong Ahafo, Sunyani</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Dangbor David</td>
<td>0242237758</td>
<td>Brong Ahafo, Techiman</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Rose Enterprise</td>
<td>Terchi Rose, 0206504625</td>
<td>Brong Ahafo, Wenchi</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Elder Anane</td>
<td>0273035587</td>
<td>Brong Ahafo, Sunyani Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Big Joe Enterprise,</td>
<td>Joseph Kyeremeh,</td>
<td>Brong Ahafo, Techiman</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0244070379</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Yesu Ne Adwumawura Ent</td>
<td>0245809986</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Florence A. Badu</td>
<td>0244091320</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Linfah Enterprise</td>
<td>0244774709</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Samcharyent</td>
<td>None</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Cad Gas</td>
<td>0243184794</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>It Is Written</td>
<td>0279456552</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>The Best Electrical</td>
<td>0202212264</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>Belgium Hardware</td>
<td>0208200049</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>Grace Enterprise</td>
<td>0275058817</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>Juliana Serwah</td>
<td>0247980195</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>Next Gate Gas</td>
<td>`0244165416</td>
<td>Brong Ahafo</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>Esi Ahema</td>
<td></td>
<td>C/R, Mankessim</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Business Name</td>
<td>Contact Person</td>
<td>Contact Number</td>
<td>Region</td>
<td>Location</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>-------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>66.</td>
<td>Diana</td>
<td></td>
<td>0245935654</td>
<td>Central Region</td>
<td></td>
</tr>
<tr>
<td>67.</td>
<td>Omari Trading Ent</td>
<td>Grace Bentil</td>
<td>0249164684/0205720653</td>
<td>Central Region</td>
<td></td>
</tr>
<tr>
<td>68.</td>
<td>Maame Esi</td>
<td></td>
<td>0206674015</td>
<td>Central Region, Abura Dunkwa</td>
<td></td>
</tr>
<tr>
<td>69.</td>
<td>Ato</td>
<td></td>
<td>0275205604</td>
<td>Central Region, Assin-foso</td>
<td></td>
</tr>
<tr>
<td>70.</td>
<td>Rukiya</td>
<td></td>
<td>0208695337</td>
<td>Central Region, Cape Coast</td>
<td></td>
</tr>
<tr>
<td>71.</td>
<td>Victoria Quansah</td>
<td></td>
<td>0249050279</td>
<td>Central Region, Cape Coast</td>
<td></td>
</tr>
<tr>
<td>72.</td>
<td>Sebastian</td>
<td></td>
<td>0244629866</td>
<td>Central Region, Cape Coast</td>
<td></td>
</tr>
<tr>
<td>73.</td>
<td>Erasmus</td>
<td></td>
<td>0244580868</td>
<td>Central Region, Damang</td>
<td></td>
</tr>
<tr>
<td>74.</td>
<td>Master Ekow</td>
<td></td>
<td>0233280431</td>
<td>Central Region, Elimina</td>
<td></td>
</tr>
<tr>
<td>75.</td>
<td>Esther Anhwiwaa</td>
<td></td>
<td>0244032521</td>
<td>Central Region, Foso</td>
<td></td>
</tr>
<tr>
<td>76.</td>
<td>Veronica Dadebo</td>
<td></td>
<td>0546770117</td>
<td>Central Region, Kasoa</td>
<td></td>
</tr>
<tr>
<td>77.</td>
<td>Nana Yaw</td>
<td></td>
<td>0244596922</td>
<td>Central Region, Kasoa</td>
<td></td>
</tr>
<tr>
<td>78.</td>
<td>Regina Fumador</td>
<td></td>
<td>0278319106</td>
<td>Central Region, Kasoa</td>
<td></td>
</tr>
<tr>
<td>79.</td>
<td>I.W. Enterprise</td>
<td>Rebecca Buaku,</td>
<td>02445750124</td>
<td>Central Region, Swedru</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80.</td>
<td>Paulina Denkyi</td>
<td></td>
<td>0209015172</td>
<td>Central Region, Swedru</td>
<td></td>
</tr>
<tr>
<td>81.</td>
<td>Awuradekeae Me Ent</td>
<td>Sandra Yeboah,</td>
<td>0249980316</td>
<td>Central Region, Swedru</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82.</td>
<td>Adwoa 10-10</td>
<td></td>
<td>0541935367</td>
<td>Central Region, Twifo Heman</td>
<td></td>
</tr>
<tr>
<td>83.</td>
<td>Maxi B Enterprise</td>
<td>Mensa Lassy Emmanuel,</td>
<td>0208125346</td>
<td>E/R, New Juaben / Koforidua</td>
<td></td>
</tr>
<tr>
