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What motivates women to buy?

Research Brief:

Valuing, Understanding
and Targeting Women for
Improved Cookstove
Purchase

EAST ACHOLI, UGANDA

Author

The following is a short brief taken from a series of research studies compiled and written by Kim Beevers, Market Systems Advisor and GACC/WEF Program Director, Mercy Corps Uganda. The work stems from two years of research, program design and implementation, and evaluation done collaboratively with the improved cookstove sector and private partners in northern Uganda. She can be reached at kbeevers@ug.mercycorps.org

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Disclaimer

This study is made possible by the generous support of the Global Alliance for Clean Cookstoves Women's Empowerment Fund. The contents are the responsibility of the author and do not necessarily reflect those of the Alliance or Mercy Corps.

All research and documentation is available in full **HERE** at Mercy Corps' website.



Executive Summary

SINCE 2012, Mercy Corps has worked to improve availability and access to improved cookstoves technology across northern Uganda. We've provided technical advisory support coupled with targeted financial investment to private sector partners interested in growing the cookstove market in East Acholi. Our focus has always been on sustained sector growth that will evolve and expand to ever better meet the needs of the East Acholi population in our absence.

With the support of the Global Alliance for Clean Cookstoves Women's Empowerment Fund, Mercy Corps undertook an applied research project from March-January 2014, building on our earlier work and investment. The overall objective of the project was to identify scalable sales, marketing and financing strategies for increasing improved cookstove purchases among female consumers within the sub-region.

At the start of the research, women did not yet account for half of improved cookstove purchases in East Acholi. By and large, resellers could not articulate what motivated women to buy or what inhibited their ability to purchase improved cookstoves distinct from men. As a result, a product built for women wasn't getting to them.

To help to address this missed opportunity, Mercy Corps' led an applied research initiative that closely collaborated with improved cookstove suppliers, distributors and retailers on the following four pieces.

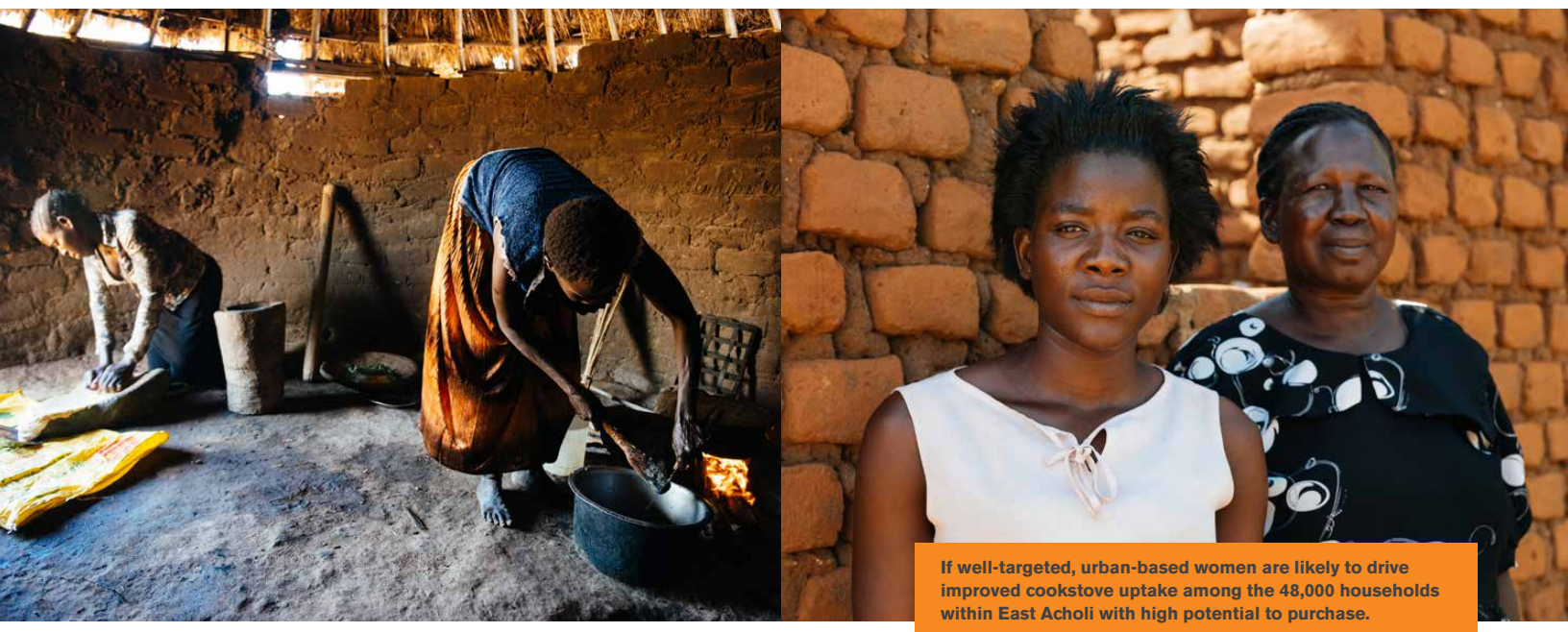
- 1 A business case for investing in female improved cookstove consumers.
- 2 Primary consumer research that identifies motivations, barriers and enabling factors that both contribute and inhibit female consumer improved cookstove purchase within East Acholi.
- 3 Sales, marketing and financing strategies designed to trigger and to enable targeted female consumer cookstove purchase, and
- 4 An evaluation of the effectiveness and scalability of best-fit strategies tested during an 11-week applied research period.

Findings for the above are outlined in brief in this document. **All research and documentation is available in full [HERE](#) at Mercy Corps' website.**

Valuing Female Improved Cookstove Consumers

As cookstove consumers and users, women are a critical component of the sector's effort to reach scale. In East Acholi, women are most often responsible for cooking fuel collection and purchase as well as domestic cooking responsibilities. Women account for half of the potential cookstove market globally (estimated at 2.7 billion according to GACC) and stand to benefit from improved cookstove technology most. If female consumers are left behind, overall improved cookstove sales are too.

A clear opportunity to target urban and peri-urban market segments within East Acholi exists. Market penetration for improved cookstoves among these groups was very low (4 percent) while fuel expenditures were high (\$84/month) when research began. Urban female cookstove consumers are especially likely to purchase improved cookstoves if targeted appropriately and may drive sales in the sub-region --- enabling uptake among the 48,000 households that were untapped at the start of programming.



If well-targeted, urban-based women are likely to drive improved cookstove uptake among the 48,000 households within East Acholi with high potential to purchase.

Understanding Female Improved Cookstove Consumers

In order to develop sales, marketing and financing strategies that target and empower East Acholi women to purchase improved cookstoves within the sub-region, Mercy Corps first led a consumer research initiative to establish a deeper understanding of the motivations, barriers, and purchasing behaviors of women in East Acholi.

Throughout July and August 2014, Mercy Corps led qualitative research, interviewing 117 consumers and retailers within East Acholi. Research enabled the team to define consumer groups within the sub-region and then to identify those groups with the greatest likelihood of improved cookstove adoption. Finally, it also led to the creation of strategies for increasing this adoption, including marketing messages, marketing channels, product placement, promotions, pricing, and financing mechanisms. This research is outlined within the section that follows.

East Acholi Female Consumer Groups

In East Acholi, women usually belong to multiple consumer groups. For improved cookstoves, a woman's specific access profile will best be defined by the interplay of the advantages and disadvantages associated with the various segments to which she belongs. In some cases, disadvantages compound to make access to improved cookstoves unlikely and difficult. In most cases, however, advantages and disadvantages tend to partially cancel each other out. Moreover, while behavioral barriers highlighted generally affect each consumer segment similarly, other barriers outlined impact different consumer segments in unique ways.

Female Consumers with the Greatest Potential to Purchase

Throughout the research, nearly all participants expressed interest and motivation to purchase the improved cookstove. When benefits were articulated and the opportunity to purchase presented, most interviewees – particularly women – wanted the improved cookstove.

However, for some consumers, purchase is easier and more probable than for others. And, because they're motivated, with resources and closer to urban areas, these consumers are also easier and less costly to reach for improved cookstove suppliers, distributors, resellers and sales agents.

Urban-based, female charcoal users with some independent source of income are the low-hanging consumer fruit. This consumer group has also been overlooked or poorly targeted in East Acholi to date. The following shared or overlapping descriptions of different consumers that fall within this headline group help to better characterize consumers within this segment.

Urban-based, female charcoal users with some independent source of income are a high-potential and, to date, overlooked and poorly-targeted consumer group in East Acholi.

Current Charcoal Users

Early improved cookstove adopters are likely women who are already using charcoal for cooking at least part of the time. This includes as many as 45,000-50,000 households within East Acholi. These women are already purchasing fuel and would experience immediate benefits through cost-savings in fuel purchases. There are two main categories of current charcoal users that each has its own profile.



Current inefficient metal stove users: Inefficient metal stove users are one of the most promising segments to target for improved cookstove sales. This consumer group must replace their metal stove annually and stands to benefit considerably from charcoal savings. According to a 2012 East Acholi market assessment conducted by Mercy Corps,¹ approximately 11 percent of East Acholi households or roughly 16,000 households fall within this consumer group.

Current locally-built mud and clay stove users: Locally-built mud or mud and brick stove users are a more difficult sell. However, this is a large consumer segment from which a significant number of people have already purchased improved stoves. According to a 2012 East Acholi market assessment conducted by Mercy Corps, approximately 19-20 percent of homes (roughly 29,000 families) utilize mud or clay stoves as their primary cooking method. Many of these stoves were built by NGOs free of charge, were self-built by the users, or were built by local craftsmen for very low cost.

Women with some independent income or access to financing

Female small business owners, salaried employees, and savings group members all have access to the cash necessary to purchase the improved

¹ David Nicholson and Kim Beevers, "Market Analysis for Fuel Efficient Cook Stoves in the Acholi Sub-region, Uganda," Mercy Corps, 2012. www.mercycorps.org/research-resources/market-analysis-fuel-efficient-cook-stoves-acholi-sub-region-Uganda.



Rural-based women that rely on firewood and are dependent on agriculture and/or on their husbands for income are among the least likely consumer groups to purchase improved cookstoves.

cookstoves, making easier for them to adopt the improved cookstove if they are properly motivated. If they are already using charcoal, the probability of adoption is higher, but firewood users that fall into these groups are also better positioned to buy than most other firewood users.

Female small business owners living in urban and peri-urban areas and smaller trading centers:

These women are a large and important market. Every town and most peri-urban communities have their own markets that are predominantly filled with female traders. In addition, there are significant numbers of female shopkeepers—though they may have less complete control over their income if their husband is involved in the business.

Salaried women working for NGOs, health centers, schools, and local government: Currently, this consumer group is one of the biggest buyers of the improved cookstove. Although all salaried women are good to target for their relatively higher purchasing power, salaried women working for these groups are especially good targets. They are mobile, educated, have reliable income, and a need to cook food quickly, efficiently and cleanly. They are also time-constrained.

Savings group members: Savings group members are drawn from virtually all consumer segments – the majority of residents within East Acholi belong to savings groups. Savings group members have ready access to a financing mechanism to assist with purchasing the stove.

Barriers and Motivations for Improved Cookstove Purchase among Consumer Groups

Though simplistic, the chart on the following page highlights those female consumer segments for which it will be easier to enable improved cookstove adoption as well as those for which it will be more challenging. For example, married women firewood users living in villages in households dependent on agriculture who are dependent on their husbands for income are among the least likely to buy improved cookstoves. This group has relatively high barriers to access across the board and very few offsetting motivating factors. On the other hand, female salaried or small business owners in urban areas or small towns who are heads of household or living separately from their husbands may be early adopters as they face few obstacles in terms of decision-making, have regular income, and confront high demands on their time – all factors that highly motivate a switch to improved cookstoves.

Summary of barriers and motivating factors for improved cookstove purchase by consumer group²

Primary living location size					Marital status			Income Type & Source					Cooking technology & fuel			
	Urban	Peri-urban	Small town	Rural	Renter	Female head of household	Married, living with Husband	Married, living apart from husband	Salaried	Regular, Small Business Income	Occasional /Irregular Income	Seasonal Agricultural	Dependent	Inefficient Metal Stove Users	Mud/ Clay Stove Users	Firewood Users
Barriers that inhibit improved cookstove purchase																
Access to information	X	X X	X	X X	X	X	X	X	X	X	X	X X	X X	X	X	X X
Limiting shopping		X X	X	X X		X	X			X	X X	X X	X X			
Cash constraints						X X					X	X X	X X			
Decision-making/ control of resources							X	X			X	X X	X X			
Lack of reference		X	X X	X X			X X			X	X	X X	X X		X	X X
Transportation		X	X X	X X		X		X		X	X	X X	X X			
Switching Costs/ Fuel															X	X X
Motivating factors that engender improved cookstove purchase																
Faster cooking time						++		+	++	++	+	+				
Reduced time feeding						++		+	++	++	+	+		+	+	++
Less wasted charcoal	+	+	+			++	+	++		+	+			++	+	
Stretch resources/money	+	+	+			++	+	++		+	+		++	+	+	
Portability					++				+	+	+				++	++
Cleanliness	+	+	+						+	+	+			+		+
Health																++
Durability/less repair time						+			+	+	+			++	++	
Market Segment Size	Med	Med	Med	Lg	Med	Med	Lg	Sm	Sm	Med	Lg	Lg	Med	Sm	Med	Lg
Segment Potential Score	Very High	High	Very High	Low	Moderate	High	High	Moderate	High	Very High	High	Very Low	Very Low	High	Moderate	Low

² Barriers that come into play for a particular segment are noted with an "x". If the barrier has a particularly strong impact on the segment relative to other segments, it is noted with a double "x". Motivating, or enabling factors are noted with "+" or a "+,+" to denote those that are likely to be a particularly strong motivator for a particular segment. Detailed descriptions of each of the segments can be found in the Annex 3. Links to each segment can be found in the table above.

Strategies for Growing Improved Cookstove Sales among Female Consumers in East Acholi

A number of barriers and biases inhibit improved cookstove uptake among consumers broadly, and the target female consumer groups discussed above specifically. These are listed below and discussed at length in the full paper.

Multiple strategies can and should be developed to address the barriers and biases confronting each consumer segment. Accordingly, in addition to the barriers and biases outlined below, the chart below also suggests how these barriers might be addressed or overcome, along with some specific tactics and practical examples for the East Acholi context.

BARRIERS LISTED	ADDRESSING BARRIERS	SUGGESTED TACTICS
1 Limited access to information about improved cookstoves and their benefits limits women's motivation to purchase them.	Many women are not aware of the improved cookstoves and do not have adequate information about their benefits.	Use multiple channels appropriate to the targeted segment to proactively disseminate messages about the value and benefits of the improved cookstove.
2 Improved cookstove sales points and placement do not reflect women's limited shopping radius and shopping preferences.	Women tend to shop close to home or work and rarely venture into shops without a specific purpose in mind.	Bring cookstoves to the places where women work and shop—primarily markets and the shops surrounding the markets in towns where there are already retailers.
3 Women have limited decision-making power and control over resources within the household, limiting their capacity to purchase an improved cookstove.	Most women have limited decision-making power and control over financial resources within shared households.	Provide talking points targeted at husbands and tailor financing arrangements to fit women's current scope of control over financial resources.
4 Nonexistent price references, when combined with women's limited capability and confidence to purchase larger goods, inhibits improved cookstove purchases.	No reference price undermines women's confidence to approach retailers and to purchase the improved cookstoves.	Include pricing information in advertising and promotions.
5 Limited access to cash may not inhibit women's improved cookstove purchase as much as first thought.	Women face cash-on-hand constraints.	Develop culturally appropriate financing mechanisms, such as savings schemes, installment payments or targeted savings group outreach.

	BARRIERS LISTED	ADDRESSING BARRIERS	SUGGESTED TACTICS
6	Improved cookstoves are heavy and bulky and thus difficult for women to transport.	Improved cookstoves are heavy, bulky, difficult and expensive for women to transport.	Offer delivery to a more convenient pick-up point.
7	<p>Though improved cookstoves offer large savings and other benefits over time, these can be intangible and challenging to plan for in the near term.</p> <p>Improved cookstoves offer large potential, future benefits and savings that are challenging for East Acholi consumers to fully value in the near term, limiting interest in purchase.</p> <p>Limited capacity to plan and to budget for medium-term goals may inhibit sales of improved cookstoves to consumer segments that do not have access to the cash required for purchase immediately.</p>	<p>Present bias leads women to prefer investments with short-term pay-outs.</p> <p>Women prefer tangible and immediate benefits over more distant and less tangible benefits.</p> <p>Women do not have the habit of planning for medium and long-term goals.</p>	<p>Develop promotions that generate a sense of scarcity or time-limited opportunity to motivate people to act sooner rather than later.</p> <p>Use financing strategies to get the tangible product into consumer hands sooner rather than later and employ social pressure mechanisms to strengthen commitment.</p> <p>Create mechanisms to encourage goal-setting and planning.</p>
8	Women believe that the prices of improved cookstoves and charcoal fuel are much more expensive when compared to their current stoves and fuel, regardless of quality and value differences.	<p>The lower prices of unimproved cookstoves led women to perceive that improved cookstoves are overly expensive.</p> <p>Current firewood users will see their out-of-pocket costs go up as they switch from firewood which they generally gather themselves to purchasing charcoal.</p>	<p>Widely disseminate realistic prices, addressing quality and value differences with cheaper cookstoves and comparing the cookstoves with an even more expensive technology so that they appear like a relative bargain.</p> <p>Emphasize benefits, attempt to monetize cost of time and health, show how to minimize fuel costs, and provide samples and free trials to demonstrate the quality of life improvement.</p>

Best fit Strategies for Targeting Female Improved Cookstove Purchase

Building on the tactics described above to address common barriers and bias as well as to tap motivation for improved cookstove purchase, the following describes briefly the sales, marketing and financing strategies that may most impact female consumers' willingness and capacity to purchase improved cookstoves. The suggestions combine several strategies to address multiple practical and behavioral barriers at once, thus increasing purchases among several female consumer groups at the same time. They also encourage immediacy to help to translate intention into action by pushing the purchase process forward and building commitment.

1. EXPANDING POINTS OF SALE: Placing Improved Cookstoves Where Women Frequent

Barriers addressed: Access to information, limited shopping radius, transportation challenges

Target consumers: This strategy specifically targets women who work and travel to markets, women work or run small businesses, and women who work and live in peri-urban areas – creating the opportunity to learn and to purchase an improved cookstove to the places where these women live, work, and shop.

How it works:

Recruit: Satisfied customers make good salespeople; retailers should contact women who have purchased the stove and expressed exceptional satisfaction with their purchase who are also already selling in markets. Recruiting happy customers who are themselves positioned to sell is a great early entry point.

Consign: Consigning a small number of cookstoves to these women for them to sell is the easiest way to get sales started. The consignment price should allow for a small margin for the main retailer but allow the salesperson to sell the cookstoves at a competitive price and still make a profit. Retailers could take orders from the salespersons offering the cookstoves on credit.



2. EXPANDING POINTS OF SALE: “Auction Days”

Barriers addressed: Lack of information, limited shopping radius, and transportation; if combined with saving boxes or savings groups, then also present-bias, self-control, and lack of planning.

Target consumers: Women in small towns and villages where the cookstove is not currently available, small business women who sell at auction days, dependent women who have saved for auction day, metal stove users who may have come to the market to buy a replacement cookstove.

How it works:

Retailers should take a small number of cookstoves to “auction” or market days in communities where the cookstoves are not currently being sold. Auction days typically transpire once in a week and attract large crowds from surrounding areas.

Product placement: The retailer should secure a highly-trafficked location, preferably where other higher-priced, cooking items are sold and look for opportunities to attract attention.

Building the market: The retailer should expect that the first couple of trips will mainly serve to build awareness of the product. Auction Day participants are usually more rural, lower in income and need more time to prepare savings. At the same time, they’ll look for consistency of presence as a measure of quality. Other vendors in the market may be the first customers.

Securing commitments: One way that retailers could help encourage active saving for the cookstoves at the same time as getting valuable information about how many cookstoves to bring the next time would be to employ the saving box and commitment card. The retailer can also use his or her trips on auction days to build relationships with local savings groups that then could finance and take delivery of the cookstoves; this may be the best opportunity to reach the lowest income consumer groups.

3. FINANCING:

Retailer-led individual savings box or “piggy bank” promotions

Barriers addressed: Information, cash constraints, reference price/confidence, present bias, self-control, lack of planning.

Target Consumers: Women living in urban, peri-urban, small towns where cookstoves are currently being sold. As transportation and limited shopping radius remain barriers, this will not likely attract many women outside the current areas being serviced. However, these areas are not yet saturated. The boxes are likely to be especially popular with those women who have some small but fairly regular income.

How it works: Retailers give out free savings boxes to people coming in to place an order for a cookstove. At the time of placing the order, the customer makes a pledge to complete her savings by a particular date. The customer is given a card to schedule and track her deposits. The retailer notes down the pledge date and places the cookstove on hold for the customer until that date. If the customer returns with her box by the pledged date, she is given the cookstove and a reward. If she doesn’t return, the cookstove is released back into inventory.

4. FINANCING:

Targeting Savings Groups

Barriers addressed: Cash constraints, transportation, access to information and awareness, limited shopping radius, confidence/reference price, limited decision-making power/control over resources, self-control/preference for tangible, lack of planning and goal setting.

Target Consumers: Small business women, occasional laborers, female heads of households, dependent women, and those living in peri-urban areas, small towns where the stove is not currently offered, and villages. These women tend to face more cash constraints than salaried women.

How it works:

Identify and connect with savings groups. Savings groups are extremely common and easy to find.

Meet with and provide information to groups. Once groups have been identified, the retailer, community leader or a current stove user speaks with the savings group to explain the benefits of the improved cookstove. They should be given use and care instructions at the same time.

Agree on a financing and delivery strategy with the group. After the presentation of the benefits, women should be given one week to decide whether or not they want to begin saving for the cookstove. This will allow them time to consult with their husbands, if they need to do so.

5. GETTING THE WORD OUT:

Referral Coupon and Incentivizing Person-to-Person Recommendations

Barriers addressed: Lack of information, lack of reference price, present bias, price anchoring.

Target consumers: This strategy will reach a broad spectrum of female consumer segments, but will be particularly effective at reaching women who lack the confidence to approach a retailer without knowing how much they should pay.

How it works:

Process: Retailers pre-print referral coupons to hand out to customers who buy the stove. When the referee is ready to buy the cookstove, s/he brings the coupon into the retailer and receives the guaranteed price. The retailer offers the person who made the referral some kind of bonus or incentive the next time that s/he comes into the shop.

Coupon appearance: Coupons should feature a picture of the improved cookstove, list the prices and sizes available, and mention that it is hotter, cooks faster, and burns less charcoal than a regular stove – written in local language (Luo). A referral price should be listed. The coupon should be time-limited to create a sense of urgency. The back of the coupon should have a place for the customer who is making the referral to include his or her name and contact details.

6. GETTING THE WORD OUT:

Radio Advertisements

Barriers Addressed: Lack of information, lack of a reference price, price anchoring, limited shopping radius

Target Consumers: Everyone, but it can be especially helpful for dependent women and women in villages who are less mobile and less likely to come to town, see the cookstove in a shop, and inquire about it.

How it should work: Retailers should contract with local radio stations to broadcast talk shows and advertisements for the cookstoves. Both the talk shows and the advertisements should feature testimonials from users. Additionally, dramatizations of dialogues or stories told by users can be used in the advertisements. These dialogues could be pre-recorded and played as advertisements. Radio spots are most likely to reach women when they are cooking.

Applied Research: Evaluating Best Fit Strategies in Practice

From September 8-November 21, 2014, Mercy Corps led an 11-week investigation into the capacity of targeted sales and marketing strategies to increase improved cookstove purchases among female consumers in East Acholi.

In total, 290 improved cookstoves were sold during the research period. On average, 26.4 improved cookstoves sold each week, equaling a 49.2 percent increase in weekly sales volumes over the previous year. Among resellers that participated fully in both market and shop-based sales, 78 percent of sales were to women and 22 percent of sales were to men, amounting to a 33.3 percent increase in the percentage of female purchases over the previous year.³

Throughout the applied research period and with targeted marketing and sales strategies in place, weekly sales volumes shot up by almost 50 percent when compared to the previous year's sales rates. Moreover, women accounted for a full 33 percent more of all purchases.

Testing was carried out in partnership with five East Acholi-based improved cookstove resellers and distributors. Throughout the applied research, customer information was collected at time of purchase in addition to post-purchase follow-up. Mercy Corps closely monitored all testing, data collection and research.

Strategies chosen for testing were guided by two main boundaries:

First, our research indicated that urban-based, female charcoal users with some independent source of income were a high-potential and, to date, overlooked and poorly-targeted consumer group in East Acholi. It also indicated that though willing to pay and capable of purchase, low income, rural, and agriculturally-dependent women as well as women with limited decision-making power within their household would need some time to prepare for cookstove purchase. The short applied research period limited targeted consumers to the first group and thus sales and marketing strategies tested to those that were designed to trigger purchase among these consumers.

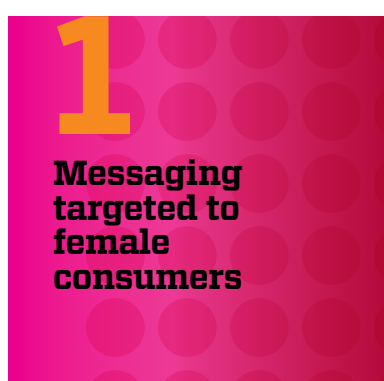
Second, Mercy Corps' improved cookstove programming in northern Uganda is facilitative in nature. We offer targeted support to local and national private sector cookstove players to address gaps that limit the emergence of a highly functional market system, rather than intervening directly. Sales and marketing strategies tested were strategies that could be led by our private sector partners throughout the research and, if successful, carried forward by them after the close of our programming. Strategies were designed to be simple and straightforward accordingly.

³ In October 2013-January 2014, Mercy Corps supported an 18-week sales campaign in partnership with Impact Carbon for the same Energy Uganda Foundation cookstove promoted here. Detailed sales records from this campaign enable us to compare data with that of the applied research period. During this time, improved cookstove sales averaged 17.7 per week. Moreover, females accounted for 58.5 percent of sales while males accounted for 41.5 percent of sales.

Strategies Evaluated: What Worked and What Did Not

The following section details the sales, marketing, and financing strategies tested throughout the applied research period. For each of the four major strategies, the details of the tactics tested are first outlined, followed by quantitative and qualitative information that together help to account for which strategies may have led to increased sales and female purchasers. Importantly, while data does offer insight into the effectiveness of each individual tactic and strategy tested, no single tactic or strategy can be evaluated without weighing the others. Tactics were applied in tandem to maximize overall effectiveness.