<td>84.</td>
<td>Might Light Ltd</td>
<td></td>
<td>0243610511</td>
<td>E/R, Nima, Koforidua</td>
<td></td>
</tr>
<tr>
<td>85.</td>
<td>Nyame Tease Enterprise</td>
<td></td>
<td>0244735720</td>
<td>Eastern</td>
<td></td>
</tr>
<tr>
<td>86.</td>
<td>Hwenea Awurade Aye</td>
<td></td>
<td>0509184742</td>
<td>Eastern</td>
<td></td>
</tr>
<tr>
<td>87.</td>
<td>Sister Corner</td>
<td></td>
<td>None</td>
<td>Eastern</td>
<td></td>
</tr>
<tr>
<td>88.</td>
<td>Madam Esi</td>
<td></td>
<td></td>
<td>G/A, Accra</td>
<td></td>
</tr>
<tr>
<td>89.</td>
<td>Omensa Ventures</td>
<td></td>
<td></td>
<td>G/A, Agbobloshi</td>
<td></td>
</tr>
<tr>
<td>90.</td>
<td>Kwaku Gyasi</td>
<td></td>
<td>0570571775</td>
<td>G/A, Dansoman</td>
<td></td>
</tr>
<tr>
<td>91.</td>
<td>Albert</td>
<td></td>
<td></td>
<td>G/A, Nungua Barrier</td>
<td></td>
</tr>
<tr>
<td>92.</td>
<td>Cynthia</td>
<td></td>
<td>0240186203</td>
<td>G/A, Nungua Market</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Phone</td>
<td>Address</td>
<td>Category</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------</td>
<td>-----------------</td>
<td>----------------------------------------------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>Mmasanatu</td>
<td>0204034369</td>
<td>N.R, Aboabu Market, Tamale Lat: 9.403883 – Log: 0.84278</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Raikia Sayati</td>
<td>0570952179</td>
<td>N/R, Tama, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>Raikia</td>
<td>0264380192</td>
<td>N/R, Tama, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>Kusumi Sani</td>
<td>0262645125</td>
<td>N/R, Tama, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>Meri Sasana</td>
<td>0540445769</td>
<td>N/R, Tama, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>Salamatu Issifu</td>
<td>0240994083</td>
<td>N/R, Tama, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Suraya Kadiri</td>
<td>0260635205</td>
<td>N/R, Tama, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>Lawal Andaratu</td>
<td></td>
<td>N/R, Tama, Tamale, Aboabo Market - Stove Lane</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Salamatu Issahaku</td>
<td>0263362419</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Sanatu Ibrahim</td>
<td>0540475198</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>Sikina Lukman</td>
<td>0541623191</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Wasila Yahaya</td>
<td>0268418142</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Baraka Salmudween</td>
<td>0241553610</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>Amshawa Zakari</td>
<td>0506230576</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>Mari Minu</td>
<td>0243914689</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>Bentu Abdallah</td>
<td>0248566575</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>Fatahya Moro</td>
<td></td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>Wudada Yakubu</td>
<td>0269043479</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>Meri Majeed</td>
<td>0540475198</td>
<td>N/R, Tamale</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>Zania Safianu</td>
<td>0245940263</td>
<td>N/R, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>Mujana Yakubu</td>
<td>0262909217</td>
<td>N/R, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>Azaratu Sayuti</td>
<td>0545195353</td>
<td>N/R, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>115</td>
<td></td>
<td>0245952702</td>
<td>N/R, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>Nafisa Ibrahim</td>
<td>0543384414</td>
<td>N/R, Tamale, Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>Sumaya Mussah</td>
<td>0205460426</td>
<td>N/R, Tamale, Aboabo Market – Near Royal Motors</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Contact Number</td>
<td>Address and Location</td>
<td>Type of Business</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>---------------------</td>
<td>------------------</td>
<td>-----------------------------------------------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>118</td>
<td>Rabi Sayuti</td>
<td>0264380192</td>
<td>N/R, Tamale, Aboabo Market – Stove Lane</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>119</td>
<td>Ikima Iddrisu</td>
<td>0248961866</td>
<td>Northern</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>Hamza Abida</td>
<td>0202728005</td>
<td>Northern Region, Aboabu-Uganda Station, Tamale Lat: 9.403889 – Log: 0.84528</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>Hajia Kusumi</td>
<td>0244720088</td>
<td>NR/Tamale/ Aboabo Market</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>122</td>
<td>Amisha Wagazah</td>
<td>0207581386</td>
<td>NR/Tamale/ Aboabu-Uganda Station Lat: 9.40389 – Log: 0.84333</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>Justice</td>
<td>0543188423</td>
<td>Opposite Pentecost Church Ashaiman, Right Before The Unibank Building</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>Sariata Adam</td>
<td>0244113251</td>
<td>U/W, Wa Municipal Government Residential Area</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>Ajua Enterprise</td>
<td>Ajua, 0248273187</td>
<td>UER</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>126</td>
<td>No Hurry In Life Enterprise</td>
<td>Atubgaazore 0201848324</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>127</td>
<td>Suallah Yussif</td>
<td>0240396562</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>Mary</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>Samuel Ababila</td>
<td>0208489744</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>Melcom Ghana Ltd.</td>
<td>Mustapha Adam,</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0244214741</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>131</td>
<td>Apukomah Enterprise</td>
<td>Apukomahadanduba,</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0200957690</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>132</td>
<td>Emarno Enterprise</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>133</td>
<td>Anita</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>134</td>
<td>Abodeem Enterprise</td>
<td>0549353431/02079004368</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>135</td>
<td>Ajarawahabu</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>136</td>
<td>Madam Charity Enterprise</td>
<td>0203142898</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>137</td>
<td>His Grace Enterprise</td>
<td>0248610759/0200643996</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>138</td>
<td>Ajua Alhasan</td>
<td>0248277187</td>
<td>UER /Bolgotanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Contact Person</td>
<td>Address/Location</td>
<td>Position</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------</td>
<td>-------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>139</td>
<td>Ahamed Ibrahim</td>
<td>0507193973</td>
<td>UER /Bolgatanga</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>140</td>
<td>Mauex Ventures</td>
<td>Akumpule Emmanuel, 0244606368</td>
<td>UER /Bolgatanga, P. O. Box 786</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>141</td>
<td>Mr. Ankrah</td>
<td>0208294467</td>
<td>UER /Bolgatanga, Near Metro Mass Station</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>142</td>
<td>Maxcom Enterprise</td>
<td>0243553238</td>
<td>UER /Bolgatanga, Santé Boys</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>143</td>
<td>Dayure Enterprise</td>
<td>Adayure Charity, 0203142898</td>
<td>Upper East</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>144</td>
<td>Castro Linda</td>
<td></td>
<td>UWR/ Gbankor Nadoli District</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>145</td>
<td>Ben Masah</td>
<td></td>
<td>UWR/ Nadoh District /Gbanko</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>146</td>
<td>Abdul Basiiru Mohammed</td>
<td>0209656134</td>
<td>UWR/ Wa Municipal</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>147</td>
<td>Alhassan Siltu</td>
<td></td>
<td>UWR/ Wa Municipal/</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>148</td>
<td>Sariata Adam</td>
<td>0244113351</td>
<td>UWR/ Wa Municipal/ Government Residential Area</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>149</td>
<td>Garbire Memuna</td>
<td></td>
<td>UWR/ Wa Municipal/Sakera</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>Yusif Hawawu</td>
<td>0247806920</td>