Limited understanding and awareness of improved cookstove benefits, availability and costs emerged as the biggest barrier to improved cookstove purchase among East Acholi female consumers during our consumer level research. Accordingly, Mercy Corps tested three sales and marketing tactics designed to overcome information gaps that most inhibited female improved cookstove purchase: messaging oriented to female interests, price references, and customer testimonials.



MESSAGING ORIENTED TO FEMALE INTERESTS

Overview: Consumer research indicated that women and men appreciate different benefits associated with improved cookstove use. Men expressed the greatest appreciation for the cost savings associated with reduced charcoal use while women expressed most appreciation for time-saving benefits. Accordingly, all marketing material, including signs, coupons, radio testimonials, sales agent and reseller messaging, was directed to focus first on benefits that appealed most to women and, second, on benefits that appealed to men. Signs listed seven total benefits in the following order: heats and cooks fast, saves time, saves money, uses less charcoal, durable, clean, and portable.

Results: *Messaging that speaks to time-savings interests appears to have motivated a wider spectrum of purchasers than in previous campaigns that did not feature time-savings messages.*

PRICE REFERENCES

Overview: Nonexistent price references, when combined with women's limited capability and confidence to purchase larger goods, emerged as an important barrier for women's improved cookstove purchase. East Acholi female consumers are afraid of overpaying for goods and can be so intimidated by products that appear to be expensive, like improved cookstoves, that they will not even initiate a conversation with sales staff when interested.

The program hypothesized that posting price range information widely would boost women's confidence in their capability to purchase, translating to higher sales overall. To test this, all marketing material offered a price range of UGX 18,000 – 28,000 for cookstoves.

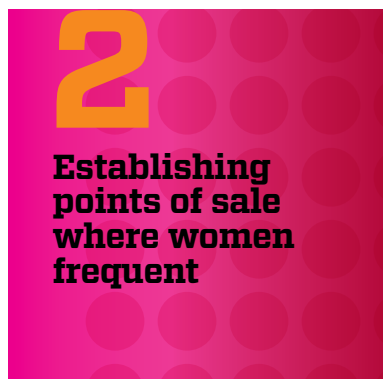
Results: *Qualitative feedback indicates that price references boosted consumer confidence while still allowing space for price negotiation that is important to both resellers and consumers in East Acholi.*



TESTIMONIALS AND RADIO

Overview: Research indicated that East Acholi consumers appreciate communication most in the forms of testimonials, dramatizations and dialogues. Further, use of these modes of communication is effective over radio and reaches a large swath of the population, across sexes. During the applied research period, two, 30-minute radio “talk shows” were undertaken at each of the two major radio stations in East Acholi. Both played at peak listening hours in the evening and featured a semi-structured dialogue between a radio announcer, female cookstove purchaser/user, and a local cookstove reseller. The female cookstove user was asked to discuss her experience with the stove, highlighting benefits that would appeal to other women, as well as price references for each of the three cookstove sizes.

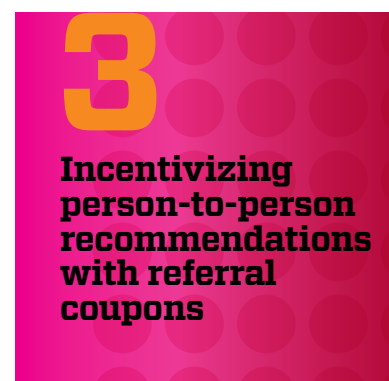
Results: *A small percentage of purchasers suggested that the radio was the means through which they first learned of improved cookstoves and does not appear to have motivated consumers significantly. However, testimonials themselves were likely very effective.*



Overview: The team hypothesized that establishing cookstove sales points in places where women visit often and do so comfortably would help to overcome limited information, shopping radius and transportation challenges, enabling women's increased purchase. Prior to the research, cookstoves could only be found in shops located in town centers. However, most women visited shops only to make a specific purchase. Women also indicated that they were intimidated by shops. However, most women typically visit main markets at least once in a week.

With this in mind, the team targeted market-based resellers to test the impact of expanded points of sale in places frequented by women on women's improved cookstove purchase. Sales points were established with female vegetable and commodity resellers in major markets in each of the four town centers. Sales points were all equipped with signs as well as several cookstoves to sell on consignment. Resellers were each given a cookstove to use at the market to familiarize themselves with the product. They were also trained to discuss cookstove benefits that motivate women, specifically.

Results: *Multiple sales points located in areas regularly frequented by women, particularly main markets in town centers, reached high numbers of people and boosted overall sales significantly, especially to women.*



Overview: Our consumer research indicated that personal referrals are a primary source of information about products and often strongly motivate consumers to purchase. Referral coupons designed to encourage the spread of information about improved cookstoves and to prompt purchase were selected for investigation accordingly.

Local language “coupons” (small fliers) were designed with pictures and messages about improved cookstoves that appeal to women as well as price ranges. Coupons were left with sales agents, resellers and owners in market and shop points of sale. Each was carefully instructed to give five coupons to improved cookstove purchasers after writing the purchaser's name on the coupon. They were also instructed to tell purchasers that if they were to give the coupons to people who purchased, then they would be given a packet of salt for each sale. The reward was intentionally small, designed to be undertaken by local cookstove resellers at the close of GACC/WEF research if the strategy was successful.

Results: *Referral coupons were widely misused and ineffective as a result. This may be due to mixed understanding, value and motivations of sales agents and resellers tasked with employing them. Informal referrals, on the other hand, appear to play an important role in sales and more so for women than men. Customers spoke to an average of four people each about their improved cookstove, with just under half of these committing to a purchase themselves.*

4

Leveraging savings groups

Overview: Earlier consumer research indicated that access to capital for consumers was not as big of a challenge as earlier hypothesized. We found that nearly all consumers were capable of saving for purchase; rather, other barriers proved more inhibiting. Still, access to ready cash is a challenge for some women, particularly those in rural settings and with seasonal agriculture as a main source of income. Though our applied research phase did not explicitly test savings group targeting, it did try to incorporate this strategy where possible. Specifically, sales agents were instructed to target women's savings groups and to encourage them to save together toward the purchase of an improved cookstove.

Results: *Financial capability was not a major hurdle for improved cookstove purchases. Almost all of the purchases made were completed*

with a single cash payment. With respect to finances, behavioral challenges proved more inhibiting. Those that purchased improved cookstoves seem to have done so with relative financial ease. Savings discipline and spending restraint, according to interviewees, were bigger challenges to their improved cookstove purchase. Savings groups that were self-organized around cookstove purchase did help some women to manage their savings and to achieve the improved cookstove purchase.

Sales Agents

Sales agents were a potent force, pushing information, offering testimonials, and providing referrals that resulted in significant sales – especially to women. Though hired to work in close partnership with each of the five participating retail collaborators, sales agents were not an explicit component of our testing. Rather they were planned as a mechanism through which to share information, to coordinate purchase and delivery, and to collect accurate sales data. Though unplanned, sales agents reinforced many of the strategies tested.

Quantitative data makes clear the high level of influence sales agents had toward cookstove purchases. At some time surrounding their improved cookstove purchase, 79 percent of all purchasers interacted with a sales agent. When asked to describe the level of influence that a sales agent had over the purchaser's decision to buy an improved cookstove, 98 percent of those that interacted with a sales agent at any time surrounding their purchase indicated that the sales agent was moderately to highly influential – with 54 percent selecting “very influential.” Moreover, qualitative discussions with resellers, sales points and sales agents themselves also indicated that sales agents played a huge role in sharing information and in managing end user recruitment and sales.

Purchaser Profile

In addition to the relative effectiveness of each tactic and strategy employed, we investigated the role of all tried concurrently toward increasing female improved cookstove purchase broadly and that among our target consumer groups specifically.

The profile of the average improved cookstove purchaser indicates that the strategies tested throughout our applied research phase successfully reached targeted consumers. Most improved cookstove purchasers were female, urban-based, charcoal users with an independent source of income and a high degree of control over the use of that income. Specifically:

- **Women purchased 70 percent of improved cookstoves.**
- **Over 90 percent of all purchasers lived in urban or peri-urban locales.**
- **Purchasers overwhelmingly utilized charcoal fuel prior to purchase.**
- **Most purchasers are independent income earners and contribute most to their household's income.**

- **A full 85 percent of purchasers indicated that they exercise total control over the use of household income.**
- **Most purchasers are married or with a partner, and living together.**

Other consumer groups are not represented among those who purchased improved cookstoves during the applied research phase. These include low income, rural and agriculturally-dependent consumer groups as well as women with limited decision-making power within their household. The program did not test strategies that targeted these consumers.



Beatrice Layet (pictured above) was the first stall owner within Kitgum Main Market to purchase an improved cookstove. After demonstrating the stove's merits for fellow stall owners, she sparked a purchase spree among businesswomen and customers within the market.

Conclusions and Recommendations

Impactful Strategies for Scale-Up

Throughout the applied research period and with targeted marketing and sales strategies in place, weekly sales volumes shot up by almost 50 percent when compared to the previous year's sales rates. Moreover, women accounted for a full 33 percent more of all purchases. Some sales and marketing strategies tested seem to have contributed to these increases more so than others:

Establishing multiple sales points in major markets. Establishing sales points where women most frequent, coupled with information about improved cookstove benefits that appeal to women as well as reference pricing, resulted in many of the sales during our trial.

Pushing information about time-savings benefits associated with improved cookstove use. Women care more about time-saving benefits than monetary benefits. Awareness efforts to increase sales, particularly among women, should capitalize on testimonials surrounding time-savings such as, "cooking beans requires only one cup of charcoal."

Posting price range references. Price references boosted consumer confidence while enabling retailers to negotiate as they would otherwise.

Building a local, female, commission-based salesforce. Sales agents reinforced many of the strategies tested, highly influencing most purchasers and resulting in increased sales broadly.

Learning

A number of lessons emerged from the research period and evaluation that offer insight into the improved cookstove market and considerations for scaling strategies.

Women are powerful consumers worthy of investment. Female purchasers indicated that they earn independent income, contribute majorly to total household income, and exercise a high degree of control over the use of resources – whether they are the main income earner in their household or not. This raises an important question: are businesses undervaluing female consumers? And, what implication does this have for business growth – especially in the improved cookstove sector.

Keep strategies and messaging simple. The more complex a strategy or tactic, the more likely the meaning will be lost. Establishing sales points in major markets combined with posted information is simple and highly effective toward increasing improved cookstove purchase among female consumers and sales overall. It need not be more complicated than this and, indeed, shouldn't be.

Non-financial barriers impact purchase more so than financial barriers. Though the project originally hypothesized that financial barriers significantly inhibit improved cookstove uptake among female consumers in East Acholi, in-depth consumer research and later strategy testing indicate that other barriers, namely ready access to the right information, are more inhibiting.

Markets are price conscious and particularly susceptible to price spoilage. Price consciousness isn't necessarily an expression of the price of the product as much as it is the perception of value when weighed against previous product pricing. In markets where the improved cookstove was sold for the first time and there was no price reference, no one complained about pricing. In markets where other improved cookstoves had been sold previously and a reference price existed, people complained a lot about the burden of higher prices. This offers an important lesson for market entry: establish a higher first price and discount where possible rather than establish a lower first price and need to raise it later on.

Future Research: Missed Consumer Groups

Finally, many of the strategies tested helped to increase improved cookstove purchases among our target segment and are worthy of scale-up. But, what about other consumer groups identified in our research and not targeted during the applied research phase? The boundaries of our study forced us to focus in on consumer groups with the greatest potential to purchase in a shorter period of time. A number of consumer groups, especially low income and rural populations, did not meet this criteria and were not targeted. These groups are more challenging, expensive, and time-consuming to reach, but they also account for most of the population in East Acholi. Follow-on research will be required to test strategies targeted to these groups and their impact on sales among these consumers as well as their viability as private sector-led tactics.

All research and documentation is available in full **HERE** at Mercy Corps' website.

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What motivates women to buy?

Research Study

Valuing, Understanding and Targeting
Women for Improved Cookstoves Purchase

East Acholi, Uganda

Author

The following study is a compilation of works written and organized by Kim Beevers, Market Systems Advisor and GACC/WEF Program Director, Mercy Corps Uganda. The study is a result of two years of research, program design and implementation within the improved cookstove sector in northern Uganda.

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Disclaimer

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About the Study

With the support of the Global Alliance for Clean Cookstoves Women's Empowerment Fund, Mercy Corps undertook an applied research project from March-January, 2014, building on our earlier work and investment in the sector.¹ The overall objective of the project was to identify scalable sales, marketing and financing strategies for increasing improved cookstove purchases among female consumers within the East Acholi sub-region of northern Uganda.

In Uganda, and globally, women are powerful consumers. They're also often overlooked, undervalued and misunderstood. As a result, businesses miss out on vital sales and overall market growth. At the same time, consumers miss out on products and services that can significantly improve their economic opportunities and overall quality of life. This is the case with improved cookstoves in East Acholi.

At the start of Mercy Corps' research, women did not yet account for half of improved cookstove purchases in East Acholi. By and large, resellers could not articulate what motivated women to buy or what inhibited their ability to purchase improved cookstoves distinct from men. As a result, a product built for women wasn't getting to them.

To help to address this missed opportunity, Mercy Corps' led an applied research initiative that closely collaborated with improved cookstove suppliers, distributors and retailers to devise best-fit strategies for targeting female consumers and increasing their improved cookstove purchases. The findings of this research are outlined in four chapters that follow.

Chapter 1: Valuing female improved cookstove consumers

The East Acholi market is ripe for improved cookstove sector investment. It is also undervalued and underserved by the sector. This piece builds the case for both investing in the East Acholi market and, specifically, valuing the female East Acholi improved cookstove consumer.

Chapter 2: Understanding female improved cookstove consumers

In this piece, East Acholi female consumers are better defined by geographic, marital, income and cooking/fuel technology characteristics. Further, barriers, motivations and enabling factors that both contribute and inhibit female consumer improved cookstove purchase are explored and defined.

Chapter 3: Targeting female improved cookstove consumers

Building on a clearer picture of what both motivates and hinders different female consumer groups' improved cookstove purchase, this piece outlines sales, marketing and financing strategies designed to trigger and to enable targeted female consumer cookstove purchase.

Chapter 4: What works? Reaching Female Improve Cookstove Consumers

The final piece evaluates the successes and failings of sales, marketing and financing strategies applied and tested within an 11-week applied research period. It also offers recommendations for scaled replication.

¹ See Annex 1: About Mercy Corps' Improved Cookstove Programming in East Acholi

Contents

Chapter 1: Valuing Female Improved Cookstove Consumers	6
East Acholi Improved Cookstove Market Opportunity	7
Valuing East Acholi Female Consumers	8
Early Learning: Applying Tailored Sales and Marketing Strategies Increases Improved Cookstove Purchase among Women.....	9
Chapter 2: Understanding Female Improved Cookstove Consumers.....	11
Trends that Characterize Current Improved Cookstove Purchasers and Users in East Acholi	13
Barriers that Inhibit Improved Cookstove Purchase among Female Consumers in East Acholi.....	17
East Acholi Female Consumer Groups	24
Female Consumers with the Greatest Potential to Purchase	26
Strategies for Overcoming Common Consumer Barriers and Biases.....	29
Chapter 3: Targeting Female Improved Cookstove Consumers.....	35
Strategies for Growing Improved Cookstove Sales among Female Consumers in East Acholi.....	36
Chapter 4: What works? Reaching Female Improved Cookstove Consumers	47
Research Overview.....	48
Strategies Evaluated: What Worked and What Did Not	50
Sales Agents	58
Purchaser Profile	60
Improved Cookstove Use and Customer Satisfaction Trends.....	62
Conclusions and Recommendations	63
Annexes	66
Annex 1: About Mercy Corps' Improved Cookstove Programming in East Acholi.....	67
Annex 2: Consumer Research Interviewee Segmentation.....	69
Annex 3: Consumer Research Techniques	70
Annex 4: Detailed Consumer Group Guide	73

Chapter 1

Valuing Female Improved Cookstove Consumers

Globally, 2.7 billion people currently live without access to clean cooking facilities. In recognition of the enormous need and potent market opportunity, cookstove manufacturers and distribution companies are developing and scaling access to a range of innovative, consistent and affordable improved cookstoves. However, improved cookstoves are also failing to rapidly and broadly reach their target markets. This is particularly true for Uganda. From 2005 – 2009, national improved cookstove adoption stagnated around 8.4 percent, and in some areas such as the western region (-0.6 percent) and northern region (-6.7 percent), improved cookstove use decreased.

As a nontraditional, socially-driven service provider, Mercy Corps is demonstrating the improved cookstove opportunity in northern Uganda and developing pathways for private sector cookstove suppliers to scale operations and sales across the sub-region. Since 2012, we've been working to address three systemic barriers to the emergence of the improved cookstove market and heightened consumer uptake in East Acholi: tailored distribution strategies, consumer awareness, and availability of appropriate financing throughout the value chain.²

East Acholi Improved Cookstove Market Opportunity

Improved cookstoves have been available for sale in the four districts of East Acholi for about two years. During this time, about 2,500 improved cookstoves have been sold. East Acholi hosts a population of about 870,000 people. At the start of our programming, only about 4 percent of them utilized an improved cookstove. Instead, the bulk of East Acholi households relied on inefficient, costly cooking technologies ranging from in-built mud stoves to three-stone fires.

Improved cookstove sales are making earliest inroads in East Acholi by targeting fuel purchasing households. This consumer group is comprised of largely urban and peri-urban households which regularly purchase fuel, face a higher shadow cost for collected firewood, have a slightly higher income level, and are less satisfied with open fire cooking. Economic benefits and financial returns yield a straight forward, compelling argument for the adoption of an improved cookstove for households in this market.

An estimated 50,000 urban and peri-urban households (300,000 people) live in the East Acholi sub-region. Cooking behavior for households in the urban and peri-urban East Acholi group is complex. Many households use, purchase and collect fuels interchangeably depending on access, availability and income constraints.

Just over 50 percent of urban and peri-urban households regularly purchased fuel in East Acholi in 2012. The high household fuel expenditure demonstrated in Mercy Corps' market assessment creates an opportunity for improved cookstove suppliers: low payback periods for household cookstove purchase. Average household monthly expenditures on charcoal of US\$6 – US\$7 produce a payback period of between two and three months with the 40 – 50 percent reduction in charcoal consumption associated with the most common improved cookstoves available in Uganda and those currently for sale in East Acholi.

At the start of programming, around half of urban and peri-urban households used open fires and did not purchase any fuel. This is a reflection of the fact that "urban" areas in Acholi are small and with rural-based economies (78 percent of income is derived from farming). However, as the urbanization trend continues, firewood collection is growing more difficult. This target group faces high shadow costs for firewood collection. This may be reflected in the high level of dissatisfaction (66 percent) with open fire cooking. Growing dissatisfaction and increasing challenges with biomass collection signal opportunities to target this group with improved cookstoves as well.

² See Annex 1 for more detail on Mercy Corps' improved cookstove sector work in East Acholi.

A clear opportunity exists to target urban and peri-urban market segments within East Acholi. Currently, market penetration is very low for both charcoal and wood burning cookstoves among this target group. The penetration of wood burning improved cookstoves has been negligible. In other words, 48,000 urban and peri-urban households were untapped, potential improved cookstove consumers at the start of programming.

Valuing East Acholi Female Consumers

As cookstove consumers and users, women are a critical component of the sector's effort to reach scale. In East Acholi, women are most often responsible for cooking fuel collection and purchase as well as domestic cooking responsibilities. Further, more often than not, women are also largely responsible for the welfare of their families in addition to the economic production of their households. As a result, women work 12-14 hours a day on average. In other words, women have the most to gain from slashed fuel collection and cooking times associated with use of improved cooking technologies.

Urban female cookstove consumers represent a key, target population within East Acholi for improved cookstove sales. If targeted appropriately, they're likely to drive sales in the sub-region --- enabling uptake among the 48,000 households that were untapped at the start of programming.

Tap women's dissatisfaction with fuel collection times, particularly those in urban areas, to drive improved cookstove sales. In East Acholi, fuel collection is a woman's job. East Acholi urban households spend, on average, 30 hours per month collecting firewood. Women are overwhelmingly responsible for fuel collection – 87 percent of adult females are the primary fuel collector in their household. In Mercy Corps' 2012 market analysis, when asked why they chose to purchase an improved cookstove, 30 percent of respondents identified reduced time collecting fuel. This indicates that reducing wood collection time does drive improved cookstove purchase; reducing time investment in firewood collection is a desirable outcome and one that a significant proportion of East Acholi households are willing to invest in.

High fuel costs drive improved cookstove sales. The more time a woman spends collecting firewood, the more likely she is to purchase supplemental fuel. In East Acholi, the more time it takes to collect firewood, the more likely the household is to purchase alternative fuel sources. In addition to fuel collection time, 40 percent of respondents identified fuel savings as their motivation for purchasing an improved cookstove. On average, an East Acholi household spent \$78 a year on charcoal and \$56 a year on firewood in 2012. While 87 percent of urban households collected firewood, they also purchased supplemental fuel to meet their cooking needs. Of the households that purchased firewood, 88 percent also collected firewood. At the same time, 66 percent of households that purchased charcoal also collected firewood. Further, 34 percent of urban households also purchased charcoal as a secondary fuel.

Women accounted for half of all improved cookstove sales in East Acholi, indicating high demand among this target consumer segment. At the start of programming, improved cookstove resellers did not apply gender disaggregated sales strategies. However, sales data from 2013 showed that nearly 50 percent of improved cookstove sales came from women. This is unique. Purchasing decisions, household spending and resource control are overwhelmingly considered a male's domain. Typically, women have very little power over resource use. The fact that women drive half of improved cookstove purchases within East Acholi, then, is telling of their interest in and demand for this product and, more importantly, their capacity to use household resources to purchase it. Targeting women with sales, marketing and financing strategies geared toward their interests and needs increase adoption rates --- as articulated in the Global Alliance for Clean Cookstoves' Scaling Adoption of Clean Cooking Solutions through Women's Empowerment Resource Guide.

Early Learning: Applying Tailored Sales and Marketing Strategies Increases Improved Cookstove Purchase among Women

Recent research in Uganda demonstrated that innovative sales, marketing and financing schemes offer new inroads to consumer capital and purchase constraints, especially in rural areas and marginalized markets where traditional financing opportunities remain inaccessible for significant portions of the population. In partnership with a data collection and sales team partner, research tackled liquidity and consumer trust gaps, showing that combinations of offers dramatically increase cookstove adoption rates (in one case from 4 percent to 46 percent and in the other from 5 percent to 57 percent among those offered opportunities to purchase cookstoves).³

Building on this research with the aim of tackling a similar problem in East Acholi, Mercy Corps undertook our own pilot research project for six weeks in 2013 in East Acholi. We showed that experimental financing schemes and novel sales offers that target liquidity constraints, consumer confidence constraints, and imperfect information while also appealing to underlying consumer demands can significantly increase cookstove uptake (in this case, there was a 121 percent increase in sales among participating cookstove retailers). We also went a step further, demonstrating that retailers in post-conflict, rural and marginalized markets are willing to employ new sales and marketing strategies, including extending consumer credit – at their own risk and of their own cost – when the business case can be made. Mercy Corps provided only information and encouragement to retailers; no subsidies, no consignment, no sales staff and no guarantees.

Most often, improved cookstove distributors and resellers treat all consumers alike. But, all consumers aren't alike. And more often than not, it is women who are overlooked, misunderstood and poorly targeted. As women consumers are left behind, overall improved cookstove sales are too. Failure to target women with financing and sales offers that attract them and ameliorate barriers to their cookstove adoption results in the biggest, missed opportunity to grow sales.

Women accounted for 50 percent of sales during our trial, indicating that women represent greater purchasing potential when targeted appropriately. As primary cookstove users, women are overwhelmingly responsible for cooking as well as cooking fuel purchases and collection. So, it's no surprise that women would be attracted to cookstove purchases. However, it is a surprise that they accounted for nearly half of all purchases. Research indicates that decision-making power and resource control within the Acholi household is the man's domain. The fact that women drive half of improved cookstove purchases within East Acholi, then, is telling of their interest in and demand for this product.

In sum, targeting barriers and motivations that drive female consumer purchase with tailored financings, sales and marketing strategies means selling improved cookstoves to the consumer segment with the highest capacity and suppressed demand for their purchase. Women account for half of the potential cookstove market globally and stand to benefit from improved cookstove technology most. Failing to reach female consumers means missing the opportunity to scale cookstove sales and uptake.

³ What Impedes Efficient Adoption of Products? Evidence from Randomized Variation in Sales Offers for Improved Cookstoves in Uganda. Levine, Beltramo, Blalock and Cotterman. 2013.

Chapter 2

Understanding Female Improved Cookstove Consumers

Since 2012, Mercy Corps Uganda has been working to reduce energy poverty in the East Acholi sub-region of Uganda through the development of supply chains, distribution network, and retail marketing strategies for improved cookstoves and other energy efficient products. The Mercy Corps team has made terrific progress in developing the market in the region. Improved cookstoves certified as 50 percent more fuel efficient than traditional cooking methods are now widely available in the sub-region and sales continue to grow. The potential market, though, is even greater.

Responsibility for cooking is almost entirely assigned to women in the Acholi culture, and because of this, women are expected to be among the biggest beneficiaries of new cooking technologies through decreased time spent on cooking and fuel gathering, reduced household expenses, and reduced smoke inhalation. Although women are expected to drive demand for improved cookstoves, they have not been targeted as a specific consumer segment and to date they make up less than half of improved cookstove purchasers in East Acholi.

To address this gap, Mercy Corps is leading a research initiative to develop a deeper understanding of the motivations, barriers, and purchasing behaviors of women in order to develop and to test strategies that target and empower this consumer segment – driving expansion of improved cookstove sales and adoption throughout the sub-region and learning throughout the sector.

This chapter outlines our consumer research, which builds a deeper understanding of consumers and consumer groups within East Acholi.

Consumer Research Objectives

The overall objective of the consumer research was to generate strategies to increase cookstove purchase among female consumers, including specifically targeted marketing messages, marketing channels, product placement, promotions, pricing, and financing mechanisms. The research hypothesized access to information, access to flexible financing mechanisms, and lack of trust or confidence were the primary barriers limiting women's purchase of cookstoves and that these could be overcome with some combination of appropriately tailored marketing efforts and financing mechanisms. It was also hypothesized that the interplay and relative importance of these factors would not be the same for all women. Therefore, an important focus of the research was the identification of specific consumer profiles for sub-segments of women and accompanying differentiated targeting strategies.

Key consumer research questions included:

- Why do some people purchase and others do not? What are the unique characteristics of early female cookstove purchasers that appear to be enabling purchase?
- What barriers inhibit female cookstove purchases and how do these barriers differ among different female consumer sub-segments?
- Which sub-segments have the best opportunity for adoption and purchase in the short term? Which sub-segments will require longer term cultivation?
- What are the right messages, marketing, promotion and financing strategies and channels to sell more cookstoves to specific female consumer sub-segments?

Consumer Research Methodology

Given the nature of the research questions, a highly exploratory research approach was taken. The research was highly iterative with the interview guides and tools being constantly refined and adapted to explore new, relevant factors and dynamics revealed in prior rounds of interviews and focus groups. All research methods

were qualitative. Individual in-depth interviews were conducted as well as focus groups using a mixture of participatory rapid appraisal (PRA) tools, direct discussion questions, and forced decision exercises. The specific combination of tools and questions applied varied according to the areas to be explored, group profile, and group dynamics.

The segmentation also evolved as we developed a more nuanced understanding of which factors were significant in identifying consumer segments with differentiated access profiles. Key factors that emerged as criteria for segmentation were marital and co-habitation status, current fuel type, current cookstove type, proximity to where cookstoves are sold, and women's income source and level. In addition, we sought to interview husbands who purchased improved cookstoves for their wives and the wives of those men so as to understand the household decision-making process from both perspectives. We also interviewed and conducted focus groups with women improved cookstove purchasers to explore the characteristics and conditions that motivated and enabled them to purchase the stove.

Overall, 47 individual interviews and 11 focus group discussions were conducted involving a total of 117 participants. The breakdown of the specific segments can be found in Annex 1. Interviews and focus groups were conducted throughout East Acholi, northern Uganda and specifically in Kitgum Town Council, Padibe East, Pader Town Council, Patongo, Kalongo, Parabek Kal, Parabek Ogili, Kitgum Matidi, and Pajule. The interview and focus group participants were not selected at random. Instead, every effort was made to locate and interview individuals who were representative of their segment. Factors or characteristics that may be significantly atypical were noted and taken into account during the analysis.

Trends that Characterize Current Improved Cookstove Purchasers and Users in East Acholi

The research examined purchasers of improved cookstoves (positive deviants) to understand what factors, motivations, and conditions may have contributed to their ability and willingness to purchase the cookstove. The following trends and patterns are likely to have contributed to greater access or motivation to adopt improved cookstoves among early purchasers.

Common Motivations for Improved Cookstove Purchase

Women and men reported different motivations for purchasing improved cookstoves. Women were primarily motivated by the time savings, faster cooking and hotter burning benefits of improved cookstoves. Men, on the other hand, were focused primarily on reducing household expenses and only secondarily on saving women time.

Female purchasers were primarily motivated by time savings and stretching household resources benefits that they associated with charcoal savings.

Women who purchased the improved cookstove were most often motivated by a desire to save time and stretch household resources. Women working outside the home, in particular, were strongly interested in the stove being hot and cooking fast as these freed up their time to do other work. Saving time, cooking faster, and the high heat of the improved cookstove were mentioned by all three focus groups as well as 8 of 11 individual interviews as key factors motivating their purchases.

Women were interested in saving charcoal, which has dual significance for women that is distinct from men. First, they spend less money on charcoal. Second, because the charcoal burns slowly while remaining hot enough to cook they no longer need to continually check the stove and feed the fire, freeing up their time to manage other responsibilities. One of the most frequently cited benefits of the stove was that it only requires one initial cup of charcoal to cook a pot of beans. This enabled women to go off to work in the garden or at the shop, and return to fully cooked beans for lunch or dinner.

Less focused cooking time is the biggest way that women view the time saving benefits of improved cookstoves. However, women also stated portability, durability, low maintenance requirements and cleanliness as other important, time-saving benefits associated with improved cookstove use and as impetus for their purchases.

Male purchasers were primarily motivated by reduction in expenditures that they associated charcoal savings.

Men, on the other hand, were primarily motivated by charcoal savings as a means of reducing household expenses. Secondly, though, some men did acknowledge the benefits of reduced cooking time requirements for women. Though a few male participants mentioned other factors motivating their purchase, like observing their wives struggling to light the stove and spending time maintaining clay stoves, or a desire to reduce smoke in the household, all men stated that reducing fuel expenditures was their primary motivation for purchase.

Access to information about the benefits of improved cookstove use correlates to motivation to purchase.

About a third of the men and women that had purchased an improved cookstove also had considerable access to information about the product. Most purchasers learned about the stove either from friends, relatives, or neighbors or a radio talk show. Others seemed to have a unique connection to resale network that afforded them access to information about the cookstoves. For example, one man worked as a driver for a retailer and one woman was related to a retailer. Further, several participants also either worked for Mercy Corps or knew people who worked for Mercy Corps, while others worked or lived in very close proximity to the retail shops. However, even those purchasers with special access to information that motivated their purchase seemed to know only a few of the benefits of improved cookstove use at the time of purchase.

Purchasers believed that the improved cookstove offered high value for its price.

Most purchasers indicated that they expected to derive great value from the improved cookstove. This high perceived value justified for them the higher per product price when compared to that of other cookstoves on the market.

When questioned about their willingness to pay 2-3 times more than what they were accustomed to paying for a stove, some indicated that they were aware that the improved cookstove was of a higher quality than the typical, inefficient metal stove and that one should expect to pay more for that quality and the benefits associated with its use. All but a small number of purchasers interviewed appeared to recognize that they were getting a greater value for the higher price. That said, some did say that the price should be reduced.

Purchasers acknowledged that though the price of the cookstove may be high for others, it was not a major hurdle for them.

Most of the people who purchased a cookstove did not complain of difficulties paying for the stove at the listed prices. Others seemed to feel that because their neighbors/friends/relatives had it that they should have it as well—regardless of cost.

However, some of purchasers indicated shock or surprise upon first learning the price. Most expected it to be less. Although those who purchased the stove did not, for the most part, report difficulties in paying for it, when asked what is preventing others from purchasing it, most said that it was too expensive. Though they were speaking about others, this may be a more honest representation of their true feelings about the price of the stove. It may also be a general perception that others have less money than they do and thus would struggle to pay that price.

Types of Consumer Groups that Purchased Improved Cookstoves

Several groups appear to be more motivated and/or better positioned to purchase the improved cookstove than others. Among these are teachers, health workers, civil servants, and NGO staff, unimproved metal stove users, and female small business owners and workers. Factors that enable and motivate improved cookstove purchase here are highlighted below.

Women with salaries or other paid work

Income of one's own sufficient to cover the cost of the improved cookstove makes it easier for women to purchase the stove. This seems to be due to greater autonomy and decision-making power over their own income, higher family income, or greater mobility and access to information – most likely, though, it is a combination of all of these factors.

Paid work also strengthened the motivation for women to buy an improved cookstove. Time is scarce for this group, and many reported that they were looking to combine their domestic and income-generating responsibilities by cooking at the market or their shop. For these women, portability, time saved by not having to feed the fire constantly, and the quicker cooking times were the most motivating benefits associated with improved cookstove use.

Of the 28 women improved cookstove purchasers who participated either in interviews or focus groups, only two did not have at least some independent income source of their own. Most of these women indicated that they had taken money from their businesses or their salaries to purchase the stove, though a few indicated that they spent their emergency funds to purchase the improved cookstove and one indicated that she used her savings group distribution combined with her work as a casual farm laborer to make the purchase. Only six of the women asked their husbands for money to make the purchase, five of whom were granted their request while one was denied. That one borrowed from her savings group instead. Of the five who received money from their husbands, four received the full amount while one only requested a “top up” to the money she had saved from the food money her husband had given her. Of those who did not ask their husbands for money, only three of them reported discussing the purchase with their husbands—one of these did so because she runs a joint business with her husband and was planning to take money from the business.

In the focus group discussions with non-purchasers, it was clear that the preference was to utilize one's own business revenue, income or savings to purchase an improved cookstove without involving or relying on the husband if at all possible. In one focus group in Kitgum where all five women had some small amount of income from their own activities, not a single one would approach their husband for the money. When asked why, they indicated it was better to work for yourself to get what you want. Although a few mentioned that

they could share the idea with their husbands, they seemed skeptical that they would support it. The Pader non-purchasers group clearly felt that it was their responsibility to get the money for the cookstove if they wanted one. However, unlike the women in Pader who had already purchased the stove, they would also save out of the money that their husbands give them for household expenses even though they all had a little income of their own, suggesting, perhaps, that their own incomes were limited and not enough to purchase the stove outright. Nonetheless, they would not consult their husbands or ask them for the money directly but rather set aside some of the money they were already given.

Teachers, health workers, civil servants and NGO staff

Teachers, health workers, civil servants and NGO staff have a unique combination of enabling and motivating factors leading them to purchase a large share of the improved cookstoves disproportionate to their relatively small numbers in the communities studied. Eight of 10 male purchasers interviewed fell into this category as did 5 of the women. Especially outside Kitgum, most retailers reported that the majority of their customers for the stove come from these groups—particularly nurses and teachers. People in this segment receive regular salaries, tend to be better educated, and often have better access to information than the general population in these areas.

Many of the workers interviewed were not from the immediate community in which they work; this is particularly the case in smaller towns. Instead, they may be located in a town only temporarily and are living apart from their families. Others travel quite some distance to work each day or stay in the community only Monday to Friday, then return to their families elsewhere on the weekends. Because they come from outside and are only stationed there temporarily, many of these people are also likely to be renters and thus in need of a portable (rather than built-in) cookstove. Because of these situations, many of these people reported needing to purchase a new cookstove when they moved to the area. The availability of a small, portable, fuel-efficient cookstove in the local market was an attractive option for them, and all those who purchased reported that they were able to purchase it using their salary in the following pay period.

Further, some of the people interviewed also reported having seen or used other fuel-efficient stoves in other locations in the past, which most likely also increased their willingness to invest in an improved cookstove in their new location. Both male and female civil servants are purchasing the stoves. Several of the men interviewed were staying alone and cooking for themselves, though some of them admitted that they cook very little and that they bought the stove mostly for their wives to use when they are visiting.

Former unimproved metal cookstove users

Unimproved metal cookstove users spend considerable time and money regularly replacing their stove and burning through high volumes of charcoal. Those who were aware of the charcoal-saving properties of the improved cookstove were willing to invest in the more expensive improved cookstove when their old stove once again broke.

Metal cookstoves consume large amounts of charcoal because they do not retain heat at all. This is both time intensive and cost intensive. Further, unimproved metal cookstoves tend to wear out every 6 to 12 months. Interviewees reported that the metal stoves they were using ranged in price from UGX 5,000 to 9,000—roughly one third to half of the cost of the improved cookstove. This group seems both conscious of the value for price return on improved cookstoves and also had a more immediate impetus to purchase --- the need to replace their metal ones.

Barriers that Inhibit Improved Cookstove Purchase among Female Consumers in East Acholi

The research focused heavily on identifying barriers to women's access and uptake of improved cookstoves in order to inform the development of strategies to increase improved cookstove purchases among women in East Acholi.

The following section details the most important barriers to purchase, which are as follows:

1. Limited access to information about improved cookstoves and their benefits limits women's motivation to purchase them.
2. Improved cookstove sales points and placement do not reflect women's limited shopping radius and shopping preferences.
3. Women have limited decision-making power and control over resources within the household, limiting their capacity to purchase an improved cookstove.
4. Nonexistent price references, when combined with women's limited capability and confidence to purchase larger goods, inhibits improved cookstove purchases.
5. Limited access to cash may not inhibit women's improved cookstove purchase as much as first thought.
6. Improved cookstoves are heavy and bulky and thus difficult for women to transport.
7. Though improved cookstoves offer large savings and other benefits over time, these can be intangible and challenging to plan for in the near term.

Limited access to information about improved cookstoves and their benefits limits women's motivation to purchase them.

Lack of information about the benefits of improved cookstoves is one of the main reasons that people do not buy them. Overall, the greatest benefits of the improved cookstove are not consistently communicated nor well known.

Most study participants who knew about the improved cookstove had learned about it either from the radio or from their neighbors or relatives. However, women who lived outside the immediate area where the stoves were being offered usually had little to no information or awareness about the stove unless they heard it on the radio, partly because improved cookstove penetration in these areas is also more limited. This was even true of those who lived on the outskirts of Kitgum town, the largest urban center in East Acholi.

Although some improved cookstove purchasers learned about the stove from their neighbors, sharing information related to the stove among neighbors is far from universal and often little information is transferred even when sharing occurs. A number of those interviewed who owned the cookstove said that they had neither been asked about it nor had shared information about it. Those who did share information said that they were primarily asked about the price and whether or not it was hot.

Not only are cookstove purchasers and users transferring little information about the product, but so too are improved cookstove resellers. For the most part, the retailers who are selling the improved cookstove are not offering many details about the benefits of the stoves. Retailers are not taking the opportunity to explain the benefits of the improved cookstove or to justify the higher prices through higher value to customers. When asked how

"The way that [retailers] are selling this stove, they are not telling people anything about the stoves. They are not being told the benefits. They should be told the benefits, but they are not being told anything." – *Jen Anyamo, study participant whose husband had purchased four improved cookstoves.*

they handle customers who come in and express interest in the stove, almost all of the retailers stated that they tell customers the price of the stove and directly answer only questions that the customer poses to them which tend to be few. This was confirmed by our interviews with purchasers; most study participants reported receiving little to no information at all from the retailer beyond price information. Of the 35 purchasers who participated either in interviews or focus groups, only four reported that they first learned about the cookstoves from a retailer. Of these four, two were relatives or friends of the retailer, one bought based on the sign, and one already had another type of improved cookstove and was looking for a replacement.

Improved cookstove sales points and placement do not reflect women's limited shopping radius and shopping preferences.

At the time of research, improved cookstoves were sold exclusively at a small number of shops in town centers throughout East Acholi. Women, however, typically shop only in markets, rarely visit central locations and are often intimidated by shops. As a result, with current product placement and limited sales outreach, women's awareness of and access to the cookstoves is very limited.

Most women – especially those living in peri-urban areas – rarely go into shops where cookstoves can be found.

Most women reported that they were primarily responsible for purchasing foodstuffs and that they also made some charcoal, clothing, and cooking utensil purchases. These items are usually bought and sold in markets and not in shops. Most women shop in the market closest to them whether that is a local market, an auction⁴, or a neighborhood market. They typically only go into the main market if they need something that is not available in their local market or are looking to buy larger quantities for a better price. They do not frequent shops to purchase goods for themselves or their households. This is largely consistent across all female consumer segments including those that are dependent as well as small business owners and employees. The only exception are those women living in or around smaller towns where just one or two shops stock all that is available in the town. In those cases, there is no option but for these consumers to visit a shop.

Women are time and resource constrained; they try to make purchases as close to home as possible – rarely traveling into town centers where cookstoves are offered for sale.

Not only is transportation expensive, but women are very busy and cannot be away from their homes and/or gardens for long. Female study participants, who are not running businesses and live only 30-60 minutes from main town centers, may only go into town once per quarter. Even those who live just on the outskirts of town may not go to town more than once a month if they are not doing business. Those who are doing business may go as often as 1-2 times per week. However, regardless of their frequency to town centers, when they are there women report that they do not typically walk around looking at what is available in the different shops. Rather, women target what they need—usually at the market or near the market or for a specific purchase, such as a school uniform —and then return home. The end result is that many do not see the new cookstoves even when they are in town.

Women are uncomfortable stopping in shops to inquire about a product, like a cookstove, if they do not believe that they have money and/or the decision-making authority to make the purchase.

More than one female study participant mentioned or hinted that she felt embarrassed or ashamed to strike up a conversation with a shopkeeper to inquire about a product and its price if she did not think she had the money or decision-making authority to buy the item. Moreover, women respondents believe that shopkeepers are very busy and do not have time or are not willing to answer questions about products. This may not be a mistaken impression; too busy or not having enough time was the primary reason that most of the retailers

⁴ In East Acholi, an “auction” refers to a large, traveling market that occurs on a weekly or monthly basis.

gave as to why they do not explain the cookstoves to prospective customers. However, these inhibitions did not apply in the market setting where women frequently called out to hawkers passing by to ask the price or to inspect the items for sale.

Women have limited decision-making power and control over resources within the household, limiting their capacity to purchase an improved cookstove.

Lack of decision-making power and control can be a significant barrier to women who are dependent on their husbands for money. Though this may manifest itself as lack of money to make the purchase, it may be more about access to the money. Accordingly, though a household may have sufficient money to purchase the improved cookstove, because this money is not in control of the person (woman) who is most motivated to make the purchase, the purchase is more challenging or may not happen at all.

The price of an improved cookstove falls within a higher cost bracket that is usually a man's domain. Yet, typical cookstove purchases or repairs, like cooking, are usually a woman's responsibility.

Participants indicated that cookstove purchases are usually a woman's responsibility in East Acholi as it is also usually a woman's responsibility to manage cooking. Improved cookstoves are more expensive than typical metal stoves, pushing the purchase into a cost bracket that often falls outside of what a woman can purchase on her own in East Acholi. As such, the improved cookstove purchase is often under the control of the husband, especially in poorer families or families where the wife does not earn any income.

The cost and nature of the purchase seems to matter. Women are generally responsible for buying food and hygiene products for the household. Even when this money comes from her husband, most women reported that they were able to choose how they spent this money to meet household needs. These types of purchases were seen almost universally as the woman's domain. While a few of the men interviewed occasionally purchased foodstuffs, they typically saw it as helping out their wives or collaborating—not as something that they would ordinarily be responsible for.

This division of responsibility for purchasing means that even dependent women have some amount of money over which they have control or discretion. It is typically out of this money that they manage to make some small savings—usually in a savings group. The challenge for them is that this amount of money is small and often irregular. When asked what they buy, women repeatedly told the interviewers that they buy only “small-small” things like foodstuffs, cooking oil, some charcoal, soap, and washing powder and that larger purchases are a man's domain. Several of these women had no greater plan for their savings than to smooth consumption when the money given by their husbands was not enough.

Consistent with the literature on intra-household bargaining power, women with independent income exhibited relatively greater confidence and facility in making purchases related to the household than did women dependent on their husbands for money. Further, salaried women seem to have more discretion to make larger purchases. Although they do not universally feel free to make them without consulting their husbands, most reported that they felt comfortable doing so because they were using their own money. This was especially true of those who lived apart from their husbands. Women with some small business income (usually from trading/retailing), reported similar levels of decision-making power over purchases as the salaried women living with their husbands. However, some did report that their husbands became angry when they made larger purchases without consulting them. One woman who bought a bicycle without asking was told she had a “big head” and was not showing respect. Some women let their husbands know they were going to buy before buying even when they were buying with their own money. As such, it appears that some women like to keep their husbands informed and get their buy-in for the sake of peace but may go ahead and buy it without his blessing if they can get the money themselves.

Dependent women indicated that they would most often seek the support of their husband to make the improved cookstove purchase as purchase without his support would carry more risk.

First, dependent women control little money, usually UGX 5,000 (\$1.90) per day or less. While these women can and do save from this amount of money, it is harder for them to do so. Since the improved cookstove costs roughly 3 to 5 times their daily food budget, most anticipated that it would take them weeks to months to save the UGX 17,000-25,000 required to buy the stove compared to the range stated by women with some income of their own.

Second, it's risky for dependent women to set money aside for an improved cookstove purchase out of the household necessities budget. Dependent women run a greater risk that their husbands will become angry if they purchase on their own with household money without consulting the husband first. Dependent women also run the risk that their allowance will be reduced if their husbands find out that they are spending less than expected. One focus group discussed this issue at length. They said that some women would be afraid to base the case for purchasing the cookstove on reductions in charcoal expenditure as their husbands might then reduce their spending money knowing that less was needed for charcoal expenditure. Dependent women fallback on small savings from daily allowances as well as reduced fuel and food consumption as coping strategies to manage hard economic times.

Nonexistent price references, when combined with women's limited capability and confidence to purchase larger goods, inhibits improved cookstove purchases.

As with other types of purchases in Uganda, prices for improved cookstoves are both rarely posted and always negotiable. The lack of a reference price for improved cookstoves is a critical information barrier that significantly impacts potential female purchasers, especially those with lower levels of resources, lower education, and lower self-confidence. Without price certainty, consumers don't know how much money they have to gather, believe that they may be overpaying, or are faced with risking the embarrassment of rejection in small, interconnected communities.

Female consumers are afraid of overpaying for goods and can be intimidated by products that seem expensive when information about these products is limited, as with improved cookstoves.

Improved cookstoves are new to the East Acholi sub-region. Unless women had learned the price from a friend or neighbor, most didn't have any idea how much improved cookstoves should cost. Women who were newly introduced to the cookstove through the research process were asked how much they thought the cookstove would cost. Women had no idea how much it should cost. Answers offered ranged from 7,000 to 90,000 and everything in between. Because the only thing that they have to compare it to is the cheaply made metal ones that retail for around UGX 5,000-9,000, when participants were told that the price was 17,000 or 20,000, they perceive that the retailer is trying to take advantage of their inexperience and limited access to information. As of right now, the cookstove retailers do not consistently provide any additional information to justify the higher than expected price which could be generating a sense of mistrust.

Female consumers believe that improved cookstoves too expensive for people who consider themselves poor or lower in income to purchase.

Several women indicated that although they had seen the cookstoves displayed in front of shops, they did not even stop to inquire about them; these respondents indicated that they believed the improved cookstoves were priced beyond their reach. One focus group who had heard about the cookstove on the radio but had not purchased had thought that the cookstoves cost somewhere between UGX 35,000 and 90,000—considerably more than the actual price range

Uncertainty about how much to expect to pay for an improved cookstove acted as a barrier to even initiating the conversation. According to one focus group participant, "I did not have money, so how am I going to ask the price? The person might begin to negotiate and reduce the price, but I will still not have money to pay."

of UGX 17,000-28,000. Accordingly, as with many situations where the price is negotiable in East Acholi, to inquire about the price is to open the negotiation – this is only done if the negotiator has reasonable certainty that they can pay for the good at the final negotiated price.

Female consumers are at times afraid to approach sales staff to inquire after products for fear that they may be rejected or mocked because they don't have the resources to pay for them.

Several interviewees stated that they were reluctant to approach an improved cookstove salesperson unless they felt confident that they had enough money to make the purchase. One woman clearly explained that she does not feel comfortable asking shopkeepers for information about a product because “Sometimes you approach the shopkeeper, and she talks to you and reduces the price, and when you don't have the money, it is embarrassing.” Even though some of the retailers may be willing in certain cases to extend credit or offer payments on installments, many people in need of these facilities will not take the step of approaching them to inquire.

Some female consumers prefer to pay in cash rather than to ask for a favor of credit for what they see as a non-essential purchase.

Study participants repeatedly indicated that they would prefer to approach the retailer when they were confident they had enough cash or knew in advance that they would be able to get a specific deal regarding price and credit or installment options. One interviewee's story illustrates this best: The woman, who was completely financially dependent on her husband, had received a free trial but had returned the stove because she didn't have enough money to purchase it fully with cash. She was pleased with the performance of the stove, but she found it to be too expensive. She said that though she would eventually buy it, she needed to save for it. When the interviewer inquired why she did not approach the retailer—who clearly trusted her enough to give her the cookstove for a 2-week free trial—to perhaps take the stove on credit or against a deposit on an installment plan, she indicated that even if he would be willing to give her the cookstove on credit, she preferred to wait until she had the full amount of money saved before approaching him.

Limited access to cash may not inhibit most women's improved cookstove purchase as much as first thought.

Nearly all female consumer segments seemed to have the financial capacity to buy the improved cookstove if they were properly motivated and had some time to prepare for the purchase. This is a critical research finding that differs from that hypothesized. Though many people interviewed suggested that the price of the improved cookstove was also a barrier preventing other people from buying it, the price may not be as big of a constraint as other factors.

Most interviewees reported that they could gather the money required to purchase an improved cookstove in a short period of time.

Although most participants reported that they did not have enough cash on hand, (UGX 17,000-28,000 (USD\$6-10)) to purchase the improved cookstove on the day of their interview, nearly all indicated that they could save the money required for purchase within a relatively short period of time—usually a matter of a few weeks to 2 months.

The notable exceptions to this were a group of subsistence agriculturally-dependent, firewood-using women who were primarily widows living in villages and a group of women fully dependent on their husbands. These two groups—who for different reasons handle very little cash—would have significant difficulties in accumulating the sum needed to purchase the stove, especially during June-July when there are no crops to sell. These are the most cash-constrained groups of women in East Acholi: those who are dependent on husbands and/or subsistence agriculture.

Other than these groups, the women most likely to face real, hard cash constraints are women who had recently suffered a setback, loss, or crisis that wiped out their emergency fund or reduced the working capital of their businesses. It will take these women some time to recover their liquidity. A new cookstove purchase would not be where they invest first.

Some women have enough cash that they can buy an improved cookstove without saving at all.

Female consumer capacity to pay cash up front or to borrow informally to complete the improved cookstove purchase is higher than originally believed.⁵ The researchers used techniques⁶ designed to reveal preferences in terms of return on investment, access to ready cash, and relative value placed on reduced expenses as compared to increased income among participants. When possible, participants were given the opportunity to buy the improved cookstove samples to try to assess ability to make the purchase if it were a unique opportunity to purchase. While some were clearly regretting that they did not have the money at that moment and could not get it, others, when given the real opportunity to buy, were able to come up with the money on the spot. For example, one woman who overheard the team interviewing another woman in the market told us that she wanted to buy and had 10,000 saved toward the stove. When she was told that if she came up with 19,000 she could walk away with the sample, she came up with the money within just a few minutes. This was not the only case where people reached into their pockets and began counting money and calling to others to borrow when presented with an opportunity to buy. Importantly, all of these women received extensive information about the benefits of improved cookstove use before they were offered the opportunity to purchase.

Coming up with a lump sum of cash required to purchase an improved cookstove can be a challenge for women.

Even though a household may technically be able to afford the improved cookstove, coming up with the lump sum of cash for an up-front payment can still be difficult for women. Most women who are not salaried or in business for themselves are given a relatively small amount by their husbands as an allowance for household expenditures. Depending on the income level, UGX 5,000 to 10,000 seems to be an amount that women typically can put their hands on quickly for making purchases. Several women indicated that they usually go to auction day with about UGX 10,000 in their pockets. When asked how much they would be willing to put as a down-payment or first installment on an improved cookstove, those who were interested in doing so most often said UGX 10,000, though a few also mentioned UGX 5,000.

Given the current improved cookstove price range of UGX 17,000 to 28,000, this suggests that for most people, breaking the stove payment into two installments would be enough to enable purchase. For the poorest or most dependent woman, it could take up to five installments to enable their improved cookstove purchase. That said, many women gave the impression that they may have 20,000-25,000 set aside at home for emergencies or opportunities. If they were properly motivated to tap this fund, many of them could likely pay for the cookstove in cash and right away.