<td>UWR/ Wa West District/</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>151</td>
<td>Majid Fatuma</td>
<td></td>
<td>UWR/ Wa West District/Gorgu</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>152</td>
<td>Karim Mariam</td>
<td></td>
<td>UWR/ Wa West District/Gydaayire</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>153</td>
<td>Klent</td>
<td>0508407767</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>154</td>
<td>White Dove Ent</td>
<td>0546645671</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>155</td>
<td>Dazka Esther</td>
<td>0246146096</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>156</td>
<td>Nyatah Ivy</td>
<td>0249141496</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>157</td>
<td>Mrs Gloria Agyapong</td>
<td>0540775821</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>158</td>
<td>Kofi Oduma</td>
<td>0246161630</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>159</td>
<td>Yellow Man</td>
<td>0548988583</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>Juana Adziuda</td>
<td>0249493405</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>161</td>
<td>Amazing Grace Enterprise</td>
<td>0246188598</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>162</td>
<td>Nyamekye Victoria</td>
<td>None</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>163</td>
<td>James</td>
<td>0542368842</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>164</td>
<td>Yaayaw Co Ltd</td>
<td>None</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Contact Person</td>
<td>Phone Numbers</td>
<td>Location</td>
<td>Role</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------</td>
<td>---------------------------------</td>
<td>--------------------------------------</td>
<td>----------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>165</td>
<td>Shape Lives Foundation</td>
<td>Alexander Kedje</td>
<td>0244313929</td>
<td>Volta Region</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>166</td>
<td>Lovina Teiko</td>
<td></td>
<td>0242585877</td>
<td>Volta Region, Aflao</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>167</td>
<td>Margaret Oyelowo</td>
<td></td>
<td>0231059307</td>
<td>Volta Region, Aflao Main Market</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>168</td>
<td>House Of Cylinder</td>
<td>Maxwell Iwhua</td>
<td>0247749622/0540879639</td>
<td>Volta Region, Aflao Main Road</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>169</td>
<td>Abubakar Mahmudu</td>
<td></td>
<td>0240476095</td>
<td>Volta Region, Anloga Main Market</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>170</td>
<td>Enyonam Agbozo</td>
<td></td>
<td>0547744872</td>
<td>Volta Region, Anloga Main Market</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>171</td>
<td>Insha Allahu Ent.</td>
<td></td>
<td>0245263324/0267785079</td>
<td>Volta Region, Anloga Main Market</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>172</td>
<td>Janet Afanu</td>
<td></td>
<td>0249565726</td>
<td>Volta Region, Denu</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>173</td>
<td>Eba</td>
<td></td>
<td>0208183772</td>
<td>Volta Region, Hohoe Near The Main Market</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>174</td>
<td>Dzigbordi Agbosu</td>
<td></td>
<td>0243637602</td>
<td>Volta Region, Keta-Dzelukope</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>175</td>
<td>World Market</td>
<td></td>
<td>None</td>
<td>Western</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>176</td>
<td>Asadul Enterprise</td>
<td></td>
<td>0312027190</td>
<td>Western</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>177</td>
<td>Appliance World</td>
<td></td>
<td>None</td>
<td>Western</td>
<td>Stove Retailer</td>
</tr>
<tr>
<td>178</td>
<td>Lygeo Enterprise</td>
<td></td>
<td>02444998091</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>179</td>
<td>Joesams Company</td>
<td></td>
<td>0244790145</td>
<td>Stove Retailer</td>
<td></td>
</tr>
<tr>
<td>180</td>
<td>Nyame Akwan</td>
<td>Ernestina Sofia Kwarteng,</td>
<td>0242967991</td>
<td>Central Region, Twifo Praso</td>
<td>Stove Retailer</td>
</tr>
</tbody>
</table>
3. Consumer preference: Key issues in stove selection

Consumers are familiar with a broad range of cooking options for each fuel type. The woodstove segment is still largely dominated by 3-stone fires although some alternatives exist (tire-rim, clay stove). The charcoal cookstove market is dominated by traditional coal pots and the Kenyan Gyeco Stoves 'Gyapas'. While the Gyapa has convinced a broad consumer segment, many are still reluctant to using it because they have doubts about the robustness of the clay liner and the value of their investment. Safety issues and fuel shortages are driving some consumers away from the LPG category. Those who would still like to use LPG are particularly attracted to the 4 burner stove with oven, due to its versatility. LPG is often used to heat up food rather than for proper cooking and therefore competes with microwaves more than with other stoves.

Consumers identified several factors would influence their decision to purchase a new cookstove. These factors can either been seen as a driver, barrier or both (polarizing) as can be seen in figure 3.

![Figure 3: Consumers criteria for purchasing a new cookstove](image)

Robustness or durability is by far the most important purchase criteria for the majority of the target women. When selecting new cookstove,
consumers focus their attention on material quality first and foremost. Value propositions which combine a long lifespan with other benefits such as speed-of-use, design, portability, or baking/grilling options will be particularly attractive.

All else equal, the interest of consumers for a given stove increased significantly when actual fuel savings could be easily noticed during the cooking tests. Being able to personally experience or observe the fuel savings is key to activate this driver. What really drives interest is the actual increase in efficiency delivered by the stove. On the other hand, specific features which can be associated with efficiency improvements turned out to be only moderately attractive. Indeed, most respondents consider air regulation doors or power regulation knobs as convenient devices but few of them actually used them during the cooking process. Similarly, pot skirts were considered as a good reason to believe that a stove would save fuel, but didn’t drive a lot of interest and sometimes prevented cooks from using iron rods to prepare their banku.

A fastidious lighting process is the most significant purchase barrier mentioned by respondents. Safety issues, lack of stability, and the need to stand up while cooking can also put off some respondents.

Clay liners and heavy weight are factors that can be both positively and negatively assessed depending on the consumer’s experience. For instance, adjusting the weight of a stove to please consumers is challenging. Weighing the stove is used as a test to assess material quality: if a stove is too light, consumers will conclude that the materials used to produce it are of low quality. On the other hand, excessively heavy stoves will also be rejected by consumers who like their stove to be portable.
4. Proposed Advocacy Plan

4.1 Target market segment

The consumer segmentation developed in this study has identified two key segments that clean and efficient cooking technology promoters can target. These are:

1. HI-MI Urban Charcoal: High and middle income urban charcoal users are the households for whom the potential for improved cookstoves and fuel adoption is highest due to their purchasing power and the fact that they are facing high cooking fuel prices. They account for 17% of the market, roughly 1.04 million households.

Refining the segmentation by geographic area, Greater Accra, Western and Central regions were identified as the most promising areas for the promotion of clean cooking solutions among high and middle income urban charcoal users due to their population size and to the price of charcoal in these regions. Together, the three regions represent 46% of the HI-MI segment.

2. HI-MI Rural Wood: High and middle income rural wood users also represent a significant opportunity for marketers of clean cooking solutions. Although, the cost of fuel is less of an issue for them, their purchasing power enables them to invest in modern home appliances. In areas where wood is becoming harder to collect in particular, they might have an additional incentive to consider clean and efficient cookstoves. In addition, they may be sensitive to other incentives such as convenience, cleanliness or speed-of-use. This segment represents 29% of the market or 1.8 million households.