Women report limited ability to borrow cash for purchases, but this is likely under represented.

Women in our study reported little confidence in their ability to borrow in times of need, citing that when they needed to access money for some urgent purpose they would reduce expenditure on food, go work as casual paid labor in the fields, or sell something for extra money rather than borrow.

⁵ This finding is supported by the randomized trial conducted by Levine and Cotterman⁵ in Kampala which found only 4 percent of study participants self-reported liquidity constraints measured by the desire to borrow in the past three months, but being refused or not asking for fear of being refused.

⁶ For more information on techniques see annex 1.

While it is true that access to financial services is much more limited in East Acholi than in Kampala, a majority of adult females in East Acholi are involved in savings groups that offer small loans to their members. Informal borrowing was also observed when study participants pooled money to purchase sample cookstoves. It is also worth noting that given a long and expansive history of foreign aid in the sub-region, women exaggerated their lack of access to cash in hopes of securing some additional benefit – as has been common practice for some time.

Similarly, the people interviewed may have been reluctant to mention remittances as a source of income for the same reason as almost no one admitted to receiving them from spouses, children, or siblings in spite of many having husbands living elsewhere in Uganda or abroad for work. Yet, remittances do play a role in the local economy. A 2008 Bank of Uganda study⁷ showed that nearly 30 percent of households in northern Uganda were receiving remittances from abroad. While cash constraints may be real among certain segments of the population, it is likely that both income sources and borrowing capacity were underreported in our study.

Improved cookstoves are heavy and bulky and thus difficult for women to transport.

Improved cookstoves are heavy and bulky and thus difficult to transport, particularly for women moving in and out of town centers over considerable distance. The transportation challenge limits access to the stove to those in close proximity to the retail outlets or who have access to a means of transport.

Made of clay, cement and metal that weighs 8kg to 12 kg and measures up to 31 cm across, the EUF improved cookstoves are bulky, heavy and not easy for women to transport. Retailers do not offer delivery service but rather expect their customers to carry the cookstove from shop to home. Most women within East Acholi travel to markets or town on foot—some coming from 2-5km away. Although transportation of the stove is not impossible for women—after all, it weighs less than the jerry cans of water they carry on their heads—it is not easy or convenient for women to carry them. Some participants expressed fear that they may even break cookstoves during transport. At least one woman who was interested in purchasing from the research team indicated that she could not carry it for the 3km to her home because she had health problems. Another woman who had come to the Patongo market but lived near Pader (several kilometers away) told the retailer there that she was interested in buying the large cookstove, but she did not think she could buy that day because she could not transport it back to Pader.

Though improved cookstoves offer large savings and other benefits over time, these can be intangible and challenging to plan for in the near term.

Along with limited information and awareness of the benefits, availability and costs of improved cookstoves as well as some cash constraints, behavioral barriers and cognitive biases also prevent female consumer access and uptake of improved cookstoves in East Acholi.

Improved cookstoves offer large potential, future benefits and savings that are challenging for East Acholi consumers to fully value in the near term, limiting interest in purchase.

For most households, charcoal purchase makes up approximately 20 percent of recurring household expenses. A 50 percent reduction in that expense should be noticeable. Even so, those who had already bought the improved cookstove generally could not articulate what they had done with the savings derived from reduced charcoal expense. Only one interviewee was able to articulate clear monetary savings – 5,000 each week

⁷ Bank of Uganda, “Inward Remittances 2008,” *Uganda: Workers’ Remittances Report*, Bank of Uganda, 2008. www.bou.ug/bouwebsite/opencms/bou/publications_research/trade_remittances.html, 10.

instead of 2,000. Among those who had not purchased the stove, very few appeared to be motivated by the idea of “saving” by reducing expenditure on charcoal. When asked why, the group in Pader said, “The savings, it is just imaginary. You are not seeing it.”

Improved cookstoves sell future benefits that are, at times, intangible. Future potential, small daily or weekly savings, though a significant amount over time, can be hard to appreciate or to value today. This poses a challenge for the sale of improved cookstoves in East Acholi. Most purchasers learn of the availability and value of the improved cookstove from friends, family and neighbors who have already purchased it. However, if they are unable to fully articulate its benefits, it’s likely that uptake will be slow.

Limited capacity to plan and to budget for medium-term goals may inhibit sales of improved cookstoves to consumer segments that do not have access to the cash required for purchase immediately.

Most study participants indicated that though they may not have the cash on hand for the full purchase of an improved cookstove that they would be able to save for it over a short-medium term. However, interviewees also displayed a low level of planning toward even medium-term goals. Women who are not able to afford the cookstoves immediately, then, may struggle to put together a plan for acquiring one without some kind of structured support.

Interviewees were seldom able to articulate clear plans or uses for the savings they were making either at home or in their savings group. For savings groups, most cited uses such as school fees, treatment of illnesses, and business inventory replenishment that were ill-suited to such a long-term, illiquid savings mechanism where money would not be available when the need or opportunity arose. This suggests that women did not have clear plans for their savings and were instead using the money for whatever large expense confronted them around the time of their savings distribution. Some even admitted to treating the money distributed at the end of the cycle as a windfall.

East Acholi Female Consumer Groups

In East Acholi, women usually belong to multiple consumer segment groups. For improved cookstoves, a woman’s specific access profile will best be defined by the interplay of the advantages and disadvantages associated with the various segments to which she belongs. In some cases, disadvantages compound to make access to improved cookstoves unlikely and difficult. In most cases, however, advantages and disadvantages tend to partially cancel each other out. Moreover, behavioral barriers highlighted above generally affect each consumer segment similarly.

The chart on the following page summarizes the impact of these barriers as well as the ability and motivation factors that influence each consumer segment. A detailed summary of the barriers and motivating factors for each segment together with strategies specifically targeted at that segment can be found in Annex 3.

Though simplistic, the chart highlights those female consumer segments for which it will be easier to enable improved cookstove adoption as well as those for which it will be more challenging. For example, married women firewood users living in villages in households dependent on agriculture who are dependent on their husbands for income are among the least likely to buy improved cookstoves. This group has relatively high barriers to access across the board and very few offsetting motivating factors. On the other hand, female salaried or small business owners in urban areas or small towns who are heads of household or living separately from their husbands may be early adopters as they face few obstacles in terms of decision-making, have regular income, and confront high demands on their time – all factors that highly motivate a switch to improved cookstoves.

Summary of barriers and motivating factors for improved cookstove purchase by consumer group⁸

	Primary living location size					Marital status				Income Type & Source					Cooking technology & fuel			
	<u>Urban</u>	<u>Peri-urban</u>	<u>Small town</u>	<u>Rural</u>	<u>Renter</u>	<u>Female head of household</u>	<u>Married, Living with Husband</u>	<u>Married, living apart from husband</u>	<u>Salaried</u>	<u>Regular, Small Business Income</u>	<u>Occasional/Irregular Income</u>	<u>Seasonal Agricultural Income</u>	<u>Dependent</u>	<u>Inefficient Metal Stove Users</u>	<u>Mud/Clay Stove Users</u>	<u>Firewood Users</u>		
Barriers that inhibit improved cookstove purchase																		
Access to information	X	xx	x	xx	x	x	x	x	x	x	x	xx	xx	x	x	xx		
Limiting shopping		xx	x	xx		x	x			x	xx	xx	xx					
Cash constraints						xx					x	xx	xx					
Decision-making/control							xx	x			x	xx	xx					
Lack of reference		x	xx	xx			xx			x	x	xx	xx		x	xx		
Transportation		x	x	xx		x		x		x	x	Xx	xx					
Switching Costs/Fuel															x	xx		
Motivating factors that engender improved cookstove purchase																		
Faster cooking time						++		+	++	++	+	+						
Reduce time feeding fuel						++		+	++	++	++	+		+	+	++		
Less wasted charcoal	+	+	+			++	+	++		+	+			++	+			
Stretch	+	+	+			++	+	++		+	+		++	+	+			
Portability					++				+	+	+				++	++		
Cleanliness	+	+	+						+	+	+			+		+		
Health																++		
Durability/less repair time						+			+	+	+			++	++			
Market Segment Size	Med	Med	Med	Lg	Med	Med	Lg	Sm	Sm	Med	Lg	Lg	Med	Sm	Med	Lg		
Segment Potential Score	Very High	High	Very High	Low	Moderate	High	High	Moderate	High	Very High	High	Very Low	Very Low	High	Moderate	Low		

⁸ Barriers that come into play for a particular segment are noted with an “x”. If the barrier has a particularly strong impact on the segment relative to other segments, it is noted with a double “x”. Motivating or enabling factors are noted with “+” or a “++” to denote those that are likely to be a particularly strong motivator for a particular segment. Detailed descriptions of each of the segments can be found in the Annex 3. Links to each segment can be found in the table above.

Female Consumers with the Greatest Potential to Purchase

Throughout the research, nearly all participants expressed interest and motivation to purchase the improved cookstove. When benefits were articulated and the opportunity to purchase presented, most interviewees – particularly women – wanted the improved cookstove.

However, for some consumers, purchase is easier and more probable than for others. And, because they're motivated, with resources and closer to urban areas, these consumers are also easier and less costly to reach for improved cookstove suppliers, distributors, resellers and sales agents.

Urban-based, female charcoal users with some independent source of income are the low-hanging consumer fruit. This consumer group has also been overlooked or poorly targeted in East Acholi to date. The following shared or overlapping descriptions of different consumers that fall within this headline group help to better characterize consumers within this segment.

Urban-based, female charcoal users with some independent source of income are a high-potential and, to date, overlooked and poorly-targeted consumer group in East Acholi.

Current Charcoal Users

Early improved cookstove adopters are likely women who are already using charcoal for cooking at least part of the time. This includes as many as 45,000-50,000 households within East Acholi. These women are already purchasing fuel and would experience immediate benefits through cost-savings in fuel purchases. There are two main categories of current charcoal users that each has its own profile.

Current inefficient metal stove users

Inefficient metal stove users are one of the most promising segments to target for improved cookstove sales. This consumer group must replace their metal stove annually and stands to benefit considerably from charcoal savings. According to a 2012 East Acholi market assessment conducted by Mercy Corps,⁹ approximately 11 percent of East Acholi households or roughly 16,000 households fall within this consumer group.

The price of an inefficient metal stove is roughly a third of the price of an improved cookstove. This price anchors cookstove cost perceptions. Comparatively, improved cookstoves are more expensive and this consumer group perceives them as such. As a result, convincing buyers that improved stoves are worth the additional money should be a messaging focus.

Messages should emphasize tangible goals. Like, reducing the amount of charcoal burned so that purchasers are able to use the charcoal they have now for twice as long. Or, highlighting the durability of the improved cookstove as it will likely last significantly longer than current metal stoves – 5-10 metal stoves will come and go at a total cost of UGX 25,000-50,000 during the lifetime of just one improved cookstove. Messages should be offered at the point of sale and at the time that people are inquiring about price. This will help to overcome “sticker-shock” when metal stove users hear the price of the new stove.

⁹ David Nicholson and Kim Beevers, “Market Analysis for Fuel Efficient Cook Stoves in the Acholi Sub-region, Uganda,” Mercy Corps, 2012. www.mercycorps.org/research-resources/market-analysis-fuel-efficient-cook-stoves-acholi-sub-region-uganda.

Current locally-built mud and clay stove users

Locally-built mud or mud and brick stove users are a more difficult sell. However, this is a large consumer segment from which a significant number of people have already purchased improved stoves. According to a 2012 East Acholi market assessment conducted by Mercy Corps, approximately 19-20 percent of homes (roughly 29,000 families) utilize mud or clay stoves as their primary cooking method. Many of these stoves were built by NGOs free of charge, were self-built by the users, or were built by local craftsmen for very low cost. Although there are several different styles, in all cases the stoves are permanent, built-in units that may be either inside or outside. They also require frequent repair.

Many from this consumer group have no history of purchasing stoves and are thus more apt to see the purchase of a new cookstove as unnecessary. They are, quite simply, not in the market for a new stove unless they receive new information motivating them to make a change. In some cases, they may be skeptical that the new stove will save them fuel because some believe that their current stove is “improved” or fuel-efficient – these stoves have been promoted as a more efficient alternative to three-stone or trench fires. Users of built-in stoves may also be somewhat skeptical that the new stove will be sturdy enough to handle the “mingling” that they do when cooking the staple food *posho*. Therefore, it is critically important to reach out to this segment proactively with information that responds to their specific concerns. Direct experience and testimonials will be especially important for converting this group.

Women mud stove users who are working in markets or away from the home may be especially attracted to the portability and durability of the improved cookstove. This group is tied to the location of their built-in stove for a significant portion of the day to prepare meals and this substantially cuts into their income-earning potential. Further, frequent repairs are time-consuming and fall among a woman’s responsibilities. This also distracts from income-earning time and potential.

Women with some independent income or access to financing

Women small business owners, salaried employees, and savings group members all have access to the cash necessary to purchase the improved cookstoves, making easier for them to adopt the improved cookstove if they are properly motivated. If they are already using charcoal, the probability of adoption is higher, but firewood users that fall into these groups are also better positioned to buy than most other firewood users.

Female small business owners living in urban and peri-urban areas and smaller trading centers

These women are a large and important market. Every town and most peri-urban communities have their own markets that are predominantly filled with female traders. In addition, there are significant numbers of female shopkeepers—though they may have less complete control over their income if their husband is involved in the business.

These women are time-constrained but mobile. They do not have time to shop around for new products because they are typically working 6-7 days per week and fear losing customers. They also manage domestic responsibilities, like cooking and child care. This consumer group may not be aware of the improved cookstove unless it is being used or offered in the markets where they work or in their more immediate neighborhoods. Yet, it is precisely because of these time constraints that these women are ripe for conversion to a better cooking technology. Reduced cooking times and hassle matter to these women.

This group is also cost conscious, with a relatively short-term horizon for recovering their investment in savings. Although they may have the money to make a lump sum cash outlay, it is likely that they will use their business money to do it. They will then quickly need to make back the investment to replenish their working

capital. Credit, installment or savings plans which allow them to access the stove before fully paying for it may help to overcome these issues.

Salaried women working for NGOs, health centers, schools, and local government

Currently, this consumer group is one of the biggest buyers of the improved cookstove. Although all salaried women are good to target for their relatively higher purchasing power, salaried women working for these groups are especially good targets. They are mobile, educated, have reliable income, and a need to cook food quickly, efficiently and cleanly. They are also time-constrained.

Although they are a relatively small subset of the population, by virtue of the positions they hold, this consumer group also influences others. These women are in contact with large numbers of people and are in a position that commands respect. In addition to benefitting from the cookstoves themselves, many of these women are contributing to the economic support of other family members. Because many in the consumer group have relatively higher incomes, there is also the possibility that they could buy a second or third cookstove for other family members such as a mother, sister, or child who is not living with them. A strategy that rewards them for referrals or offers special prices for those whom they refer could work well to tap their multiplier effect.

Savings group members

Savings group members are drawn from virtually all consumer segments – the majority of residents within East Acholi belong to savings groups. Savings group members have ready access to a financing mechanism to assist with purchasing the stove. Not only are they already in the habit of setting aside money for a future purpose, they have access to loans from their group as well.

Savings groups are organized at the community or workplace level and, as such, there is a relatively high level of trust among the members. They are generally visible within their community as the better run groups physically sit together for meetings regularly. Savings group visibility and prominence within the community also make them a relatively low risk for retailers to extend full or partial credit or the purchase of the stoves. Meetings also provide a forum for sharing information about the benefits of the stove as well as the real experience of early adopters. These groups typically consist of 15-30 members that would also be a volume of business that would make it worthwhile for retailers to organize a promotional talk and or delivery.

Strategies for Overcoming Common Consumer Barriers and Biases

Multiple strategies can and should be developed to address the barriers and biases confronting each consumer segment. The chart below lists the barriers that are inhibiting women's improved cookstove purchases – in line with those outlined in the previous study section. Then, suggests how these barriers might be addressed or overcome, along with some specific tactics and practical examples for the East Acholi context.

1

Limited access to information about improved cookstoves and their benefits limits women's motivation to purchase them.

Many women are not aware of the improved cookstoves and do not have adequate information about their benefits.

Use multiple channels appropriate to the targeted segment to proactively disseminate messages about the value and benefits of the improved cookstove.

Examples:

- Retailers should provide information on benefits of the cookstove to prospective buyers inquiring about price.
- Demonstration of the cookstove in public places and events such as in the markets on auction days in the smaller trading centers. Small food or snacks could be prepared and given for free to passersby as a way to attract attention and create the opportunity for conversation about the benefits of the cookstove
- Radio talk shows with users to discuss their real experience with the cookstoves
- Radio advertisements using brief dialogues based on real user comments
- Develop referral coupon system to encourage person-to-person information sharing
- Train facilitators/promoters of savings groups to share benefits of the cookstove, ideally providing groups with a sample model they can try.
- Develop referral program for members of savings groups
- Advertise credit, savings, and promotion schemes rather than only offering if people inquire or request them.

2

Improved cookstove sales points and placement do not reflect women's limited shopping radius and shopping preferences.

Women tend to shop close to home or work and rarely venture into shops without a specific purpose in mind.

Bring cookstoves to the places where women work and shop—primarily markets and the shops surrounding the markets in towns where there are already retailers.

Examples:

- Identify women in peri-urban communities willing to selling cookstoves; many markets exist out the outskirts of town. Give them samples and allow them to take orders. Retailers can deliver—for a fee, if necessary.
- Take cookstoves out to auction days in smaller towns
- Develop relationships with one or more people through auction days that would be willing to stock stove and leave 10-20 stoves with that person.

3

Women have limited decision-making power and control over resources within the household, limiting their capacity to purchase an improved cookstove.

Most women have limited decision-making power and control over financial resources within shared households.

Provide talking points targeted at husbands and tailor financing arrangements to fit women's current scope of control over financial resources.

Examples:

- Work through savings groups where women have already established at least a small sphere of control over money
- Provide women with the talking points they need to convince their husbands either through savings and church groups or through the radio.
- Use radio talk shows and announcements to also raise awareness of men and make them more open and susceptible to suggestions from their wives.
- Provide credit or installment plans that allow women to deposit UGX 5,000-10,000—an amount that they typically handle for household expenses

4

Nonexistent price references, when combined with women's limited capability and confidence to purchase larger goods, inhibits improved cookstove purchases.

No reference price undermines women's confidence to approach retailers and to purchase the improved cookstoves.

Include pricing information in advertising and promotions.

Examples:

- Post "first price" on signs and posters
- Use referral coupons with "last price" as guaranteed price for referrals
- Have special guaranteed price for savings groups purchasing in bulk that is promoted through savings group referral program

5

Limited access to cash may not inhibit women's improved cookstove purchase as much as first thought.

Women face cash-on-hand constraints.

Develop culturally appropriate financing mechanisms, such as savings schemes, installment payments or targeted savings group outreach.

Examples:

- Work with savings groups to implement either a special savings fund for the cookstoves or lending for cookstoves
- Provide stoves on credit against a 50 percent deposit for savings groups
- Offer a savings installment plan where women can save with the retailer toward the purchase of a cookstove.
- Offer installment payment plans combined with credit at the retailer so that women can build up a deposit of 50 percent then take the stove and continue to pay installments while utilizing the stove.
- Provide a savings box or "piggy bank" for saving through the point of sale, retailer or savings group

6

Improved cookstoves are heavy and bulky and thus difficult for women to transport.

Improved cookstoves are heavy, bulky, difficult and expensive for women to transport.

Offer delivery to a more convenient pick-up point.

Examples:

- Offer delivery—for a small fee—in peri-urban areas
- Deliver in bulk to savings groups
- Sell at auction days
- Take orders and make arrangements with distributors making deliveries of other products to small towns and villages to deliver stoves for a small fee.

7

Though improved cookstoves offer large savings and other benefits over time, these can be intangible and challenging to plan for in the near term.

Improved cookstoves offer large potential, future benefits and savings that are challenging for East Acholi consumers to fully value in the near term, limiting interest in purchase.

Present bias leads women to prefer investments with short-term pay-outs.

Develop promotions that generate a sense of scarcity or time-limited opportunity to motivate people to act sooner rather than later.

Examples:

- Use limited time offers
- Offering stoves in the community only during auction days
- Create opportunities such as free delivery if buying as a group

Women prefer tangible and immediate benefits over more distant and less tangible benefits.

Use financing strategies to get the tangible product into consumer hands sooner rather than later and employ social pressure mechanisms to strengthen commitment.

Examples:

- Commitment savings vehicles such as layaway plans with the retailers or a special fund in the savings group
- Public goal-setting in front of savings group to generate social pressure
- Offer cookstoves on credit or against a manageable down payment such as UGX 10,000.
- Using messages around charcoal lasting longer rather than saving money
- Give people an opportunity to experience the benefits of the stove before they buy through a free trial

Limited capacity to plan and to budget for medium-term goals may inhibit sales of improved cookstoves to consumer segments that do not have access to the cash required for purchase immediately.

Women do not have the habit of planning for medium and long-term goals.

Create mechanisms to encourage goal-setting and planning.

Examples:

- Offer people who want to open a layaway plan with the merchant a card where they can agree to and list the dates of all their planned deposits. Merchant can stamp, punch or put a sticker on each payment made.
- Encourage savings group members to set goals to purchase stoves and discuss strategies and plans to save for their purchase

8

Women believe that the prices of improved cookstoves and charcoal fuel are much more expensive when compared to their current stoves and fuel, regardless of quality and value differences.

The lower prices of unimproved cookstoves led women to perceive that improved cookstoves are overly expensive.

Widely disseminate realistic prices, addressing quality and value differences with cheaper cookstoves and comparing the cookstoves with an even more expensive technology so that they appear like a relative bargain.

Examples:

- Put a “first price” that is slightly above where the retailer intends to sell them on posters around town and at the shops as well as on the radio
- Offer a special “best price” to anyone with a referral coupon.
- Compare improved cookstoves with another more expensive technology such as gas (if applicable) to put it in a different category from lower priced locally made cookstoves so that the price appears favorable compared to the new category.
- Deliberately address price differential with other local stoves in the market by quantifying the benefits in terms of money saved and time saved.

Current firewood users will see their out-of-pocket costs go up as they switch from firewood which they generally gather themselves to purchasing charcoal.

Emphasize benefits, attempt to monetize cost of time and health, show how to minimize fuel costs, and provide samples and free trials to demonstrate the quality of life improvement.

Examples:

- Provide free trials to leaders in communities predominantly using firewood to demonstrate the benefits including reduction in smoke and time spent collecting wood.
- Encourage villagers to produce their own charcoal and reserve some for their own use
- Provide a week’s worth of free charcoal with the stove purchase
- Show firewood or mixed fuel users how they can use firewood even with the improved cookstove when charcoal is unavailable or unaffordable. Emphasize that this is less preferred but possible.

Chapter 3

Targeting Female Improved Cookstove Consumers

Strategies for Growing Improved Cookstove Sales among Female Consumers in East Acholi

The following outlines sales, marketing and financing strategies that target the barriers and motivations that most impact female consumers' willingness and capacity to purchase improved cookstoves. These are best-fit recommendations that stem from our earlier research to better understand female consumer groups in East Acholi. Not all of these strategies were tested during the applied research phase.

The suggestions combine several strategies to address multiple practical and behavioral barriers at once, thus increasing purchases among several female consumer groups at the same time. They also encourage immediacy to help to translate intention into action by pushing the purchase process forward and building commitment.

Expanding Points of Sale: Placing Improved Cookstoves Where Women Frequent

Barriers addressed: Access to information, limited shopping radius, transportation challenges

Target consumers: This strategy specifically targets women who work and travel to markets, women work or run small businesses, and women who work and live in peri-urban areas – creating the opportunity to learn and to purchase an improved cookstove to the places where these women live, work, and shop.

How it works:

1. *Recruit:* Satisfied customers make good salespeople; retailers should contact women who have purchased the stove and expressed exceptional satisfaction with their purchase who are also already selling in markets. Recruiting happy customers who are themselves positioned to sell is a great early entry point.
2. *Consign:* Consigning a small number of cookstoves to these women for them to sell is the easiest way to get sales started. The consignment price should allow for a small margin for the main retailer but allow the salesperson to sell the cookstoves at a competitive price and still make a profit. Retailers can take orders from the salespersons offering the cookstoves on credit.

Why it works: If improved cookstoves are placed where women typically buy and sell, this will help overcome limited product information and awareness as well as limited movement.

Current market-based resellers, specifically, are well-positioned to reach those women with high potential to purchase improved cookstoves (urban-based, independent income, charcoal users) as this group frequents the market for food, fuel and household purchases often. However, most resellers are not interested or able to stock the large numbers of cookstoves required as a minimum purchase to buy directly from the supplier. Consignment via local resellers in small lots of 10 to 20 overcomes these challenges.

Satisfied cookstove users expressed a lot of enthusiasm for joining the improved cookstove salesforce. And, person-to-person sales between people who know and trust each other work well. Users also indicated that they value both opportunities to work for themselves and to provide a valuable product to the community. They also value them enough to accept lower monetary compensation for their work; many of those interested in selling were willing to take a much smaller profit than the current retailers and, more significantly, the profit they were willing to accept was lower than the commission or referral bonus they were willing to accept.

Finally, “localizing” sales points within trusted networks may help to expand informal credit. People are much more willing to provide credit to people they know. By adding salespersons, retailers gain access to new

customers who are known to and trusted by them, at the same time could potentially expand access to informal credit arrangements through them.

Risks and challenges: Retailers have been reluctant to share profit and challenged to see the value of scaled sales through more points of sale. They have also been reluctant to take on delivery costs. Adapting their perspective will be critical to implementation of this strategy.

Expanding Points of Sale: “Auction Days”

Barriers addressed: Lack of information, limited shopping radius, and transportation; if combined with saving boxes or savings groups, then also present-bias, self-control, and lack of planning

Target consumers: Women in small towns and villages where the cookstove is not currently available, small business women who sell at auction days, dependent women who have saved for auction day, metal stove users who may have come to the market to buy a replacement cookstove.

How it works: Retailers should take a small number of cookstoves to “auction” or market days in communities where the cookstoves are not currently being sold. Auction days typically transpire once in a week and attract large crowds from surrounding areas.

1. *Product placement:* The retailer should secure a highly-trafficked location, preferably where other higher-priced, cooking items are sold and look for opportunities to attract attention.
2. *Building the market:* The retailer should expect that the first couple of trips will mainly serve to build awareness of the product. Auction Day participants are usually more rural, lower in income and need more time to prepare savings. At the same time, they’ll look for consistency of presence as a measure of quality. Other vendors in the market may be the first customers as they will likely have cash in their pockets at the end of the day that they could choose to apply to the purchase of a cookstove, if they were motivated.
3. *Securing commitments:* One way that retailers could help encourage active saving for the cookstoves at the same time as getting valuable information about how many cookstoves to bring the next time would be to employ the saving box and commitment card. The retailer can also use his or her trips on auction days to build relationships with local savings groups that then could finance and take delivery of the cookstoves; this may be the best opportunity to reach the lowest income consumer groups.