The Northern region along with Ashanti and Eastern regions offer the best perspective for clean firewood cookstove uptake because they host relatively large high and middle income rural populations and the density of biomass suggests that there is less wood available for collection in these regions than in other populated regions such as the Western and Central regions. This creates a higher incentive to adopt more efficient cooking technologies or alternative fuels. The three regions represent 43% of the segment.
### Table 12 Key Regions for HI-MI Urban Charcoal Users

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
<th>Share of segment</th>
<th>Fuel Prices</th>
<th>Market Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Accra</td>
<td>High</td>
<td>26.90 %</td>
<td>High</td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>Ashanti</td>
<td>High</td>
<td>23.90 %</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Eastern</td>
<td>Medium</td>
<td>10.30 %</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Western</td>
<td>Medium</td>
<td>9.60 %</td>
<td>High</td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>Central</td>
<td>Medium</td>
<td>9.50 %</td>
<td>High</td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>Brong Ahafo</td>
<td>Medium</td>
<td>8.30 %</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Volta</td>
<td>Low</td>
<td>5.90 %</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Northern</td>
<td>Low</td>
<td>3.10 %</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Upper East</td>
<td>Low</td>
<td>1.60 %</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Upper West</td>
<td>Low</td>
<td>1.10 %</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

### Table 13 Key Regions for HI-MI Rural Wood Users

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
<th>Share of segment</th>
<th>Biomass</th>
<th>Market Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Accra</td>
<td>Low</td>
<td>2.2 %</td>
<td>Scarce</td>
<td>Low</td>
</tr>
<tr>
<td>Ashanti</td>
<td>High</td>
<td>18.1 %</td>
<td>Mixed</td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>Eastern</td>
<td>High</td>
<td>15.4 %</td>
<td>Mixed</td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>Western</td>
<td>Medium</td>
<td>13.2 %</td>
<td>Dense</td>
<td>Low</td>
</tr>
<tr>
<td>Central</td>
<td>Medium</td>
<td>11.8 %</td>
<td>Dense</td>
<td>Low</td>
</tr>
<tr>
<td>Brong Ahafo</td>
<td>Medium</td>
<td>11.9 %</td>
<td>Mixed</td>
<td>Medium</td>
</tr>
<tr>
<td>Volta</td>
<td>Medium</td>
<td>12 %</td>
<td>Mixed</td>
<td>Medium</td>
</tr>
<tr>
<td>Northern</td>
<td>Medium</td>
<td>9.6 %</td>
<td>Scarce</td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>Upper East</td>
<td>Low</td>
<td>3.7 %</td>
<td>Scarce</td>
<td>Low</td>
</tr>
<tr>
<td>Upper West</td>
<td>Low</td>
<td>2.0 %</td>
<td>Scarce</td>
<td>Low</td>
</tr>
</tbody>
</table>

### 4.2 Communication strategy

In order to assess the relevance of various communication messages to consumers, short communication ideas were presented to the respondents during the consumer segmentation study. The messages tested revolve around a different benefit:

1. **Savings**: The ability to save fuel and money thanks to improved Cook stoves
2. **Modernity**: The pleasure of cooking with comfortable, high-quality equipment
3. **Health**: Enjoying a cleaner and healthier kitchen due to smoke reductions
It was observed that message which focused on “savings” and to some extent “Cleanliness” as a key benefit was by far the most relevant and the most appealing to a majority of respondents.

The following key messages are proposed for use to win target market over:
1. Clean and Prestigious -
2. Fast and Easy to use
3. Saves fuel and money

For all the proposed communication strategies, reassurance on weight, durability, stability and safety should be provided as background to the main message. Product aesthetics must also be suggested through well-selected visuals.

*It is important to note that the traditional coal pot is a valued element of the respondents’ environment and traditions. Although consumers are aware of their limitations, they like their coal pots and feel personally criticized when the coal pot is negatively depicted in communication work.*

### 4.3 Key Product Features

To make the needed impact in the target market, stove manufacturers should prioritize the following product improvement features:

1. **Invest in long-lasting materials**: This is by far the most important purchase criteria and creates willingness to pay for cookstoves. Quality materials convey both durability and prestige. The weight of the selected materials or at least of the final product, is crucial: cookstoves should be heavy enough to suggest quality and robustness, but still light enough to be easily transported during and after cooking. It is important to visualize aesthetics and solidity of materials on all communications/packs as this is a highly important purchase factor.