Why it works: People travel from a large radius to buy and sell on auction days. These days are a good opportunity to get the word out about the benefits of cookstove uptake. Women in the study—particularly dependent women and those with only occasional income—tended to save up or do extra work to generate extra money for auction days as there is a better selection of items, often at cheaper prices available on these days.

The seasonal difference in income flows is substantial suggesting that in the good months of harvest—roughly October through March—people should be coming to market with considerably more money than they had at the time of the interviews. Therefore, with a concerted effort to raise awareness prior to harvest, it should be possible to sell increasingly more cookstoves as the harvest progresses. Because of the dominance of agriculture in the sub-region, this effect—although more muted--was reported even in urban centers like Kitgum.

Offering free snacks is a good way to attract attention. Because of the principle of reciprocity, people who receive free snacks may feel a certain obligation to the vendor to listen to them talk about the cookstove for a few moments. The demonstration provides the excuse to do so. If the vendor also has savings boxes and commitment cards on hand, s/he can give the person a way to reciprocate in that moment—even if they do

not have money—by making a commitment to buy. This satisfies the principle of immediacy as well by giving people a concrete step they can take now if they are interested rather than waiting until they have money.

The fact that the cookstoves are only available in the community on auction days—which may be as infrequent as once per month—creates a bit of time pressure and sense of scarcity as well. The retailer offering the opportunity to reserve a cookstove for the next auction day or the auction day that matches their commitment date will further strengthen people’s motivation to stick to their goal and follow through on their commitment. This has the added benefit for the retailer of helping him or her estimate the number of cookstoves s/he will need to bring on any given auction day, reducing the transport costs of unnecessary cookstoves while ensuring an adequate supply.

Risks and challenges: The time and transportation costs associated with going to auction days are significant in the context of the narrow profit margins on the cookstoves. Most likely, the price will need to be increased slightly to compensate for transportation costs. Even so, retailers must be willing to confront a likely loss for the first 2-3 trips to a new auction. Once the market is primed and more cash is in the community, retailers could potentially sell in 1 auction day the same number of cookstoves they are currently selling in a month, but this is not without its risks.

Correctly estimating the number of cookstoves to bring may be tricky. The retailers will be reluctant to bring cookstoves that they cannot sell, incurring a transportation cost in both directions for the unsold cookstoves. Developing relationships locally where they can leave the cookstoves in stock between auctions could reduce this risk.

Additionally, although the auction day strategy does succeed in bringing the cookstoves closer to many people who currently do not have access to it, it does not entirely solve the transportation problem. Women attend the market from some distance away. If they are not selling in the market and therefore transporting goods, they are likely traveling on foot—in some cases for several kilometers and may face difficulties in transporting it.

Financing: Retailer-led individual savings box or “piggy bank” promotions

Barriers addressed: Information, cash constraints, reference price/confidence, present bias, self-control, lack of planning

Target Consumers: Women living in urban, peri-urban, small towns where cookstoves are currently being sold. As transportation and limited shopping radius remain barriers, this will not likely attract many women outside the current areas being serviced. However, these areas are not yet saturated. The boxes are likely to be especially popular with those women who have some small but fairly regular income such as those who are trading in markets or going to auctions to sell. However, these strategies may also work for women with less regular income or who are saving out of household money.

How it works: Retailers give out free savings boxes to people coming in to place an order for a cookstove. At the time of placing the order, the customer makes a pledge to complete her savings by a particular date. The customer is given a card to schedule and track her deposits. The retailer notes down the pledge date and places the cookstove on hold for the customer until that date. If the customer returns with her box by the pledged date, she is given the cookstove and a reward. If she doesn’t return, the cookstove is released back into inventory.

Process:

1. Retailers promote the offer through signs, posters, and radio.

2. Retailers give out free savings boxes or “piggy banks” to people coming in to place an order for a cookstove. These boxes can be very cheap as long as they provide people with a way of physically separating their money.
3. At the time of picking up the box, the customer should make a pledge for a date by which they will have finished saving. This date should be recorded by the retailer in a logbook and given to the customer on a card that contains a format that prompts the customer to plan for the deposits they will need to make to achieve their goal within the stated time frame. Ideally, the retailer should not only ask the customer to set a target date but also help them calculate a target weekly deposit amount that will allow them to stay on schedule.
4. A cookstove of the size that the customer wants should be “held” or reserved by the retailer until the commitment date to ensure its availability.
5. When the customer has finished saving, she brings her box to the retailer together with her commitment card or calendar to receive the cookstove. If the person’s commitment card shows that she made met her commitment deadline, in addition to the cookstove she should receive some kind of reward such as a small item or an invitation to a party for successful savers hosted by the retailer. If the customer does not meet her commitment deadline, she can still bring her box in and purchase the cookstove, but she will not receive the gift and takes the chance that the cookstove will not be immediately available as the one she had reserved will be released back into inventory after the commitment date has passed.

Why it works: Although the strategy does not address the issue of women’s limited shopping radius or access to transportation, it does encourage goal setting and savings. When coupled with advertisements and an educational push to let people know about the benefits of the cookstove, it can provide people with a step that they can take immediately toward accessing the cookstove. Research has shown that even though participants could access the money at any time for another purpose, the mental “earmarking” of these funds for a specific goal seemed to create a barrier that allowed them to resist using the funds for other purposes more successfully than those in the control who only set a mental goal but did not physically separate their money.¹⁰

Adding the feature of a commitment with a retailer combined with a card that can be used for planning and a reward for achieving the goal on time, should increase self-control and motivate more rapid achievement of the goal. A gift item as a reward would provide instant validation and gratification while a party invitation may have other benefits like status and affirmation as well as serving as a potential marketing tool if properly promoted and advertised.

These hypotheses are supported, at least in part, by findings by Fiorillo, Potok, and Wright who found that formalizing the commitment and stimulating planning improved achievement of savings goals and raised balances. This mode of savings fits well with the preferences of working women living in peri-urban areas or small towns who stated that they would prefer to save at home and approach the retailer only when they believed that they had accumulated enough money. These women did not want to waste time or money traveling to the retailer to make multiple installment payments with the retailer.

Risks and Challenges: The retailer will need to do a reasonably good job of recordkeeping and planning to make sure that s/he has enough cookstoves on hand to deliver immediately when people bring their boxes in and are ready to make the purchase. Delayed gratification can lead to discouragement and negative press.

¹⁰ In Dupas and Robinson’s experiment, providing people with a “safe box” in which to save toward health needs did increase savings significantly by 66-75 percent over the control group.

For people with low bargaining power or a lot of demands on their resources such as dependent women or people with large extended families, there is some risk of the money being taken by their husbands if it is displayed in a new box. For them, saving with a retailer or in another less accessible location may be preferred as the increased transaction costs are actually a benefit in that specific case, giving the person a way to resist demands on the money.¹¹

Financing: Targeting Savings Groups

Barriers addressed: Cash constraints, transportation, access to information and awareness, limited shopping radius, confidence/reference price, limited decision-making power/control over resources, self-control/preference for tangible, lack of planning and goal setting

Target Consumers: Small business women, occasional laborers, female heads of households, dependent women, and those living in peri-urban areas, small towns where the stove is not currently offered, and villages. These women tend to face more cash constraints than salaried women.

- Women outside the major urban centers where the stove is offered will value the convenience of the savings mechanism in their community and the option for delivery.
- It will be particularly beneficial for dependent women and those in smaller towns and villages who may be less mobile and less likely to travel to the retail shops where the cookstoves are offered.
- Savings groups may also be the best way to convert firewood users to the improved charcoal cookstoves as they provide both a forum for information sharing and peer pressure for change if some members of the group are convinced to make the change.

How it works:

1. *Identify and connect with savings groups.* Savings groups are extremely common in the East Acholi region and easy to find. Some techniques that retailers could use to identify and access savings groups include:
 - Ask current customers for referrals to their groups, possibly providing incentives for them to do so – particularly for high potential purchasers.
 - Use the radio or posters to advertise the special deal being offered to savings groups who come in and register with the retailer.
 - Provide information to pastors in churches to share with their groups. Consider organizing demonstrations and informational talks after church for the savings groups with the consent of the pastor.
 - Promote the special savings group deal at auction days letting people know that they can get the deal for their group if they register with the retailer that day.
 - Contact community leaders and provide them with free trial of the cookstove in exchange for help in facilitating contact with savings groups in that community and, potentially, assistance with delivery of information about the cookstove and benefits to the groups.
 - Contact NGOs and community-based organizations that are actively promoting and supporting savings groups. Ask to be put in contact with the chairperson of the groups in areas of interest. Offer to train the promoter on the cookstoves.
2. *Meet with and provide information to groups.* Once groups have been identified, the retailer, community leader or a current stove user speaks with the savings group to explain the benefits of the improved cookstove. They should be given use and care instructions at the same time. Particular emphasis should be paid delivering the following messages:

¹¹ See Simone Schaner, "The Cost of Convenience? Transaction Costs, Bargaining Power, and Savings Account Use in Kenya," 2013, https://poverty-action.org/sites/default/files/0_564_transaction_costs_bargaining_power_and_savings_account_use.pdf for more information about how bargaining power and transaction costs intersect.

- Saves time by burning hotter and cooking faster
- Uses little charcoal so that you only have to fill it with charcoal once or twice to cook a full meal
- Continues to heat and cook even after the fire is out
- Charcoal lasts longer meaning the charcoal you buy now for 1 month can be used for 2 months
- Helps you increase your savings because you are buying charcoal less frequently

3. *Agree on a financing and delivery strategy with the group.* After the presentation of the benefits, women should be given 1 week to decide whether or not they want to begin saving for the cookstove. This will allow them time to consult with their husbands, if they need to do so. The three different strategies described below are listed in order from most effective to least effective based on feedback from savings groups.

- **Financing and delivery strategy 1:**
 - The group should set up a separate pot for cookstove savings. The amount of the contribution should be set at such a level that based on the number of members who have opted in, 1 member can get a cookstove every week or every other week, depending on the group's savings capacity.
 - Ideally, cookstoves for all the members who have made the commitment should be delivered by the retailer to an easily accessible location by the time the group is ready to pick up and pay for the first cookstove. These could be left on consignment with a local retailer, the group president, or other trusted individual.
 - The group would either pay the consignee for each cookstove and the consignee would remit the money to the retailer stocking the cookstove or the group would remit the money directly to the retailer stocking the stove via mobile money and use their receipt to claim their stove.
- **Financing and delivery strategy 2:**
 - Women can choose to begin saving for the cookstoves in a separate designated fund tracked by the treasurer.
 - The women should make a commitment to save a certain amount each week toward the cookstove, ideally (but not necessarily) being given cards or passbooks where each installment is checked off as a visual reminder of progress toward their goal. The money should be kept in a separate box to make it easier to account for and ensure that it is available to make the purchase when enough has accumulated.
 - Once the schedule of installments is set, the group leader should contact the retailer to place an order for the correct number and size of cookstoves and to schedule delivery of the cookstoves for the group for the week following the meeting when the group will hit the 50 percent mark.
 - The money can be transferred to the retailer in advance through mobile money or it can be picked up by the retailer upon delivery. The retailer delivers the cookstoves for everyone who has saved 50 percent of the purchase price.
 - The group distributes the cookstoves and continues to save until the full purchase price has been collected at which time the money is transferred to the retailer via mobile money and the account is closed.
- **Financing and delivery strategy 3:**
 - If the retailer is unwilling to provide the stoves on credit, the procedure for strategy 2 should be followed with the variation that delivery is not scheduled until the full purchase price has been achieved.
 - In this option, the group may choose to finance its members to access the cookstove sooner by lending from the general fund, but it would be up to the group itself to decide whether to do this and when to schedule delivery.

Why it works: This strategy addresses a wide range of both practical and behavioral barriers.

- Among the practical barriers, savings groups are an effective way to raise awareness and make the case for investing in the improved cookstove. It is more cost effective for retailers to invest in informing a group about the benefits than to talk to customers one on one.
- If the retailer is introduced by someone trusted by the group such as another member, a pastor, or a community leader, it builds trust in the message as well.
- Because the retailer would visit the group to inform them and the cookstoves would be delivered to a pick-up point convenient for the group, it helps overcome the barriers related to transportation and women not shopping in shops as well.
- Plus, the group would know the price up front and have the confidence that if they save that amount, they will be able to purchase the stove.

When it comes to addressing behavioral barriers, the three strategies are organized from most powerful to least powerful, but all have elements that support purchasing the cookstove.

- Strategy 1 combines social commitment, credit, planning, and the delivery of a tangible product in the short-term. This option is modeled after an option tested by Dupas and Robinson for promoting investment in preventative health products like bed nets, water filters, and water chlorination products.¹² In the study, sixty-five percent of members opted into the scheme and investment in preventative health increased by 128-138 percent over the control group who received similar encouragement but no dedicated savings mechanism. Because deposits were required and the ability of other people to get the product was tied to each individual's fulfillment of her commitment to save the agreed amount weekly, the social cost of not fulfilling the commitment was quite high and likely provided needed reinforcement to self-control to resist temptation to spend money on other things and to overcome the cost of decreased liquidity for other purchases. The presence of a credit element (every person except the last person will get the product sooner than she would have if saving on her own) also makes the scheme more attractive for people with high levels of present bias by shortening wait time before payout. Furthermore, the delivery of a tangible product to a member each week can motivate others to stay with the saving scheme because they can observe—and potentially experience—the benefits of the product almost immediately rather than having it remain as an abstract concept until the group has finished paying and benefit from the cost savings making it easier for them to make their installments.
- Strategy 2 employs many of the same behavioral levers. In this option, as well, people are making a formal commitment to save. There is a limited-time opportunity to join the group saving process and get the stove delivered and for only 50 percent down which should help overcome present bias and motivate people to act now rather than later. All the group members get the cookstove sooner than they otherwise would, but they would all have to wait until everyone has reached the 50 percent deposit threshold. Therefore, the reinforcement or motivation of the product arriving in the community only days after the group begins saving is not there, so the immediacy is more muted in strategy 2 as compared to strategy 1. However, because of the retailer credit, it should still appeal to those with present bias. Once the cookstoves are delivered, however, the social pressure component is not as strong since no one's access to the cookstove will be affected if one person delays in making their required deposit or payment. The main difference is that in strategy 2, it is the retailer who is extending the credit rather than the group as in strategy 1. This is still fairly low risk for the retailer as

¹² In this study, of the four savings methods tested in the ROSCA savings group context in Kenya, the "health pot" mechanism had the strongest impact on investment in preventative health products. In this option, as in our proposed cookstove financing strategy 1, group members who were interested in purchasing a preventative health product could agree on which product to purchase and opt into a special "health pot" that was set up to allow the contributions of all members opting in to cover the purchase of 1 product each week. See Dupas and Robinson for full details of the study.

it is unlikely that the group will allow members to never pay back as this will impact the group's reputation negatively.

- Strategy 3 is a little bit weaker because it lacks an explicit credit component. It can still be engineered to work because, like the other strategies, it gives people an opportunity to act immediately upon hearing about the benefits of the cookstoves. By offering delivery and a guaranteed price, it still creates a modest amount of motivation to commit to purchasing now rather than later. People who are aware of their own present bias and self-control issues may also be motivated to join the group process to take advantage of the moral support of other members undertaking the same commitment. The strongest way to implement this option would be for group members to commit to a schedule of mandatory deposits that are monitored by the group treasurer. All members should follow the same payment plan so that delivery can be scheduled for all at once. Payment cards or passbooks could again be used to visually reinforce the commitment and progress toward the goal. The deadline of the scheduled delivery date coupled with mandatory deposits that are monitored by the group should still strengthen self-control by generating a feeling of loss if the person does not complete payments in time for delivery day.

Risks and challenges: For all the options, making contact with the groups requires an investment of time by the retailers. Although the pay-off is potentially large in terms of dramatically increasing the number of cookstoves sold, interviews with the retailers revealed that their mindset is more conducive to low investment low return strategies than a more entrepreneurial investment strategy like this one. Therefore, some work may need to be done to help retailers overcome their own cognitive biases or to seek out individuals with a more entrepreneurial mindset to prove out the viability of this strategy.

Risks and challenges by strategy include:

- Strategy 1: Delivery arrangements for the stoves may prove challenging, particularly for this strategy. In strategy 1, in order to take advantage of economies of scale when transporting the stoves, retailers will need to find someone with whom to leave the cookstoves while the group is working on paying for them one by one. The retailers' trust issues may be hard to overcome and they may be unwilling to leave the stoves in the community. Because the success of this option requires that the cookstoves be continuously available for purchase as the groups collect enough money to make the purchase, the lack of a convenient and reliable distribution point could bring the whole scheme to a halt.
- Strategy 2: With this strategy, the retailer bears the risk of delayed repayment after delivery. This can be partially mitigated by collecting payments after delivery every week instead of waiting until the full remaining 50 percent has been collected by the group, though this will raise transaction costs.
- Strategy 3: There is a significant risk that the group will not choose to enforce the mandatory deposits, and it will devolve into a more optional individual savings effort where the group provides a safe place to set money aside for this purpose, but for which there are no hard deadlines attached.

Getting the Word Out: Referral Coupon and Incentivizing Person-to-Person Recommendations

Barriers addressed: Lack of information, lack of reference price, present bias, price anchoring

Target consumers: This strategy will reach a broad spectrum of female consumer segments, but will be particularly effective at reaching women who lack the confidence to approach a retailer without knowing how much they should pay.

How it works:

1. *Process:* Retailers pre-print referral coupons to hand out to customers who buy the stove. When the referee is ready to buy the cookstove, s/he brings the coupon into the retailer and receives the guaranteed

price. The retailer offers the person who made the referral some kind of bonus or incentive the next time that s/he comes into the shop.

2. *Coupon appearance:*

- Coupons should feature a picture of the improved cookstove, list the prices and sizes available, and mention that it is hotter, cooks faster, and burns less charcoal than a regular stove – written in local language (Luo).
- Prices listed should be the “regular price” that is equivalent to the “first price” a retailer would tell someone inquiring about the cookstove as well as a special guaranteed “referral price” which should be equivalent to the “last price”—the minimum that the retailer would accept for a sale to the general public.
- The coupon should be time-limited to create a sense of urgency.
- The back of the coupon should have a place for the customer who is making the referral to include his or her name and contact details.

Why it works: Personal referrals are one of the best sources of information about products and often strongly motivate consumers to purchase. According to our research, not everyone prepares food in a visible place nor readily shares information about products in their home, limiting the spread of information about improved cookstoves and thus awareness and uptake.

As designed, customer referrals will get people talking and motivated to purchase for the following reasons:

1. People need motivation to start a conversation about their improved cookstoves. A coupon with a “special referral price” gives people something to talk to about.
2. An expiration date on the coupon encourages customers to make the purchase sooner rather than later. A timeframe, such as three months, is long enough for most people to be able to gather the money (according to their self-reported data) but it is not so far in the future that people feel they have a lot of time and do not need to act now.
3. Placing both the first price and the special discounted price on the coupon sets a reference and anchor price that is higher than the intended sale price. This creates a perception that the customer is getting a bargain while also letting the customer know exactly how much money they will need to gather to make the purchase.
4. A non-monetary thank-you gift from the retailer to incentivize customer referrals is a powerful motivational tool. It is important that this gift be non-monetary so as to keep this in the realm of favors and community service rather than being perceived as work by the person doing the referral.

Risks and challenges:

1. Non-monetary thank-you gifts must be low cost—a token of appreciation more than a real gift – to accommodate low profit-margins associated with improved cookstove sales.
2. The price listed must be the best price offered. If word gets around that other people are getting better prices, trust will be broken and the whole scheme may unravel. Currently, each customer negotiates for the price and these vary significantly. Throughout research, when customers learned that they had paid more than peers, they grew angry.
3. If the manufacturer’s price goes up, the referral price will have to rise as well. This could create some problems in adjusting the reference price. It also leaves the retailer slightly exposed as they will have to honor the referral coupon price when it may be insufficient to cover the manufacturer’s new price. This risk, however, should be kept to a manageable level by placing an expiration date that is only 3 months into the future.

Getting the Word Out: Radio Advertisements

Barriers Addressed: Lack of information, lack of a reference price, price anchoring, limited shopping radius

Target Consumers: Everyone, but it can be especially helpful for dependent women and women in villages who are less mobile and less likely to come to town, see the cookstove in a shop, and inquire about it. It also can be especially helpful for married women who need to gain the support of their husbands before making a purchase.

How it should work: Retailers should contract with local radio stations to broadcast talk shows and advertisements for the cookstoves. Both the talk shows and the advertisements should feature testimonials from users. Additionally, dramatizations of dialogues or stories told by users can be used in the advertisements. For examples built around real stories or combinations of stories told by interviewees during the research that show how a lot of key messages can be communicated through dialogue in a very short time.

These dialogues could be pre-recorded and played as advertisements. In addition to the dialogue, it is important to mention the following in every advertisement:

- Where the cookstoves can be purchased
- Phone number of the retailer(s)
- Name of the cookstove
- Prices

Advertisements should be in the local language and should be as natural sounding as possible. If the retailers are implementing any of the promotions described above, it would also be important to give details of those promotions during the advertisement. Both talk shows and advertisements should strive to communicate the following messages:

- The cookstove saves time by burning hotter, cooking faster, and using little charcoal.
- It uses 50 percent less charcoal than the built-in clay or metal stoves.
- It is easy to light and easy to clean.
- It makes little smoke and releases little ash so that the cooking area remains clean and you can cook inside on rainy days.
- The cookstove is built to last for 5 years with proper care. It comes with a manufacturer's guarantee to replace it if it breaks within one year and repair it for 5 years.

Radio spots are most likely to reach women when they are cooking. One woman suggested that 11am-1pm and 5-6pm would be the best times to target women.

Why it should work: Radio seems to reach many people. Both men and women of all ages and education levels reported having heard about the cookstoves on the radio. It is a good way to spread a few essential facts and messages broadly. Because the messages reach both men and women, it can help more dependent women bring up the topic if they hear the advertisement or talk show when they are together. It can also help raise men's awareness making them more receptive to their wives suggestions or efforts to buy the cookstove.

Real user stories and dialogues are likely to catch people's attention more than traditional advertisements and can build trust if the stories and dramatizations are natural and believable. People reported a high level of trust and confidence in the information that they received from the radio talk shows done in the past.

Risks and Challenges: Mostly, it is an issue of cost. One retailer indicated that he paid 100,000 UGX (roughly the equivalent of the profit on 45-50 cookstoves) to run an advertisement for 1 month. For this reason, it's unlikely to be utilized by retailers on their own. Further, radio alone is not sufficient. It needs to be paired with one or more of the other strategies to help overcome and reduce other barriers. It is not necessarily a worthwhile stand-alone investment, but coupled with another strategy, it can be a good investment.

Chapter 4

What works? Reaching Female
Improved Cookstove Consumers

Applied Research: Evaluating Strategies for Increasing Improved Cookstove Purchases among Female Consumers Groups

In this section, we evaluate the effectiveness of selected sales and marketing strategies toward increasing female consumers' willingness and capacity to purchase improved cookstoves in East Acholi.

Research Overview

From September 8-November 21, 2014, Mercy Corps led an 11-week investigation into the capacity of targeted sales and marketing strategies to increase improved cookstove purchases among female consumers in East Acholi. Prior to this, Mercy Corps undertook consumer research to better detail factors that both motivate and inhibit improved cookstove purchase across different female consumer groups in East Acholi in July 2014. The research team then designed sales and marketing strategies that could be employed by area cookstove resellers to target motivations and to address barriers to purchase. From these, the research team selected four core strategies to test. These are listed below but delineated and evaluated in further detail in the Strategies Evaluated section that follows.

1. **Messaging targeted to female consumers**

Limited understanding and awareness of improved cookstove benefits, availability and costs emerged as the biggest barriers to improved cookstove purchase among female consumers. Tactics tested included: messaging oriented to female interests, price references, and testimonials and radio.

2. **Establishing points of sale in places where women frequent**

The team hypothesized that establishing cookstove sales points in places where women visit often and do so comfortably would help to overcome limited information, shopping radius and transportation challenges, enabling women's increased purchase. With this in mind, the team targeted market-based resellers to test the impact of expanded points of sale in places frequented by women on women's improved cookstove purchase, including main market settings.

3. **Incentivizing person-to-person recommendations with referral coupons**

Personal referrals are a primary source of information about products and often motivate consumers to purchase products or services. At the same time, though, many purchasers fail to readily share information about their experience with improved cookstoves, limiting the spread of information about the product and thus awareness and uptake. With this in mind, Mercy Corps devised referral coupons designed to encourage the spread of information about improved cookstoves and to prompt purchase.

4. **Leveraging savings groups**

Access to ready cash is a challenge for many women, particularly those in rural settings and with seasonal agriculture as a main source of income. Failure to budget and to save earnings for targeted purposes also often inhibits consumers in the sub-region. Savings groups and meetings are both an important opportunity for women to save earnings for targeted goals as well as an opportunity for information to spread. Though our applied research phase did not explicitly test savings group targeting, it did try to incorporate this strategy where possible.

Research Boundaries

The sales and marketing strategies that were chosen for testing during our applied research phase were guided by two main boundaries.

First, the 11-week applied research period limited the consumer groups that could feasibly be reached and thus the sales and marketing strategies that could be tested viably. Our research indicated that urban-based, female charcoal users with some independent source of income were a high-potential and, to date, overlooked and poorly-targeted consumer group in East Acholi. These consumers are also easier and less costly to reach for improved cookstove suppliers, distributors, resellers and sales agents within East Acholi and throughout Uganda, increasing the likelihood that those tactics that proved effective during testing would be sustained and scaled following the close of research. Strategies tested, then, targeted consumers that belong to this segment.

Our research also indicated that though willing to pay and capable of purchase, low income, rural, and agriculturally-dependent women as well as women with limited decision-making power within their household would need some time to prepare for cookstove purchase. The short applied research period was not sufficient enough in length to allow for enough sales to these consumer groups to offer definitive information on the success and failings of applied strategies.

Second, Mercy Corps' improved cookstove programming in northern Uganda is facilitative in nature. We offer targeted support to local and national private sector cookstove players to address gaps that limit the emergence of a highly functional market system, rather than intervening directly. Sales and marketing strategies tested were strategies that could be led by our private sector partners throughout the research and, if successful, carried forward by them after the close of our programming. Strategies were designed to be simple and straightforward accordingly.

Research Methods

Testing was carried out in partnership with five East Acholi-based improved cookstove resellers and distributors. Partners were chosen based on their prior sales performance as well as their willingness and capacity to take on new sales and marketing strategies. Partners were based in one of five major trading centers in East Acholi: Kitgum Town Council, Pader Town Council, Patongo, and Kalongo – where sales took place.

Mercy Corps hired “sales agents” for the duration of the testing whose primary job was to collect sales data, to coordinate between sales points, to ensure consistency of message, and to troubleshoot. Mercy Corps also recruited sales outlets within major markets and provided an incentive for their support. Outlets were chosen for their locations as well as their operators' positions of leadership and authority within the market. Sales agents, market-based outlets and shop outlets were all trained by Mercy Corps for consistency of message and accuracy of data collection. All were closely supervised by a Mercy Corps team member. Data collection was closely monitored and checked for accuracy.

Throughout the applied research, customer information was collected at time of purchase and monitored weekly. At the end of the applied research phase, a statistically-significant number of randomly-selected purchasers were interviewed for a longer, more in-depth survey. The end survey was designed to provide greater insight into respondent's consumer profile, motivations and barriers to purchase, and intra-household decision-making surrounding cookstove purchase – offering insight into the efficacy of each sales or marketing strategy toward the adopter's capacity and capability to purchase. In total, 290 people purchased improved cookstoves during the 11-week research period. Of these, all were interviewed at time of purchase, while 147 were interviewed for follow-on questioning. Finally, in addition to the purchaser surveys, retail partners, supply partners, sales points, sales agents, and some purchasers also participated in in-depth interviews following the close of the applied research period.

Throughout the research, data was collected by trained sales agents and enumerators, and closely monitored by a Mercy Corps team member. Interviews were conducted by Mercy Corps' GACC/WEF Program Director, who also oversaw data collection. She is responsible for the findings within this report.

Research Challenges

Working through local partners and systems, rather than independently and directly, affords benefits as well as challenges. Beneficially, the cost of implementation and testing is low, and strategies tested are more likely to be carried forward by partners at the close of programming. At the same time, however, testing is limited by partner capacity and interest. This did emerge as a challenge throughout the applied research phase.

First, inventory shortfalls challenged the research throughout. Early on, Mercy Corps stepped in to coordinate orders and support transportation costs to ensure improved cookstove supply for the research. Further, throughout the research, Mercy Corps did help to move inventory from one reseller to another to help to smooth supply. At no point did Mercy Corps subsidize product costs; investments in inventory were resellers' alone. However, at the onset, several resellers were without inventory for several weeks. Later on in the research, most resellers ran out of particular sizes of stock. Finally, towards the end of the applied research phase, product had moved so fast that inventory was again absent across multiple retail locations. Inconsistent, unprofessional and poorly managed supply limits the availability of cookstoves in East Acholi. It also challenged the research, likely resulting in fewer sales than may have transpired otherwise.

Second, reseller interest also challenged the research. At the start, resellers did not value investment in strategies brought forth by Mercy Corps and did not invest as readily and as easily as we would have hoped. As a result, some strategies were slow to get off the ground or challenged in their consistency. For example, resellers were reluctant to move product from their shops to markets and would not pay for transportation to get them there. Mercy Corps again stepped in here, providing transportation and instructing sales agents to help out. As sales in markets and outlets increased, however, resellers came to support transportation and even commissions for these points of sale. Slow early investment in the strategies tested also likely limited total sales during this period.

Third, sales agents and sales points were hired or secured to support the research, helping to track sales and customer data as well as to coordinate testing. However, many were much more influential than anticipated, playing a critical role in overall sales. At the same time, not all sales points and sales agents worked out. Sales agent influence was not a critical research question, but did emerge as an important finding. Sales agent influence likely affected higher sales throughout the applied research period.

Strategies Evaluated: What Worked and What Did Not

In total, 290 improved cookstoves were sold during the 11-week research period. On average, 26.4 improved cookstoves sold each week, equaling a 49.2 percent increase in weekly sales volumes over the previous year. Among resellers that participated fully in both market and shop-based sales, 78 percent of sales were to women and 22 percent of sales were to men, amounting to a 33.3 percent increase in the percentage of female purchases over the previous year.¹³

¹³ In October 2013-January 2014, Mercy Corps supported an 18-week sales campaign in partnership with Impact Carbon for the same Energy Uganda Foundation cookstove promoted here. Detailed sales records from this campaign enable us to compare data with that of the applied research period. During this time, improved cookstove sales averaged 17.7 per week. Moreover, females accounted for 58.5 percent of sales while males accounted for 41.5 percent of sales.

The following section details the sales, marketing, and financing strategies tested throughout the applied research period. For each of the four major strategies, the details of the tactics tested are first outlined, followed by quantitative and qualitative information that together help to account for which strategies may have led to increased sales and female purchasers. Importantly, while data does offer insight into the effectiveness of each individual tactic and strategy tested, no single tactic or strategy can be evaluated without weighing the others. Tactics were applied in tandem to maximize overall effectiveness.

Throughout the applied research period and with targeted marketing and sales strategies in place, weekly sales volumes shot up by almost 50 percent when compared to the previous year's sales rates. Moreover, women accounted for a full 33 percent more of all purchases.

1. Messaging targeted to female consumers

Limited understanding and awareness of improved cookstove benefits, availability and costs emerged as the biggest barrier to improved cookstove purchase among East Acholi female consumers during our consumer level research. Accordingly, Mercy Corps tested three sales and marketing tactics designed to overcome information gaps that most inhibited female improved cookstove purchase: messaging oriented to female interests, price references, and customer testimonials.

Messaging oriented to female interests

Overview

Consumer research indicated that women and men appreciate different benefits associated with improved cookstove use. Men expressed the greatest appreciation for the cost savings associated with reduced charcoal use while women expressed most appreciation for time-saving benefits. Accordingly, applied research prioritized messages that touched on cooking fast, hotter heat, and reduced charcoal requirements for each meal first, and messages that touched on monetary savings second. Seven total benefits associated with improved cookstove use were promoted throughout the research. These included: heats and cooks fast, saves time, saves money, uses less charcoal, durable, clean, and portable.

All marketing material, including signs, coupons, radio testimonials, sales agent and reseller messaging, was directed to focus first on benefits that appealed most to women and, second, on benefits that appealed to men. Signs listed seven total benefits in the following order: heats and cooks fast, saves time, saves money, uses less charcoal, durable, clean, and portable.

Results

Messaging that speaks to time-savings interests appears to have motivated a wider spectrum of purchasers than in previous campaigns that did not feature time-savings messages.

Those that purchased improved cookstoves during the applied research period were asked to identify the improved cookstove benefits that most attracted their purchase both at the time of purchase and also several weeks or months following their purchase. Both self-reported results offer insight into which types of messaging most motivated purchase. Fast heating and cooking as well as charcoal savings are most important to both male and female consumers. However, in time and with stove use, consumer product appreciation changed.

At time of purchase, 52 percent of improved cookstove buyers stated that they were motivated to purchase the improved cookstove because it used less charcoal than their current cooking method. Following reduced charcoal use, 28 percent of purchasers indicated that they were attracted by fast heating and cooking, 8

percent by saving money, 4 percent by the stove's cleanliness (collects ash), and 2 percent each by listed price, portability, durability, and time-savings characteristics.

Interestingly, in the follow-on consumer survey, the motivations that respondents identified for purchase changed. Fast heating and cooking accounted for 33 percent of motivations to purchase, reduced charcoal use for 29 percent, saving money for 12 percent, cleanliness for 12 percent, times-savings for 6 percent, durability for 4 percent, and portability for 3 percent.

Motivations for purchase did not appear to differ between sexes. Among male purchasers, the following three benefits were most cited: 51 percent were attracted by reduced charcoal use, 24 percent by faster heating and cooking, and 10 percent by saving money. Among female purchasers, the same top three benefits were most cited: 53 percent were attracted by reduced charcoal use, 29 percent by faster heating and cooking, and 7 percent by saving money. However, our in-depth consumer research indicated that men and women think about reduced charcoal use differently. Specifically, women associated reduced charcoal consumption with faster cooking and less time tending to the fire while cooking. Men, on the other hand, think of reduced charcoal use in terms of reduced frequency for charcoal purchase. This is a critical distinction that should be heeded by resellers and distributors when messaging in the future. Currently, most marketing speaks primarily to monetary benefits associated with improved cookstove use that, while may attract purchases from males, is less likely to attract purchases from females.

Prior to the applied research period and over the last two years, messaging focused on monetary and charcoal savings, not time-savings benefits associated with improved cookstove purchase – like heats and cooks fast, saves time, clean, or portable. In a short improved cookstove purchaser profile conducted one year prior to this evaluation, 86 percent of respondents indicated that charcoal savings was their primary reason for purchase.¹⁴ Adapted messaging applied throughout the most recent research phase and the wider variety of motivations for purchase highlighted, indicate that consumers were drawn to purchase by a different array of product benefits than previously.

Price References

Overview

Nonexistent price references, when combined with women's limited capability and confidence to purchase larger goods, emerged as an important barrier for women's improved cookstove purchase. East Acholi female consumers are afraid of overpaying for goods and can be so intimidated by products that appear to be expensive, like improved cookstoves, that they will not even initiate a conversation with sales staff when interested.

The program hypothesized that posting price range information widely would boost women's confidence in their capability to purchase, translating to higher sales overall. To test this, all marketing material (signs, posters, referral coupons, radio adverts) offered a price range of UGX 18,000 – 28,000 for all sizes of the cookstove. The range was deliberate, allowing for the space to negotiate and to offer discounts. In most cases, the retailers' "last price" for a size one stove was UGX 17,000.

Results

Qualitative feedback indicates that price references boosted consumer confidence while still allowing space for price negotiation that is important to both resellers and consumers in East Acholi.

¹⁴ *Improved Cookstove Users, East Acholi*. Kim Beevers. USAID-funded Healthy Practices, Strong Communities Program, 2014.

According to post-purchase responses, 61 percent of purchasers knew the price of the cookstove before they made the purchase, while 38 percent of purchasers learned the price only at the time of negotiation with a sales representative. Of those purchasers that knew the price in advance, 26 percent learned about the price from a salesperson when they asked for the price, 20 percent saw the price listed on a poster, and 15 percent learned of the price from someone who had already purchased the cookstove.

Though it's difficult to conclude the amount of influence that price references had toward the total number of purchases, qualitative discussions with purchasers, resellers and sales agents indicate that transparent pricing did boost consumer confidence and overall sales. Sales representatives all stated that price ranges gave consumers confidence in their ability to purchase and the information they needed to be able to save for the stove. According to one long-time Pader-based reseller, "some people come with the exact amount of cash without even asking the price because they know it already." Further, according to another Patongo-based reseller, "posting the prices helped [the customers] to get their money ready. Those that saw the poster came with the money ready; those that didn't, needed to negotiate."

Prior to the applied research phase, prices for improved cookstoves were not posted at any sales location within East Acholi, as is the norm across all product and service offerings within the sub-region. Resellers were at first reluctant to participate in price posting. However, during the evaluation, resellers indicated that the price references made a difference in their sales and that they were not only happy to continue posting them for cookstoves but would also use price posting for other products that they offer. Resellers indicated that price ranges, rather than a single, final price, gave them the space to negotiate as they would otherwise and resulted in increased sales.

One clear challenge and risk associated with posting prices did emerge. Consumers are especially sensitive to price changes, if not necessarily the price itself. Over the course of two years, cookstove prices have risen from UGX 15,000 to UGX 16,000 to UGX 17,000 or 18,000 for size one stoves. According to resellers, each increase was met by a large drop in sales and consumer indignation. In areas where the stove was first sold for UGX 15,000 nearly two years ago, resellers report that consumers still demand this price and complain that the additional UGX 2,000 is too much to shoulder. However, in areas where the cookstove was first sold for UGX 17,000 and is still sold for this amount, resellers and sales points report that customers do not complain that the price is too much. In other words, it is not likely that the total cost challenges consumers as much as their perception that they're not being offered the best price.

Overall, price references seem to boost consumer confidence. When applied, however, price ranges rather than single prices should be utilized. Moreover, when opening new areas for resale or bringing new products to market, careful attention should be made to initial price points to avoid later price spoilage.

Testimonials and Radio

Overview

Research indicated that East Acholi consumers appreciate communication most in the forms of testimonials, dramatizations and dialogues. Further, use of these modes of communication is effective over radio and reaches a large swath of the population, across sexes. Many East Acholi women are restricted in movement and interaction. This is particularly the case for more rural consumers as well as those who are dependent on their spouse for income. Despite minimal movement and opportunities for socialization, these consumers do own radios and do listen to them frequently.

During the applied research period, two, 30-minute radio "talk shows" were undertaken at each of the two major radio stations in East Acholi. Both played at peak listening hours in the evening, at a time people are

finished with work and at home, right before the popular news hour, when women typically prepare any evening meals.

The talk show featured a semi-structure dialogue between a radio announcer, female cookstove purchaser/user, and a local cookstove reseller. The female cookstove user was asked to discuss her experience with the stove, highlighting benefits that would appeal to other women, as well as price references for each of the three cookstove sizes. Sales locations, including the newly-established market sales points, were also listed. Contact information was given for resellers, sales points, and sales agents for each participating location. The audience was given an opportunity to call in to discuss the cookstoves or to ask questions; half of the 14 total callers discussed questions on air.

Results

A small percentage of purchasers suggested that the radio was the means through which they first learned of improved cookstoves and does not appear to have motivated consumers significantly. However, testimonials themselves were likely very effective.

All sales agents and points of sale owned and utilized improved cookstoves and all indicated that their personal experience enabled them to persuade consumers to purchase. They used their own testimonials as a core sales tactic. In fact, several sales agents indicated that their own adoption and use of the cookstove was critical to their capacity to sell. According to a Kitgum-based sales agent, when she did not own a cookstove in the beginning, customers would ask her, “how can you expect me to buy a stove when you yourself do not even own one? How can you ask me to trust you?” Heeding her customers’ suggestion, this sales agent purchased a stove. Afterward, she said she felt as if she was able to speak to the benefits of the stove more authentically and to better address her customer’s questions and concerns. This was a turning point in her sales. All sales agents told a similar story – indeed all purchasing their own cookstoves early on in their contracts. The role of sales agents is discussed in greater detail in follow-on sections.

The small number of radio shows makes it difficult to assess their role. Moreover, radio itself was a mechanism hypothesized to reach more rural or homebound females. The boundaries of the research phase – particularly the short period of testing – did not lend itself to targeting this group, which was not a core consumer group targeted during research.

However, the cost of these two radio talk shows is noteworthy. Amounting to about UGX 700,000 and resulting in seemingly few sales, raises doubts for their overall value. It’s unlikely that small, low-margin cookstove businesses would invest in similar programming in the future.

2. Establishing points of sale where women frequent

Overview

The team hypothesized that establishing cookstove sales points in places where women visit often and do so comfortably would help to overcome limited information, shopping radius and transportation challenges, enabling women’s increased purchase. Prior to the research, cookstoves could only be found in shops located in town centers. However, most women visited shops only to make a specific purchase. Women also indicated that they were intimidated by shops.

According to our consumer research, most women typically visit main markets at least once in a week. These women are also urban-based and often earning some income, indicating that they are probably also charcoal users and especially time-constrained. Further, markets themselves are highly populated with women who belong to this consumer group.

With this in mind, the team targeted market-based resellers to test the impact of expanded points of sale in places frequented by women on women's improved cookstove purchase. Sales points were established with female vegetable and commodity resellers in major markets in each of the four town centers. Resellers were also leaders within the market communities. These included two resellers in Kitgum Main Market, and one each in Kitgum Ayul Market, Pader Main Market, Kalongo Main Market, and Patongo Main Market.

Sales points were all equipped with signs (explained above) as well as several cookstoves to sell on consignment. Resellers were each given a cookstove to use at the market to familiarize themselves with the product. They were also trained to discuss cookstove benefits that motivate women, specifically. As an incentive, each reseller was told that if they performed well, they would be able to keep the cookstove.

Results

Multiple sales points and targeted improved cookstove placements, particularly in main markets in town centers, resulted in increased sales and increased sales to women in particular.

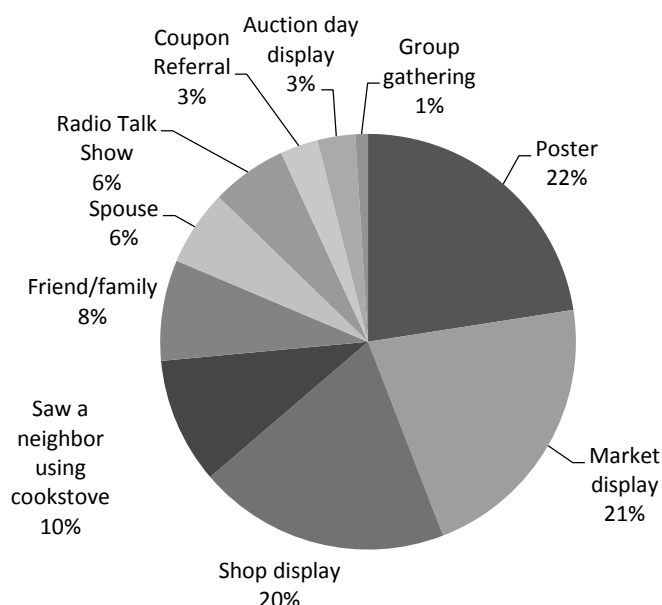
Among resellers that participated fully in both market and shop-based sales, 78 percent of sales were to women and 22 percent of sales were to men. Out of these, 61 percent of sales transpired in a market and 39 percent in a shop. Of those in the market, 90 percent were to women and 10 percent were to men. Of those in the shop, 60 percent were to women and 40 percent to men.

Post purchase surveys indicated that improved cookstove purchasers learned about the availability and benefits of the cookstove from a wide variety of sources. Customer surveys at time of purchase indicated that posters and physical cookstove displays in both markets and shops accounted for 63 percent of first learning.

Sales points located in shops and markets as well as posters that were placed around sales points and other highly-trafficked locales reached males and females alike with improved cookstove information most often. However, there are distinctions between sexes. Of male purchasers, 31 percent learned of the stoves from a poster, 27 percent from a shop sales point, and 10 percent from a market sales point. Of female purchasers, on the other hand, 27 percent learned of the stoves from a market sales point, 19 percent from a poster, 16 percent from a shop sales point, and 12 percent from seeing a neighbor using the stove.

Gender disaggregated distinctions outlined here offer insight into the effectiveness of strategies tested. To some extent, learning mirrors gender disaggregated shopping patterns hypothesized during our earlier consumer research. Most women typically visited main markets at least once in a week and markets themselves were highly populated with women who trade in foodstuffs and other goods and that also belong to the targeted consumer group. Men, though, visited shops more often than markets. These differences

Methods by which purchasers first learned of the improved cookstove



highlight a critical research question: will establishing sales points in areas more frequented by women result in increased purchase among female consumers?

Multiple sales points and targeted product placements played a critical role in reaching higher numbers of people and resulted in higher overall sales, especially to women. Employing sales points throughout larger markets was particularly effective. Of respondents, 91 percent visit the market at least once in a week, including 78 percent of male purchasers and 97 percent of female purchasers. Further, 54 percent of purchasers travel to the market daily, with 70 percent of women visiting the market daily and 20 percent of men doing the same. Moreover, 21 percent of purchasers visit the market several times a week, including 13 percent of women and 38 percent of men, with 16 percent of purchasers visiting the market at least once in a week.

Unlike main markets, auction days did not attract many purchasers with 85 percent of purchasers “almost never” visiting such markets. This is not a surprise; auction days are offered most often in rural areas and attract rural populations. Those that purchased improved cookstoves are overwhelmingly urban-based. Auction days may still present an important opportunity to reach rural groups. However, with such geographically segregated consumer reach, tailored strategies for rural customers that do visit auction days should be employed there to maximize effectiveness. Note, the strategies tested during our applied research phase did not explicitly target these rural consumer groups; other strategies would be more effective at doing so.

In addition to markets and auction days, purchasers were also asked to identify the frequency of visit to shops in the center of town. Here, 99 percent of purchasers stated that they visit shops in the center of town at least once in a week. However, follow-on research indicates that they are focused visits, where specific items in mind result in visits to targeted shops alone. Consumers do not wander from shop to shop.

Furthermore, ease of access to sales points was ranked most important by improved cookstove purchasers. When asked why they chose to purchase the improved cookstove from the location that they did, 53 percent of respondents indicated that it was easy to access, 26 percent stated that the location was close to home, 11 percent indicated that the location was convenient, and 7 percent highlighted that the sales point person was a personal relation.

Not only was ease of access to improved cookstoves important to purchasers, but awareness also seems to be framed by ease of access. Of respondents, 56 percent did not know that the improved cookstove was available at any other sales point than the one from which they purchased. Men seemed to be less aware than women, with 67 percent unaware of other point of sale options to 43 percent of women.

3. Incentivizing person-to-person recommendations with referral coupons

Overview

Our consumer research indicated that personal referrals are a primary source of information about products and often strongly motivate consumers to purchase. At the same time, though, not everyone readily shares information about improved cookstoves, limiting the spread of information about the product and thus awareness and uptake.

Referral coupons designed to encourage the spread of information about improved cookstoves and to prompt purchase were selected for investigation.

Local language “coupons” (small fliers) were designed with pictures and messages about improved cookstoves that appeal to women. Some were also printed with a reference price range. All had a space where the purchaser/referral person’s name was to be written.

Coupons were left with sales agents, resellers and owners in market and shop points of sale. Each was carefully instructed to give five coupons to improved cookstove purchasers after writing the purchaser’s name on the coupon. They were also instructed to tell purchasers that if they were to give the coupons to people who purchased, then they would be given a packet of salt for each sale. The reward was intentionally small, designed to be undertaken by local cookstove resellers at the close of GACC/WEF research if the strategy was successful.

Results

Referral coupons were widely misused and ineffective as a result. Referrals, on the other hand, appear to play an important role in sales and more so for women than men.

As indicated in the chart in the previous section, referral coupons accounted for very little (3 percent) of purchasers’ decision to buy an improved cookstove. Referral coupons did not work out as planned. This may be due to mixed understanding, value and motivations of sales agents and resellers tasked with employing them. When asked to explain referral coupons, nearly all sales representatives were able to articulate the expected process clearly. Though, no customer was able to do the same.

Only 48 percent of purchasers were given referral coupons. Many of these were told the referral coupon was a receipt. Those that were told to share the coupon with others were not told that a reward would be involved if someone were to purchase an improved cookstove using the coupon. No one who gave a referral coupon to someone who actually purchased the cookstove received a reward; almost everyone indicated that this was because they had no idea that a reward was attached to the coupon in any way.

For these reasons, we are not able to speak to the effectiveness of coupon referral as a tactic for encouraging person-to-person recommendations. We are, though, able to draw conclusions about their effectiveness as a tool. Sales partners did not value referral coupons and/or the reward attached to their use. They were also unable to explain their purpose to consumers clearly. This speaks to the practicality of referral coupons as a tactic; it may have been too complicated and not valuable enough. Moreover, it is unlikely that distributors would be able to match the volume of oversight and support that Mercy Corps provided during applied research. If coupons were used incorrectly here, they are not likely to be used correctly when less support is provided.

Informal referrals, however, seem to have been highly impactful. Customers spoke to an average of four people each about their improved cookstove, with just under half of these committing to a purchase themselves. While referral coupons may have failed, referrals themselves were instrumental.

4. Leveraging savings groups

Overview

Earlier consumer research indicated that access to capital for consumers was not as big of a challenge as earlier hypothesized. We found that nearly all consumers were capable of saving for purchase; rather, other barriers proved more inhibiting. Still, access to ready cash is a challenge for some women, particularly those in rural settings and with seasonal agriculture as a main source of income. Failure to budget and to save earnings for targeted purposes also often plagued a lot of consumers interviewed.

Most women in East Acholi belong to a savings group comprised of about 30 women who meet about once a week on average. Savings groups and meetings are both an important opportunity for women to save earnings for targeted goals as well as an opportunity for information to spread. For retailers, they offer access to a large group of women at once that are holding each other accountable for savings and spending.

Though our applied research phase did not explicitly test savings group targeting, it did try to incorporate this strategy where possible. Specifically, sales agents were instructed to target women's savings groups and to encourage them to save together toward the purchase of an improved cookstove.

Results

Financial capability was not a major hurdle for improved cookstove purchases. Savings groups that were self-organized around cookstove purchase did help some women to manage their savings and to achieve the improved cookstove purchase. Scalability, though, is questionable.

Among purchases, 84 percent were made with a single cash payment. Some flexible payment did occur: 16 percent of purchasers paid for the cookstove through installment payments, all were women and all completed payment within three weeks.¹⁵ Further, 20 percent of purchasers needed to save money in order to make their improved cookstove purchase. Of these, 93 percent were women, 85 percent of whom saved over a 1-14 day period to be able to make their purchase. Finally, though just over a third of purchasers belonged to a savings group, only four purchased the improved cookstove with a loan from their savings group.

With respect to finances, behavioral challenges proved more inhibiting. Those that purchased improved cookstoves seem to have done so with relative financial ease. Savings discipline and spending restraint, according to interviewees, were bigger challenges to their improved cookstove purchase. According to one savings group participant, "To save UGX 1-2,000 in my own pocket is not good because I can use it. It goes fast." Some successfully mitigated these challenges by saving together in self-organized groups daily, where money was held by a trusted group member until the required purchase amount was collected.

Sales agents did help to encourage women to organize into savings groups. In Kitgum, one of the sales agents planted the idea with women in the market and seems to have started a saving-for-improved-cookstove-purchase craze. However, the woman who held the money for women in the market started to demand compensation and some conflict did arise. Self-organized groups may be an effective tactic for mitigating behavioral savings challenges. However, a sales agent or someone else who is incentivized to encourage grouping and to manage orders and delivery will be required. This will be a barrier to the use of the strategy widely.

Sales Agents

Sales agents played a critical but unanticipated role toward pushing and testing sales and marketing strategies. They were a potent force, pushing information, offering testimonials, and providing referrals that resulted in significant sales – especially to women. Though unplanned, sales agents reinforced many of the strategies tested and offer greater insight into the value of an informed, dedicated sales team.

Sales agents were hired to work in close partnership with each of the five participating retail collaborators. At some time surrounding their improved cookstove purchase, 79 percent of all purchasers interacted with a

¹⁵ Reported payment methods differed between point of purchase surveys and after purchase surveys. We chose to employ point of purchase responses; payment records recorded at time of purchase and via a salesperson likely more accurately captured methods of payment, particularly when weighing negative social stigma associated with borrowing that influence respondent answers.

sales agent. Broken down by sex, 84 percent of female purchasers and 69 percent of male purchasers interacted with a sales agent.

When asked to describe the level of influence that a sales agent had over the purchaser's decision to buy an improved cookstove, 98 percent of those that interacted with a sales agent at any time surrounding their purchase indicated that the sales agent was moderately to highly influential – with 54 percent selecting “very influential.” Only 3 percent of those that interacted with the sales agent indicated that the sales agent was not influential in their decision to purchase an improved cookstove.