2. **Invest in insulation systems**: The study showed that clay was an attractive but polarizing insulation material. Alternatives which could convey the same benefits without arousing concerns about the robustness of the stove would have a good market potential.

3. **Promote “quick starter”, “easy regulation” and “2 burner” technologies**: The target women like their cooking to be fast and effortless. Technologies which speed the lighting process, can heat two pots at a time or allow them to adjust fire power instantly are highly valued.

4. **Offer features which can increase the versatility of a stove**: Respondents like to diversify their recipes. Examples: grill, charcoal oven...
5. **Develop portable/transferable technologies:** Stoves which are easy to move around the courtyard and even better to travel with, appeal to consumers. *Examples: handles, foldable parts, transportation bag...*

### 4.4 Proposed mechanism/ mediums to be used to carry message

Increasing the deployment of improved cookstoves will require behavioral, technical, and cultural approaches that will vary widely amongst communities, involving changes in public awareness, supply chains, consumer preferences, policy, and product design.

In both the mapping exercise and consumer survey, **Word-of-mouth** remains the most important channel to spread awareness and generate consumer confidence. About 90% of retailers and 80% of manufacturers indicated that their products are sold through recommendation of their customers to others. This is attested by consumers that they buy a new product mostly through referrals from friends and relatives based on the experience of the later.

Almost all participants during the consumer segmentation study, mentioned their friends and relatives as their main influence when it comes to making a purchase decision.

However, there is the opportunity to use **mass media**, particularly television (TV) to increase awareness, generate consumer confidence and build the improved cookstove brand through the Ghana Alliance for Clean Cookstoves.

For instance, **Gyapa advertising campaign** although dated back a long time ago is still remembered by many women. The women explained that the Gyapa adverts attracted their attention to the product and has had a significant impact on its adoption.

In order to raise awareness of the benefits of improved cookstoves relative to traditional coal (charcoal) pots and advocate for their adoption by households and institutions and also to break successfully into the market, there is the need to adopt sustained and existing marketing strategies applicable in Ghana. These strategies have proven to be successful in promoting other policies and products and these include:

1. Sustained and continuous radio and television advertisement highlighting the benefits of using clean cook stoves,
2. Outdoor campaign and demonstration through public announcement in vans and community forums. This could be done at commercial centres (traditional markets) where it is likely to have many people,
3. Display of posters and billboards at vantage positions and the use of car stickers,
4. Collection of feedback on performance of stoves from end-users.
5. Reward for consumers through raffles.
## 5.0 Monitoring and Evaluation Plan

<table>
<thead>
<tr>
<th>Activity</th>
<th>Indicators</th>
<th>Data collection method/source</th>
<th>Tools/Resources</th>
<th>Frequency</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output</strong></td>
<td><strong>Outcome</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1: To build the capacity of manufacturers of traditional coal (charcoal) pots to produce improved and efficient stoves</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide technical training for existing stove manufacturers</td>
<td>Training Documentaries Workshop and seminars</td>
<td>Number of clean cookstove producers Increased number of new stove models available on the market Improved quality and efficiency of stoves</td>
<td>Baseline studies GLSS data Census</td>
<td>Expertise Funding Training Manuals</td>
<td>Yearly</td>
</tr>
<tr>
<td>Train manufacturers on proper record keeping and financial management</td>
<td>Workshop and seminars segregated by region</td>
<td>Improved financial management and book keeping practice</td>
<td>Baseline studies</td>
<td>Expertise Support Funding</td>
<td>Yearly</td>
</tr>
<tr>
<td>Provide financial assistance to</td>
<td>Increased number</td>
<td>Baseline studies</td>
<td></td>
<td></td>
<td>Yearly</td>
</tr>
</tbody>
</table>
Objective 2: Increase the usage of improved cookstoves and fuels by households and institutions