Of those purchasers that interacted with a sales agent, 60 percent did so at time of purchase, while 27 percent did so prior to purchase but at the point of sale. Further, 10 percent of purchasers interacted with the sales agent at a group gathering, while 4 percent interacted with the sales agent prior to purchase but not at the point of sale. Most men who interacted with a sales agent did so at time of purchase (77 percent). Most women interacted with a sales agent at time of purchase (53 percent), or before the time of purchase but at the point of sale (31 percent).

Sales agents were not an explicit component of our testing, but rather a mechanism through which to share information, to coordinate purchase and delivery, and to collect accurate sales data. However, our quantitative data makes clear the high level of influence sales agents had toward cookstove purchases. Moreover, qualitative discussions with resellers, sales points and sales agents themselves also indicated that sales agents played a huge role in sharing information and in managing end user recruitment and sales.

No reseller employed dedicated sales agents nor offered commission to anyone who made a cookstove sale possible prior to the applied research phase. During our earlier consumer research, resellers indicated that the low profit margin afforded through each cookstove sale was not enough to afford additional sales layers. None were interested in working with additional sales staff. At the end of the applied research phase, however, resellers articulated a critical mindset and investment shift. Almost all valued the sales agent and recognized their role in increased cookstove sales. They also indicated that they would be happy to continue to work with the sales agent on their own, without Mercy Corps' continued financial support. Resellers generally outlined a plan for paying commission on sales, with commissions ranging from UGX 1,000 to UGX 3,000 per stove, depending on the sale price. Two resellers had already begun negotiations with sales agents at time of research and four others were planning to negotiate. Only one reseller did not plan to work with a sales agent going forward; this reseller was less involved with the day-to-day business and generally unaware of the role the sales agent played toward total sales.

Likewise, sales agents were also keen to continue their arrangements. Though both resellers and sales agents indicated that UGX 1,000 commission would not be enough compensation to work for at the start of our applied research phase, at the end, all five sales agents hired indicated that they would work for UGX 1-2,000 commission going forward. One Kitgum-based agent summed up the group's sentiment best with, “I cannot refuse to make money.” Interestingly, more than one requested to receive commission as a lump sum at the end of the month rather than on a per sale basis, indicating that it would help them to manage their use of the income best. This is consistent with what we know of behavioral savings challenges highlighted previously.

Overall, employing sales agents on a commission basis is one of the major recommendations of our research. They played a critical role in information dissemination, group formation, product movement and delivery, and end user sales. Though Mercy Corps did provide some targets that were linked to compensation, much of the activity – particularly group formation – was done of their own accord and imagination.

Importantly, all sales agents employed were women. This was purposeful; Mercy Corps recruited female sales agents believing that they would better reach female consumers. Clearly, female sales agents did help to

target female consumers. Women reached women better; they shared similar concerns and similar motivations. Female sales agents also knew where to find women and were able to reach them more easily, avoiding any cultural challenges with comingling that may have arisen had they been male sales staff.

Purchaser Profile

In addition to the relative effectiveness of each tactic and strategy employed, we investigated the role of all tried concurrently toward increasing female improved cookstove purchase broadly and that among our target consumer groups specifically.

The following section details characteristics among consumers that purchased an improved cookstove during our applied research phase, highlighting both the consumer groups reached and those that were not.

Sex

Women purchased 70 percent of improved cookstoves.	Of the 290 people who purchased improved cookstoves during the 11-week applied research phase, 70 percent were women. Among resellers that participated fully in both market and shop-based sales, 78 percent of sales were to women.
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Geography: Urban, Peri-Urban, or Rural Living

Over 90 percent of all purchasers lived in urban or peri-urban locales.	<p>In total, 71 percent of purchasers lived in an urban setting, while 23 percent of purchasers lived in a peri-urban setting, or about 1-3 kilometers from an urban trading center. Only 5 percent of purchasers lived in a small trading center while just 2 percent lived in a village or rural area.</p> <p>Residents from Kitgum Town Council, the largest urban area in East Acholi and where two resellers and seven points of sale operated, accounted for 53 percent of sales alone.</p> <p>Women comprised 68 percent of purchasers in urban and peri-urban areas, but 92 percent of those from small trading centers and 80 percent of those from rural areas. Sample sizes are small for small trading center and rural purchasers, however.</p>
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Fuel Use

Purchasers overwhelmingly utilized charcoal fuel prior to purchase.	<p>About 93 percent of purchasers were solely charcoal users prior to their improved cookstove purchase.</p> <p>Only 2 percent of purchasers relied on firewood and 3 percent of purchasers relied on a combination of charcoal and firewood prior to purchase.</p>
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Income Sources

Most purchasers are independent income earners and contribute most to their household's income.	<p>About 76 percent of purchasers have an independent source of income. About 38 percent of purchasers derive their income from salaried employment and another 38 percent rely on income from their own small business. Only 7 percent of purchasers rely on agriculture for income. However, 16 percent of purchasers are dependent on their spouse for</p>
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income – without an independent source of income of their own.

Gendered breakdown within these segments is significant. Specifically, 86 percent of small business income earners, 70 percent of those dependent on agriculture, and 98 percent of those purchasers who are dependent on a spouse were female purchasers. Males, on the other hand, comprise 59 percent of salaried employees. Here, women account for just 41 percent of salaried purchases. Gender differences among salary employees may tell us more about salaried employee composition among area organizations and government offices more so than it does about preferences among purchasers from these groups.

In addition, 63 percent of purchasers stated that they themselves contribute most to household income, while 38 percent of purchasers stated that their spouse contributes to household income the most. Among female improved cookstove purchasers, 52 percent stated that they themselves contribute most to household income, while 48 percent stated that their husband contributes most.

Decision-making power

A full 85 percent of purchasers indicated that they exercise total control over the use of household income.

Not only are over three quarters of purchasers independent income earners and two-thirds the largest contributor to the income of their household, but most also exercise a notably high degree of control over the use of household income. When asked to characterize the degree of control that they exercise over the use of their personal income, a full 85 percent of purchasers stated that they exercise total control. Further, 13 percent stated that they have a lot of control, while 2 percent stated that they have some control. Notably, no purchasers claimed to have minimal or zero control over the use of their own income.

Among female purchasers, 82 percent stated that they exhibit total control over household income use. This is perhaps not surprising given that a majority of women also indicated that they both have an independent source of income and are the biggest contributor to household income at the same time. Women's spending power may be undervalued at times; however, such a high percentage of total control over household income indicates that the women who purchased improved cookstoves also likely exercise above average control over decisions.¹⁶

Marital status

Most purchasers are married or with a partner, and living together.

Most purchasers, 64 percent, were married or with a partner, and living together. Almost equal parts single, unmarried and not living with a partner (11 percent each), married or with a partner, part of a multiple wife household (10 percent), and married or with a partner, but living separately

¹⁶ Women's Buying Power in Karamoja, Kim Beevers and Emmy Moorhouse. Gender and Market Systems Research Working Paper, Mercy Corps, 2014.

(11percent), purchased an improved cookstove. Only 5 percent of purchasers classified themselves as female-headed households.¹⁷

Notably, women comprised the majority of purchasers from all marital status categories except those that fall within the single, unmarried and not living with a partner category. Here, men comprised 64 percent of the purchasers. In-depth interviews indicated that a number of male purchasers had moved to the sub-region for work and had come without their families. These men now needed to cook for themselves and to acquire stoves to do so. They also often traveled from other cities and regions where improved cookstoves were more well-known and were more familiar with the product and informed of its benefits.

Further, 59 percent of purchasers stated that they were the head of household, while 39 percent stated that they were the spouse to the head of household. Among female purchasers, 42 percent declared themselves head of household.

The profile of the average improved cookstove purchaser indicates that the strategies tested throughout our applied research phase successfully reached targeted consumers. Most improved cookstove purchasers were female, urban-based, charcoal users with an independent source of income and a high degree of control over the use of that income. These consumers are likely to drive improved cookstove sales within the sub-region.

Other consumer groups are not represented among those who purchased improved cookstoves during the applied research phase. These include low income, rural and agriculturally-dependent consumer groups as well as women with limited decision-making power within their household. The program did not test strategies that targeted these consumers, though some were devised during the research phase. Testing strategies that would target motivations and barriers critical to improved cookstove purchase among these consumer groups required more time to test and/or alternative testing period that was not possible within the time restrictions of this project.

Improved Cookstove Use and Customer Satisfaction Trends

Fuel Use Changes

Purchasers interviewed for after sales customer review had had their improved cookstove for an average of six weeks. At this time, 99 percent of purchasers relied on charcoal for their primary cooking fuel. Those purchasers that utilized charcoal before and after their cookstove purchase identified a 47 percent reduction in charcoal fuel use with the adoption and use of their improved cookstove. On average, this amounts to a reduction from 1.7 basins of charcoal used a week to .8 basins. Collectively, fuel use fell from 70 bags to 30 bags per week. In other words, across one six week period to the next, fuel use fell from 420 bags of charcoal to 199 bags of charcoal among purchasers.

¹⁷ There were discrepancies between point of purchase and after purchase surveys for marital status in particular, pointing to some false self-reporting. Social stigma associated with multiple wife households as well as female headed households is high in the region. Purchasers who indicated that they are “married or with a partner, and living together” is likely over reported.

Stove Use Changes

When interviewed, 98 percent of purchasers identified their new, improved cookstove as their primary cooking means. Prior to purchase, 41 percent of purchasers used a metal stove, 28 percent of purchasers used a mud or clay built-in stove, 19 percent of purchasers employed a three stone fire, and 6 percent of purchasers already owned and used some type of improved cookstove.

Three sizes of the improved cookstove were on offer in East Acholi during the applied research period. Availability of different sizes depended entirely on the type of inventory stocked by each reseller. Throughout the research period, 45 percent of purchasers bought a size 1, the smallest size on offer of the improved cookstove, while 36 percent purchased a size 2, and 19 percent purchased a size 3. The cookstove size purchased did correlate to family size, with larger cookstoves purchased by households with more people in their household.

Broken down by sex, about 60 percent and 31 percent of men purchased a size 1 and size 2 respectively. Women, on the other hand, were more evenly spread across cookstove sizes. They purchased 38, 37, and 27 percent for size 1, 2, and 3 respectively.

Customer Satisfaction

Purchasers indicated exceptional product satisfaction with 98 percent of purchasers identifying as satisfied to highly satisfied with the performance of their improved cookstove. As a further indication of high levels of satisfaction with improved cookstove purchase and performance, purchasers indicated that they told or showed their improved cookstove to four people on average. Further, on average 1.7 of those with which improved cookstove purchasers discussed their improved cookstove actually purchased an improved cookstove themselves.

Conclusions and Recommendations

Impactful Strategies for Scale-Up

Throughout the applied research period and with targeted marketing and sales strategies in place, weekly sales volumes shot up by almost 50 percent when compared to the previous year's sales rates. Moreover, women accounted for a full 33 percent more of all purchases.

Several of the sales and marketing strategies tested seem to have contributed to these increases more so than others. The following strategies should be considered for wider application.

Establishing multiple sales points in major markets. Establishing sales points and decorating them with signs that share information about improved cookstove benefits and pricing resulted in many of the sales during our trial. Broadly, placing improved cookstoves where women most frequent – the market – seems like common sense.

Pushing information about time-savings benefits associated with improved cookstove use. Women care more about time-saving benefits than monetary benefits. Time-savings benefits, though, aren't widely used by current improved cookstove suppliers and distributors in their messaging. Awareness efforts to increase sales, particularly among women, should capitalize on testimonials surrounding time-savings. For example, as our campaign used, "cooking beans requires only one cup of charcoal."

Posting price range references. Qualitative research indicated that price references boosted consumer confidence while enabling retailers to negotiate as they would otherwise. Many purchasers showed up with full knowledge of the price of the cookstove in advance and saved on their own to make the purchase.

Building a local, female, commission-based salesforce. Sales agents reinforced many of the strategies tested, highly influencing most purchasers and resulting in increased sales broadly. And, they said they'd be happy to work on a very small commission. Working to integrate local sales agents that can push information and testimonials, recruit purchasers and manage order and delivery is a bargain that almost every reseller came to value and planned to carry on at their own cost when our research came to an end.

Learning

A number of lessons emerged from the research period and evaluation that offer insight into the improved cookstove market and considerations for scaling strategies.

Women are powerful consumers worthy of investment. Female purchasers indicated that they earn independent income, contribute majorly to total household income, and exercise a high degree of control over the use of resources – whether they are the main income earner in their household or not. This raises an important question: are businesses undervaluing female consumers? And, what implication does this have for business growth – especially in the improved cookstove sector.

Keep strategies and messaging simple. The more complex a strategy or tactic, the more likely the meaning will be lost. Establishing sales points in major markets combined with posted information is simple and highly effective toward increasing improved cookstove purchase among female consumers and sales overall. It need not be more complicated than this and, indeed, shouldn't be.

Non-financial barriers impact purchase more so than financial barriers. Though the project originally hypothesized that financial barriers significantly inhibit improved cookstove uptake among female consumers in East Acholi, in-depth consumer research and later strategy testing indicate that other barriers, namely ready access to the right information, are more inhibiting.

Markets are price conscious and particularly susceptible to price spoilage. Price consciousness isn't necessarily an expression of the price of the product as much as it is the perception of value when weighed against previous product pricing. In markets where the improved cookstove was sold for the first time and there was no price reference, no one complained about pricing. In markets where other improved cookstoves had been sold previously and a reference price existed, people complained a lot about the burden of higher prices. This offers an important lesson for market entry: establish a higher first price and discount where possible rather than establish a lower first price and need to raise it later on.

Future Research: Missed Consumer Groups

Finally, many of the strategies tested helped to increase improved cookstove purchases among our target segment and are worthy of scale-up. But, what about other consumer groups identified in our research and not targeted during the applied research phase? The boundaries of our study forced us to focus in on consumer groups with the greatest potential to purchase in a shorter period of time. A number of consumer groups, especially low income and rural populations, did not meet this criteria and were not targeted. These groups are more challenging, expensive, and time-consuming to reach, but they also account for most of the population in East Acholi. Follow-on research will be required to test strategies targeted to these groups and their impact on sales among these consumers as well as their viability as private sector-led tactics.



Annexes

Annex 1: About Mercy Corps' Improved Cookstove Programming in East Acholi

Access to modern energy underpins social and economic development. Energy poverty drives poverty in the developing world; poor energy access results in ill health, environmental degradation and limited economic growth. In Uganda, where biomass accounts for 91 percent of total energy used and 97 percent of rural households have no access to grid electricity, energy poverty is a central challenge. For those living in the Acholi sub-region, a largely rural and dispersed geographic expanse still recovering from two decades of armed conflict, access to energy is even more limited – and costly. Almost all households within Acholi (98 percent) identified biomass-based cooking as their primary cooking method. Here, 76 percent use three-stone fires as their chosen cooking technology. Annual Acholi household cooking fuel expenditures total US\$78 for charcoal and US\$56 for firewood. For households collecting firewood, the average total weekly time investment in collecting wood is over six hours.

Overview

To combat the energy poverty challenge in East Acholi, northern Uganda, Mercy Corps has worked to improve availability and access to improved cookstoves – among other technology. We've provided technical advisory support coupled with targeted financial investment to private sector partners interested in growing the cookstove market in East Acholi in three key areas:

As a nontraditional, socially-driven service provider, Mercy Corps is demonstrating the improved cookstove opportunity in northern Uganda and developing pathways for private sector cookstove suppliers to scale operations and sales across the sub-region.

Adapting and improving distribution strategies to better fit East Acholi market needs:

Distribution and retail channel development strategies employed by the major improved cookstove suppliers are inefficient and costly, limiting opportunities for product market penetration. In East Acholi, poor infrastructure adds significant costs to transportation and coordination; it also limits product availability and awareness. A higher number of points of sale as well as lower costs of establishing these dedicated sales points are more important in a rural, dispersed market with little awareness. Here, Mercy Corps:

- Supported East Acholi-based resellers and a national-level stove manufacturers and distributors to develop alternative distribution strategies tailored to the cookstove business opportunity in East Acholi, that included identifying and developing local improved cookstove wholesalers;
- Identified shared distribution channel opportunities for improved cookstoves, such as resellers with multiple shops and transporters who supply many businesses. Shared channels reduce costs and improve efficiency, helping to expand product access broadly and rapidly.
- Supported business and product skills development for improved cookstove wholesalers over several months.

Building awareness of importance of improved cookstove adoption:

At the start of Mercy Corps' intervention, Acholi consumers not only lacked access to improved cookstoves, but they were also unaware of the many benefits of adoption. Direct campaigns and below-the-line, customer-to-customer marketing is improving consumer interest and uptake in improved cookstoves. The slim profit margins generated by cookstoves aimed at this market, however, mean that actors rarely have the resources or the capacity to dedicate to stimulating demand across the sub-region themselves. Mercy Corps supported

awareness campaigns to jumpstart demand for improved cookstoves within East Acholi. With our private partners, we co-produced and disseminated social messaging to encourage improved cookstove adoption. We've also been working with local resellers to tailor their sales pitches and information offerings to different consumer segments.

Facilitating access to flexible finance and capital to increase uptake and adoption:

Limited financial resources inhibit improved cookstove uptake for all actors within the value chain. Though credit does exist within the value chain itself, it is only available for a small minority of actors. Manufacturers are unable to access the capital needed to grow their businesses to scale. Improved cookstove distributors and retailers are unable to access the capital required to build inventory and to expand their consumer base. Importantly, most consumers are unable to pay for an improved cookstove product in a single cash outlay. Limited access to capital, then, inhibits cookstove market growth and product access in East Acholi --- as it does widely across cookstove markets.

- Mercy Corps supported supplier-led credit and consignment financing to wholesalers within East Acholi in order to increase their order volumes and reduce transportation costs to suppliers. Wide success in terms of increased inventory uptake and 100 percent repayment rates has resulted in widespread adoption and application by a multitude of actors – without further Mercy Corps support.
- Mercy Corps undertook a small pilot research project to understand the viability of retailer-led financing and sales offers to consumers. We found that both price and non-price promotions tested were effective in increasing adoption rates of improved cookstoves. We also found that retailers were willing to take on the risk of extending offers on their own, without backing from Mercy Corps.

Headway

With a focus on sustainability, Mercy Corps made the business case to invest in East Acholi and developed a partnership with a number of improved cookstove manufacturers and distributors toward sustained investment in the East Acholi cookstove market. As one of the most marginalized markets in the world, including in Uganda, East Acholi fails to attract businesses and investment widely. However, ever increasing cookstoves sales across the sub-region have communicated the market opportunity, leading to wider investment by all actors within the value chain.

Since January 2013, about 2,500 cookstoves reaching 15,000 people have been sold.

Annex 2: Consumer Research Interviewee Segmentation

Overall, 47 individual interviews and 11 focus group discussions were conducted involving a total of 117 participants. The breakdown of the specific segments is found below. Each participant may be a member of multiple segments.

	Interviewees	Focus Group Participants
Sex		
Women	37	65
Men	10	5
Purchasing status		
Woman purchaser	11	16
Man purchaser	7	1
Woman whose husband purchased	4	0
Woman non-purchaser	22	53
Man non-purchaser	1	4
Size of the living location and proximity to population center where stove is sold		
Urban (Kitgum/Pader town center)	12	17
Peri-urban (1-3 km from town center)	11	22
Smaller trading center where stove sold	12	6
Smaller trading center where stove not sold	10	13
Village/Rural	0	14
Marital/Co-habitation status		
Female-headed household (widow, single, divorced)	4	16
Woman married living apart	7	3
Man married living apart	2	0
Woman married cohabitating	17	19
Man married cohabitating	5	4
Single man	1	0
Women's income sources		
Salaried	11	1
Small business income	17	26
Agriculture-dependent	2	26
Dependent on husband	7	5
Current/previous cooking method		
Firewood/open fire	4	24
Charcoal stove	39	32

Annex 3: Consumer Research Techniques

For focus groups of non-users, researchers utilized a number of tools and techniques to better understand consumer willingness to invest, attitudes toward payback period, access to lump sums of cash, relative value placed on reduced expenses as compared to increased income, and feature priorities.

Let's Make a Deal

This tool was designed to gauge the relative attractiveness of various types of investments or “deals” representing the costs and benefits of the improved cookstove as well as access to lump sums of cash in the face of an opportunity. Women were read 6 “deals” that they could then decide whether to take or not. They were told up front that the deals were not real, but they were asked to play as if they really were on offer today. Each woman was encouraged to decide individually and was given 6 ballot papers which were passed to the facilitator after each round to keep their ballots secret.

The first four deals are strictly monetary with no reference to cookstoves or charcoal at all. Disconnecting them from the cookstoves served to reduce false positives from the participants knowing that the researchers were there to talk about cookstoves and wanting to please. The monetary amounts involved in the first 3 deals roughly corresponded to the market prices for the 3 sizes of improved cookstoves and the approximate monthly savings from reduced charcoal expenditure over the life of the improved cookstove. So, for example, the first deal was the person pays UGX 25,000 (the price of a large cookstove) up front now. In return, she will get 14,000 every month (average monthly savings from a large cookstove) so that in 1 year she will have 168,000. This was repeated with amounts appropriate for the other sizes of cookstoves. The fourth deal used the amounts corresponding to the medium-sized cookstove but with the difference that the payment would be broken up into two monthly payments that exactly correspond to the amount that the person will get back at the end of each the month—the idea being to test whether breaking it up into two smaller payments would impact people’s ability to front the cash and take the deal.

The fifth deal still did not mention the cookstove but did discuss charcoal saving. In this deal, women had to pay an amount up front but were then entitled to a discount on charcoal each month for 5 years that was roughly equivalent to the savings they would experience from the improved cookstove. The sixth deal was the same as the fifth but with the introduction of the cookstove as well as the discount on charcoal.

After the votes were tallied, the women were asked to discuss why they voted as they did and where they would get the money to invest in the deals if they really were on offer today.

Findings

Several of the groups revealed that they were prevented from taking the deal today because they did not have 17,000-25,000 on hand, virtually every person or group interviewed indicated that if they did not have the money now, they could save the money within a reasonable period of time—usually a matter of a few weeks to 2 months. Among the women who could afford it, the larger upfront investment and larger payout was the most popular deal. Women with more limited resources tended to go for the smaller amounts or for the option that directly gave them a cookstove as well as a discount on charcoal. Some took none at all because they did not have the money that day.

Among the 4 groups tested with deals, one of the least popular deals was the one in which they would have to pay 17,000 up front in order to get a 9,000 discount on charcoal every month for 5 years. Only 1 of the 4 groups had a majority of takers on that deal. When asked why, one group said, “The savings, it is just imaginary. You are not seeing it.” The group also said, however, that it would have attracted their attention

much more if we had said that it would let them use the charcoal they are already buying in one month for two instead.

When a group of market women were asked to choose whether to take deals with a down payment of 25,000 (representing the cost of the largest stove) and return on investment of 14,000 for each month afterwards or a down payment of 20,000 with return on investment of 10,000 for each month afterwards, several women took the first deal but none took the second deal. When asked why, they indicated that with the first deal, they would have a “profit” of 3,000 in the second month while in the second deal they would just break even after the second month. The fact that in both deals it would be pure profit after the second month was outside their field of view. Even when this was pointed out to the group, they still considered it irrelevant showing that the group had enough discipline to invest in a sure bet with a short-term payout but were unwilling to extend their payback period beyond a 2-month horizon.

The group of women demonstrated the discipline to invest in a sure bet with a short-term payout.

Feature Preference Ranking

In order to test which features should be the focus of advertising, women were asked to choose among 4 features that she could have in her new cookstove. She could only have 1. The 4 features were:

1. Saves money,
2. Saves time by cooking faster,
3. Reduces the amount of charcoal used, and
4. Reduces the amount of smoke inhaled, protecting health.

After she chose, she was told she could add a second feature and asked to choose again, then a third, and so on. This was primarily implemented in focus groups by a show of hands.

Findings

Among women, by far, the most popular feature was saving time by cooking faster. The second most popular feature was typically split between saving money and saving charcoal. The smoke reduction feature was the least chosen as the first priority, but interestingly it was rarely last. Generally people placed it third above either saving charcoal or saving money—whichever they hadn’t put first. The one group that was the exception to the rule was a mixed gender group of firewood users. This group was split 50/50 between reducing smoke and saving time as the two top priorities. Men were the ones who pushed hardest for the smoke reduction and health benefits while the women were focused once again on time and to a lesser extent money.

Women prioritized time savings and to a lesser extent monetary savings benefits associated with cookstove.

Guide to the Tools

How to: Let’s Make a Deal

Give each person 6 small pieces of paper and a marker or pen. Tell them that you are going to describe some deals. For each deal, they should decide whether or not they would take the deal. You may say yes to as many

deals as you like or you may reject them all. If you would say yes and take the deal, put a ✓ and if not, put an X. Pass your paper to me without showing anyone. Are you ready?

1. Deal 1: You pay me 25,000 now. You get 14,000 this month and 14,000 next month. You get 14,000 each month so that after 6 months you will have 84,000 and in 1 year you will have 168,000. But to have these 168,000 shillings over 1 year, you must pay me 25,000 now. Please indicate now on your paper whether you will take the deal or not.
2. Deal 2: You pay me 20,000 now. You get 10,000 this month, 10,000 next month and 10,000 every month so that after 6 months you have 60,000 and after 1 year you will have 120,000. But you have to pay me 20,000 now. Please indicate now on your paper whether you will take the deal or not.
3. Deal 3: You pay me 17,000 now. You get 9,000 this month, 9,000 next month and 9,000 every month so that after 6 months you have 54,000 and after 1 year you will have 108,000. But you have to pay me 20,000 now. Please indicate now on your paper whether you will take the deal or not.
4. Deal 4: You pay me 10,000 now. You get 10,000 at the end of the month. You pay me 10,000 next month. You get 10,000 at the end of the month so that you have paid me a total of 20,000 over the course of 2 months and gotten back 20,000 after 2 months. Additionally, you will get 10,000 every month so at the end of 6 months you will have paid 20,000 and gotten 60,000 and at the end of 1 year, you will have paid 20,000 and gotten 120,000.
5. Deal 5: You pay me 17,000. I don't pay you anything, but I guarantee you a discount of 9,000 on charcoal for the next 5 years so that instead of paying 18,000 each month for your charcoal, you pay only 9,000.
6. Deal 6: You pay me 17,000. I give you a new cookstove that won't break, burns hotter, cooks faster, and makes less smoke than your local cook stove. In addition, you save 9,000 on charcoal every month for at least the next 5 years.

Keep the votes in separate piles. After all deals have been read and each person has voted on all the deals, count the votes and read aloud to the group.