<table>
<thead>
<tr>
<th>Increase access/availability of clean cookstoves/fuels in the market</th>
<th>Increased Number of households using clean stoves by stove type</th>
<th>Number of households using clean fuels</th>
<th>Reduced number of conventional coal pot in the market</th>
<th>GLSS data Baseline studies Census</th>
<th>Biennial</th>
<th>GhACCO Energy Commission Ministry of Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>trained manufacturers.</td>
<td>manufacturers reporting that they have accessed financed for business development</td>
<td>Increased amount of finance disbursed to stove producers by producer segment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 3: Ensure durability and efficiency of manufactured stoves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Promote clean cookstoves/fuels</strong></td>
<td>Advertisement</td>
<td>Increased Number of households using clean stoves by stove type</td>
<td>GLSS data</td>
<td>Mass media (Television, Radio, Posters, Billboards)</td>
<td>GhACCO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Documentary</td>
<td>Number of households using clean fuels</td>
<td>Interview with retailers</td>
<td></td>
<td>Energy commission</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community forums and demonstration</td>
<td>Number of new stove models on the market</td>
<td>Mass media (Television, Radio, Posters, Billboards)</td>
<td></td>
<td>Ministry of Energy</td>
<td></td>
</tr>
<tr>
<td>Collect feedback on the usability, durability and performance of stoves</td>
<td>Rate of sustained adoption of clean cooking stoves</td>
<td>Consumer Interviews</td>
<td></td>
<td>Ministry of Children and Gender Development</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Collect feedback on the usability, durability and performance of stoves | Rate of sustained adoption of clean cooking stoves | Consumer Interviews | Biennial | GhACCO |

<table>
<thead>
<tr>
<th>Objective 3: Ensure durability and efficiency of manufactured stoves</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conduct test on stoves</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Develop and enforce standards and labels of stoves</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Promote quality and efficient stoves by way of labeling</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| Promote quality and efficient stoves by way of labeling | Advertisement | Increased Percentage of customers able to interpret | Consumer segmentation studies | Mass media | GhACCO |
| | Documentary | | | | Energy Commission |
quality and standard labels on stoves

**Objective 4: Increase coordination and collaboration among stakeholders**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Activity</th>
<th>Collaborators</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formation of regional and National association</td>
<td>Workshop and Seminars</td>
<td>GHACCO</td>
<td></td>
</tr>
<tr>
<td>GHACCO liaises with financial and donor agencies for funds for stakeholders, special concessions and rates for members of the cookstove sector</td>
<td>Number of grant and financial aid to retailers, manufacturers and researchers in the cookstove sector</td>
<td>GHACCO</td>
<td>Yearly</td>
</tr>
<tr>
<td>Formation of functional GhACCO regional coordinating offices</td>
<td>Active Number of regional offices</td>
<td>GhACCO</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td>Number of meetings</td>
<td>Other sponsors</td>
<td></td>
</tr>
</tbody>
</table>

**Objective 5: Increase awareness about the benefits of using improved cookstoves**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Activity</th>
<th>Collaborators</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct campaign about the health implication of using traditional cook stoves</td>
<td>Percentage of consumers reporting awareness of health effects of cookstove smoke</td>
<td>GhACCO Energy Commission Ministry of Health</td>
<td>Yearly</td>
</tr>
<tr>
<td>Generate Community</td>
<td>Percentage of Baseline studies</td>
<td>GhACCO</td>
<td></td>
</tr>
<tr>
<td>awareness about the benefits of using clean cook stoves</td>
<td>forum Documentary Product demonstration</td>
<td>consumers reporting awareness of benefits of clean cooking stoves</td>
<td>Consumer segmentation study</td>
</tr>
</tbody>
</table>