- Why did you vote as you did?
- Would your answers change in any way depending on the person who is offering the deal?
- All of the deals require you to put some money down up front. Where would you get the money you need to make the down payment and begin getting the benefits of the deal?

How to: Feature Preference Ranking

Suppose that you could purchase one of 4 different stoves. One stove would save you money, one stove would save you time by cooking faster, one would reduce the amount of charcoal you use, and one would reduce the amount of smoke that you and your family inhales, protecting your health. If you could pick only one stove, which stove would you buy? If you could buy a stove with 2 of these features, what second feature would you add? If you could buy a stove with 3 of these features, what third feature would you add?

Annex 4: Detailed Consumer Group Guide

The following offers a more detailed look at East Acholi female consumer groups. For each group, a definition, barriers that may be inhibiting this group from purchasing improved cookstoves, enabling factors that might motivate the group to purchase improved cookstoves, and sales strategies to reach this group more effectively are offered. Finally, a measure of the group's likelihood and capability of purchasing an improved cookstove is offered. This is a subjective measure that weighs barriers, motivations and market size. Here, a score of very high, high, moderate, low, very low is offered.

Consumer groups include:

Groups by size of the living location and proximity to population center where stove is sold

1. Women who live in an urban setting
2. Women who live in a peri-urban setting
3. Women who live in small trading towns where the improved cookstove is currently sold locally
4. Women who live in small trading towns where the improved cookstove is NOT currently sold locally
5. Women who live in rural areas
6. Women who rent the homes in which they reside

Groups by marital status

7. Women who are the head of their household
8. Women who are married, but living apart from their husband
9. Women who are married and living with their husband

Groups by income type and source

10. Women who are salaried employees
11. Women who earn regular income from their small business
12. Women who earn occasional and/or irregular income
13. Women who are dependent upon seasonal agriculture for income
14. Women who are entirely dependent on their husband for money

Groups by cooking technology and fuel

15. Women who use inefficient, charcoal, metal stoves
16. Women who use built-in, clay or mud stoves
17. Women who primarily utilize firewood for cooking fuel

1. Women who live in an urban setting

Purchase likelihood and capability: very high

These women who live in the larger urban centers like Kitgum and Pader have the best access to the improved cookstoves. They are more likely to use charcoal already as a cooking fuel and to have a stable, non-seasonal household income such as a salary (either for themselves or through their husbands) or a non-seasonal small business. Transportation of the stove is less of a problem for them as they live only a short distance away from the shops selling the stoves.

Barriers that inhibit improved cookstove purchase

- Access to information: in spite of living in urban centers, many women do not know about the improved cookstoves. Even they are among the segments most likely to have seen them in shops, many of them reported that they had not noticed them or if they had noticed them, they had not stopped to inquire about them.
- Product placement: Even though they live in urban areas and have ample access to the shops where the improved cookstoves are being sold, urban women still report that they primarily shop in markets and the shops around the market.
- Lack of reference price: Although they are more likely than some women to have neighbors or friends using the improved cookstoves, these women still report reluctance to approach shopkeepers without knowing the price.
- Cash constraints: urban women are buying most, if not all, of their food. This means that although they may have more money from small business activity or salary, more of it is going to food purchases as compared to those living in rural areas. Charcoal prices, too, are higher in urban areas, further squeezing household budgets.
- Price anchoring: urban women are more likely to have an idea in their minds of what an ordinary cookstove should cost based on prior experiences with metal cookstoves or seeing other cookstoves in the market. This can lead them to perceive the improved cookstoves as very expensive.

Motivating factors that engender cookstove purchase

- Urban women are likely to already be using charcoal and paying a relatively high price for it. This means that they would especially benefit from an improved cookstove that reduces their charcoal consumption and thus expenditure by 50 percent.
- Urban women are also more likely to be renters, making the portability of the improved cookstove an attractive feature.
- Urban women also may live in tighter quarters or have less access to outdoor space for cooking than rural women, so the cleanliness of the improved cookstove could be especially appealing to them.
- Transportation of the improved cookstove is less of a problem for them as they live close to the retailers and can either carry it themselves or hire a boda boda driver to carry it a short distance for a reasonable price.
- The households of urban women are likely to have some regular cash income to meet daily living expenses. Unlike subsistence farmers who may only get cash money when they need to make an expenditure, these families tend to have cash on hand and are able to save.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should try to link saving money on charcoal with recovering the cost of the new cookstove. Messages such “At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months” should help justify the higher price as compared to other locally available cookstoves. If a “deal” is promoted such as a discounted price for savings groups or people making a savings commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.
- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the markets, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women.
- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. It should be easiest in urban areas to implement an arrangement whereby a group gets one improved cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent.
- In-store installment plans would work best in an urban context where transaction costs are lower. However, the savings box in-home commitment savings plan may still be more attractive.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

2. Women who live in an peri-urban setting

Purchase likelihood and capability: high

These women are who live on the outskirts of larger urban centers like Kitgum and Pader. They generally need to travel 1-3 km to reach the town center and main markets. Their homes are more likely to have small garden patches, and they may have a few chickens or goats. They are far enough away from the center that they do most of their shopping at small neighborhood markets and shops that provided a limited range of foods and products like soap and washing powder that women use every day but once a week or so will probably go into the main market in town. They may be using charcoal stoves but are more likely than urban women to be using built-in mud/clay stoves or using a mixture of charcoal and firewood. Transportation of the improved cookstove was cited as a problem by several of these women interviewed.

Barriers that inhibit improved cookstove purchase

- Access to information: In spite of living a short distance away from the town centers where the improved cookstoves are sold, these women appeared to have little information about them unless they had a neighbor or a relative using them, although some reported having heard about them on the radio. Even if they had heard about them, most did not know specifically where they could go to get them.
- Product placement: Although they live within walking distance of the town center, these women report that they do most of their shopping in small neighborhood markets close to their homes. Those interviewed said that they go into town only when they need something not sold at the local market, which might be once per week or less frequently if they do not have a business that they need to restock. When they do go into town, they are mainly going into the market or the shops surrounding the market and do not often go into other shops in town unless they are buying something specific and have been told where to go.
- Lack of reference price: Although they are more likely than some women to have neighbors or friends using the new improved cookstoves, these women still report reluctance to approach shopkeepers without knowing the price. One group that we talked to had very exaggerated ideas of the price thinking that it might be UGX 35,000, 50,000 or even 90,000.
- Cash constraints: These women seem to be slightly less likely to have a steady income-generating activity of their own and seem to rely partially on their gardens for food security meaning that they have fewer expenses for food but may also have less cash on hand than urban women. This varies considerably depending on the economic activity of the husband, if they are married. They are also typically purchasing charcoal and paying high prices for it similar to those in the center of town.
- Transportation of the improved cookstove: Although they live within walking distance of the shops selling the improved cookstove, some of the women

Motivating factors that engender cookstove purchase

- They are likely to already be using at least some charcoal and paying a relatively high price for it. Many of those interviewed reported using firewood only when they could not afford charcoal or ran out. Having an improved cookstove that reduces their charcoal consumption by 50 percent will make cooking with charcoal more affordable for them and may allow them to cook with charcoal all the time.
- Quite a few of these women reported going back and forth to their village gardens with some regularity. They may see the portability of the improved cookstove an attractive feature, especially if they are using built-in clay stoves.
- These women are also likely to live in households with at least some regular income. Their incomes may be lower than urban women and they may rely significantly on their gardens for food, but they are likely purchasing at least some food and everyday necessities and are likely to have cash on hand for these expenditures, making it possible for them to save.

expressed concerned about transporting the stoves to their homes saying that they were difficult to carry and did not trust others to transport it for them without breaking it.

- Price anchoring: They are likely to have an idea in their minds of what an ordinary cookstove should cost based on prior experiences with metal cookstoves or seeing other cookstoves in the market. This can lead them to perceive the improved cookstoves as very expensive.
- Switching costs/fuel costs: Many of these women have clay/mud stoves or ovens that they did not buy and perhaps did not even pay to have built. In some cases, they are using a mix of charcoal and firewood in them. This investing in the purchase of a new stove more of an investment for them, and they may perceive a reduction in flexibility in terms of the type of fuel they use with the new stove.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should try to link saving money on charcoal with recovering the cost of the new improved cookstove. Messages such “At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months” should help justify the higher price as compared to other locally available cookstoves. If a “deal” is promoted such as a discounted price for savings groups or people making a savings commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.
- Identify a satisfied improved cookstove user who is already selling in the neighborhood market and/or a part of neighborhood savings groups. Retailers can give that person a small number of improved cookstoves to sell on consignment helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- Retailers could organize a weekend promotional event led by the newly recruited local salesperson. Retailers could supply a sign, a T-shirt, and maybe some promotional item or food to support the launch of the new salesperson and let that person take care of the rest.
- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. In combination with the local salesperson strategy, it should be possible to implement an arrangement whereby a group gets one cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have

saved 50 percent, organizing special free delivery to the group as an incentive for members to join in and keep to the commitment.

- Retailers could promote the use of a home savings box, giving people who come in to register a free box. As an added incentive, if the person gets 3 or more other people in their neighborhood to sign up, the retailer could provide free delivery of the stove once everyone in the registered group has completed their savings goal. This would be a way of getting people to recruit others, applying a mild level of social pressure for everyone to finish saving so everyone can get their stoves, and reducing transportation costs by batching orders for delivery.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

3. Women who live in small trading towns where the improved cookstove is currently sold locally

Purchase likelihood and capability: very high

These women who live in smaller trading centers like Padibe East, Kalongo, and Patongo where the improved cookstove is currently being sold. They share many characteristics with urban women in that transportation of the stove is less of a problem for them as they live only a short distance away from the shops selling the stoves, they are likely shopping near the location where the improved cookstoves are sold, and are likely to be using charcoal or a mixture of charcoal and firewood currently. In fact, they may have the best access to the improved cookstoves of any group because the town centers are small with few shops or options for buying. This means they are more likely to be going to the shops where they are sold or passing by them. They are, however, more likely to have at least partial dependence on seasonal agriculture and their incomes may be lower than those in urban areas.

Barriers that inhibit improved cookstove purchase

- Access to information: in spite of living in town centers where the improved cookstoves are sold, many women do not know about the improved cookstoves. Even they are among the segments most likely to have seen them in shops, many of them reported that they had not stopped to inquire about them.
- Lack of reference price: Although they are more likely than some women to have neighbors or friends using the improved cookstoves, these women still report reluctance to approach shopkeepers without knowing the price.
- Cash constraints: Although salaried women in smaller towns seem to face few cash constraints, there are fewer of these in smaller towns than in larger urban centers. Those who are not salaried are

Motivating factors that engender cookstove purchase

- They are likely to already be using at least some charcoal and purchasing it rather than making it. Many of those interviewed reported using firewood only when they could not afford charcoal or ran out. Having an improved cookstove that reduces their charcoal consumption by 50 percent will make cooking with charcoal more affordable for them and may allow them to cook with charcoal all the time.
- Quite a few of these women reported going back and forth to their village gardens with some regularity. They may see the portability of the improved cookstove an attractive feature, especially if they are using built-in clay stoves.
- These women are also likely to live in households with at least some regular income. Their incomes may be lower than urban women and they may rely

more likely than urban or peri-urban women to be tied to some degree to seasonal agriculture. They may do a mix of small business and agriculture meaning that at some times of the year they have more cash than at others.

- Switching costs/fuel costs: These women may have some ability to gather firewood for “free” in their gardens or nearby villages and as such, may rely partially or entirely on firewood for cooking and as such would incur additional costs if they were to begin to purchase charcoal.
- Price anchoring: These women may have an idea in their minds of what an ordinary cookstove should cost based on prior experiences with metal cookstoves or seeing other cookstoves in the market. This can lead them to perceive the improved cookstoves as very expensive especially as compared to other goods available in the community.

significantly on their gardens for food, but they are likely purchasing at least some food and everyday necessities and are likely to have cash on hand for these expenditures, making it possible for them to save.

- If the woman is working or doing some small business, she may prefer to use charcoal if doing so is affordable as taking time to gather firewood is more of a time commitment for these women in small towns than it is for villagers and if there is an economic opportunity cost to collecting firewood, a cost-efficient charcoal stove option could be attractive.
- Transportation of the improved cookstove is less of a problem for them as they live close to the retailers and can either carry it themselves or hire a boda boda driver to carry it a short distance for a reasonable price.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should try to emphasize the value of women’s time and how much time they will save cooking with the new stove. Linking saving money on charcoal with recovering the cost of the improved cookstove would also be effective for those already using charcoal or predominantly. Messages such “At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months” should help justify the higher price as compared to other locally available cookstoves. If a “deal” is promoted such as a discounted price for savings groups or people making a savings commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.
- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the markets, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women.
- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. It should be relatively easy in small towns to implement an arrangement whereby a group gets one improved cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent.
- In-store installment plans could possibly work well here because the shops selling the improved cookstoves in these small towns are multi-purpose stores that also sell items that women purchase frequently like sugar, salt,

and soap. If the shopkeeper actively encourages people to open an account and save a little each time they come in to purchase other products, the money could accumulate quickly. It could especially effective if the shopkeepers were to adopt a policy that no amount is too small and capture people’s “spare change” after a transaction, recording it toward the purchase of the improved cookstove. A punch card or other visual reminder that provides both a receipt and encouragement of progress toward goal could be an effective add-on to this.

- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

4. Women who live in small trading towns where the improved cookstove is NOT currently sold locally

Purchase likelihood and capability: high

These women live in smaller trading centers like Kitgum Matidi, Latanya, Parabek Ogili, and Pajule where the improved cookstove is not currently being sold. They mainly shop in their local markets and take advantage of “auction” or market days to buy goods that are not available on a daily basis. Unless they are in the trading business, they very rarely travel to the larger urban centers like Kitgum and Pader—even if they are not very distant. Those in business may travel to the larger urban centers on a weekly or monthly basis, though smaller traders often do not go to resupply themselves but rather purchase from a middleman or give someone else money to purchase on their behalf. They are likely to be using a built-in clay or mud stove and may be burning charcoal or a mixture of charcoal and firewood currently. They are more likely that urban or peri-urban women to have at least partial dependence on seasonal agriculture and their incomes may be lower than those in urban areas.

Barriers that inhibit improved cookstove purchase

- Access to information: These women likely have little to no information at all about the improved cookstoves. Market penetration of the improved cookstoves outside the immediate area where they are being sold is minimal. Retailer records show just a handful of improved cookstoves being sold to people from outside that town. This means that perhaps only 1 or 2 people, at most, in these communities might have purchased an improved cookstove and it is unlikely that the average person has seen it or talked to them about it.
- Product placement: They rarely, if ever, go into the communities where the improved cookstoves are being sold. When they do go, they are likely to go with a specific purpose such as resupplying their

Motivating factors that engender cookstove purchase

- They are likely to already be using at least some charcoal and purchasing it rather than making it. Many of those interviewed reported using firewood only when they could not afford charcoal or ran out. Having an improved cookstove that reduces their charcoal consumption by 50 percent will make cooking with charcoal more affordable for them and may allow them to cook with charcoal all the time.
- Quite a few of these women reported going back and forth to their village gardens with some regularity. They may see the portability of the improved cookstove an attractive feature, especially if they are using built-in clay stoves.
- These women are also likely to live in households with at least some regular income. Their incomes may be

business or purchasing a specific item from a specific shop. If they are not informed ahead of time, they will likely not see the improved cookstoves even when they go to town.

- Lack of reference price: Many of these women may have little to no idea how much to expect an improved cookstove like this to cook as most use traditional clay or mud stoves or open fires. They will be reluctant to approach shopkeepers without having some idea of the price.
- Cash constraints: Although salaried women in smaller towns seem to face few cash constraints, there are fewer of these in smaller towns than in larger urban centers. Those who are not salaried are more likely than urban or peri-urban women to be tied to some degree to seasonal agriculture. They may do a mix of small business and agriculture meaning that at some times of the year they have more cash than at others.
- Switching costs/fuel costs: These women may have some ability to gather firewood for “free” in their gardens or nearby villages and as such, may rely partially or entirely on firewood for cooking and as such would incur additional costs if they were to begin to purchase charcoal.
- Transportation is a significant barrier for these women. Unless they are doing business, they rarely leave their hometown and do not have easy access to a means of transportation other than walking.

lower than urban women and they may rely significantly on their gardens for food, but they are likely purchasing at least some food and everyday necessities and are likely to have some cash on hand for these expenditures, making it possible for them to save, though in the smallest towns you do find people who are nearly entirely dependent on subsistence agriculture.

- If the woman is working or doing some small business, she may prefer to use charcoal if doing so is affordable as taking time to gather firewood is more of a time commitment for these women in small towns than it is for villagers and if there is an economic opportunity cost to collecting firewood, a cost-efficient charcoal stove option could be attractive.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Take advantage of monthly or weekly auction days to raise awareness of and sell the improved cookstoves.
- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the auction markets on auction day, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women. It is important, however, that the improved cookstoves be available for purchase both at the time of the promotional event and at some predictable time afterwards so that people who become interested during the promotional event but do not have money to buy at that time can know when their next opportunity to purchase is and start saving toward that.
- In advance of the promotional event, auction day, or follow up sales opportunity, use radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where and when to purchase it can help overcome barriers to information and can help people prepare financially for the opportunity to buy. Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers can also be helpful in this regard.
- Both radio campaigns and posters should try to emphasize the value of women’s time and how much time they will

save cooking with the new stove. Linking saving money on charcoal with recovering the cost of the improved cookstove would also be effective for those already using charcoal or predominantly.

- Identify a satisfied improved cookstove user who is already selling in the local market. Retailers can give that person a small number of improved cookstoves to sell on consignment (or leave the unsold ones with them after auction day) helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. Retailers could choose to offer improved cookstoves to savings group members after they have saved 50 percent and use delivery day as a promotional event to encourage more people in the community to buy or combine it with an auction day trip.
- At auctions or promotional events, retailers could give out savings boxes and register people for a commitment savings plan. There could be a regular delivery schedule (perhaps coinciding with auction day) for people who notify the retailer that they have completed their savings.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.
- Referral coupons with a guaranteed price can be used to encourage the spread of information person-to-person and instill confidence that they will be getting a fair price for the product. However, they need to be used in conjunction with other strategies that make it easier for people to access the improved cookstoves in their community.

5. Women who live in rural areas

Purchase likelihood and capability: low

These women who live in rural areas. They may share similar characteristics with some women living in small trading centers like Latanya, Parabek Ogili, and Parabek Kal that have auction days but otherwise have very low levels of commercial activity. They are primarily subsistence farmers or farmers that produce both cash crops and for their own consumption. They produce much of what they need themselves and when they shop they mainly shop in nearby small trading centers or take advantage of “auction” or market days. Unless they are in the trading business, they very rarely travel to the larger urban centers like Kitgum and Pader—even if they are not very distant. Those selling produce, charcoal, or firewood may travel to the larger urban centers on a weekly or monthly basis, though this is often seasonal and, in the case of charcoal and firewood, they are more likely to sell it to a middleman than to come into town to sell it themselves. They are likely to be cooking over an open fire or using a built-in clay or mud stove that burns firewood or a mixture of charcoal and firewood.

Barriers that inhibit improved cookstove purchase

- Access to information: These women likely have little to no information at all about the improved

Motivating factors that engender cookstove purchase

- They are likely feeling the effects of smoke on their health and that of their children.

cookstoves. Market penetration of the improved cookstoves outside the immediate area where they are being sold is minimal. Retailer records show just a handful of improved cookstoves being sold to people from outside that town and very few at all in villages. Retailers have made little effort to spread the word about the improved cookstoves to people in the villages, so if they have heard about it, it is likely through a radio program.

- Product placement: They rarely, if ever, go into the communities where the improved cookstoves are being sold. When they do go, they are likely to go with a specific purpose. More often it is the men in these households who have money and go into town to buy goods. This means that women do not have the opportunity to see the improved cookstoves and learn about them in order to tell their husbands and request that they buy it.
- Lack of reference price: Many of these women may have little to no idea how much to expect an improved cookstove like this to cook as most use traditional clay or mud stoves or open fires. They will be reluctant to approach shopkeepers without having some idea of the price.
- Cash constraints: Most of these women live in households dependent on seasonal or subsistence agriculture. If they are married, they themselves see little of the money brought by seasonal cash crops as these are mainly sold by men. Instead, they rely on selling small amounts of produce or harvest from their own stores when they need cash or doing labor in a neighbor's garden for money. Brewing or fetching water are other activities that they may do for cash. This means that they rarely have much cash in the home unless they have been given some for safekeeping by their husbands. They can save, but they need more time to plan and prepare than more commercially-oriented households.
- Switching costs/fuel costs: These women primarily gather firewood for "free" in their gardens or nearby villages and as such, may rely partially or entirely on firewood for cooking and as such would incur additional costs if they were to begin to purchase charcoal.
- Transportation is a significant barrier for these

- The convenience of an improved cookstove that they do not have to tend and constantly feed with firewood can be very attractive. Many women complained that they were often late getting meals ready when they were doing a lot of work in their gardens. This is likely a motivating factor for their husbands as well as they are probably the ones complaining about the late meals.
- Freeing up time that women are currently spending collecting firewood and tending the fire can allow them to take on more income-generating activity.

women. Unless they are doing business, going to auction day, or going to a health center, they rarely leave their villages and do not have easy access to a means of transportation other than walking.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Take advantage of monthly or weekly auction days to raise awareness of and sell the improved cookstoves.
- Promotional events could reach these women--especially if they are held near the auction markets on auction day, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women. It is important, however, that the improved cookstoves be available for purchase both at the time of the promotional event and at some predictable time afterwards so that people who become interested during the promotional event but do not have money to buy at that time can know when their next opportunity to purchase is and start saving toward that. The timing of the events may be important as well. If they are during the period from October through January, women may be able to ask their husbands for some of the money from the sale of cash crops to purchase the improved cookstove.
- In advance of the promotional event, auction day, or follow up sales opportunity, use radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where and when to purchase it can help overcome barriers to information and can help people prepare financially for the opportunity to buy. Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers can also be helpful in this regard.
- Both radio campaigns and posters should try to emphasize the value of women's time and how much time they will save cooking with the new stove as well as the health benefits for their families.
- Provide a sample improved cookstove to a village leader. It would be even better to do so in conjunction with a promotional event that is timed to coincide with village or sub-county meetings.
- Identify savings group leaders and coordinate a demonstration or talk with savings groups. Auction day demonstrations could be used to recruit savings group leaders and sign them up to save for the improved cookstove. The retailer could work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. Retailers could choose to offer improved cookstoves to savings group members after they have saved 50 percent and use delivery day as a promotional event to encourage more people in the community to buy or combine it with an auction day trip.
- At auctions or promotional events, retailers could give out savings boxes and register people for a commitment savings plan. There could be a regular delivery schedule (perhaps coinciding with auction day) for people who notify the retailer that they have completed their savings.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.
- Referral coupons with a guaranteed price can be used to encourage the spread of information person-to-person and instill confidence that they will be getting a fair price for the product. However, they need to be used in conjunction with other strategies that make it easier for people to access the improved cookstoves in their community.

6. Women who rent the homes in which they reside

Purchase likelihood and capability: moderate

Renters of homes that do not include a built-in clay stove use portable cookstoves. They are often planning to build their own home someday or may be only temporarily assigned to that location for work. As such, they need a cookstove they can take with them when they move. They are most common in urban areas and small towns, but can also be found in peri-urban areas.

Barriers that inhibit improved cookstove purchase

- Access to information: Depending on where they live and other factors, they may not be aware of the new improved cookstoves. Even if they have seen them, they are unlikely to know about the “improved” features that make it better than the other stoves available unless a friend, relative, or neighbor has told them.
- Product placement: Unless the stoves are being sold in the same shops where metal and other portable stoves are already being sold, metal stove users may not see the improved cookstoves when it is time to buy a new one.
- Cash constraints: Because they have to pay rent on top of other expenses, renters can be more cash constrained than other people. Salaried people who are renting because they are new to the community are the exception to this. Because they are often found in urban areas and small towns, they may be buying most, if not all, of their food. Charcoal prices, too, are higher in urban areas, which may squeeze household budgets and make it to buy the improved cookstove at once.
- Price anchoring: Renters may be accustomed to buying cheaper portable non-improved cookstoves which may lead them to perceive the improved cookstoves as very expensive because they are comparing them to the cost of the metal stove or other portable options.

Motivating factors that engender cookstove purchase

- They are mostly likely using charcoal and paying a relatively high price for it. The most common stove type for renters are the metal ones which are quite inefficient in that they do not conserve heat meaning that they must be fed constantly with charcoal to cook. These women, therefore, would especially benefit from an improved cookstove that reduces their charcoal consumption and thus expenditure by 50 percent.
- Because metal stoves require frequent feeding with fresh charcoal, women will especially appreciate the time savings from faster cooking time and not having to feed the fire.
- They probably have to replace their current stove often, so most will be shopping for a replacement in the next year anyway. When their old stove wears out, it is a natural time to upgrade as they were going to have to spend at least some money on a stove anyway.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.

- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should try to link saving money on charcoal with recovering the cost of the new cookstove as well as saving time by feeding the fire less frequently. Messages such “At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months” should help justify the higher price as compared to other locally available cookstoves and should appeal to both men and women. For women in particular, messages about being able to fill the improved cookstove once with charcoal and come back to find your food is fully cooked could be especially effective with this group. If a “deal” is promoted such as a discounted price for savings groups or people making a savings commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.
- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the markets, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women.
- Those with lower incomes may feel that investing in this more expensive improved cookstove is a risk. If it does not end up saving them charcoal and money, they will have used a scarce resource poorly. So, having the right to return and get their money back if the improved cookstove does not perform according to expectations could reduce hesitancy. The right to return could even be part of an advertised promotion—a cookstove challenge where people who buy the improved cookstove can return it within a week or two if they find it does not save them charcoal as promised.
- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. It should be easiest in urban areas to implement an arrangement whereby a group gets one improved cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

7. Women who are the head of their household

Purchase likelihood and capability: high

These women may be single, widowed, divorced, or abandoned. Although their specific circumstances vary depending on their location and income source, they are distinctive in that they have sole or primary responsibility for the household. This means they have wide discretion in terms of making decisions and deciding how to use household income, but they also often bear heavy work burdens as both mothers and sole income earners.

Barriers that inhibit improved cookstove purchase

Motivating factors that engender cookstove purchase

- Access to information: These women tend to move around more than married women in similar situations as they have no man in the house to take care of business. However, they tend to be quite busy and have limited time to socialize or shop around. As such, they have limited access to information about the improved cookstoves unless they have a relative or friend who is using it.
- Product placement: Even if they live in urban areas where the improved cookstoves are being sold, they are highly time constrained with little time to shop around. They primarily shop in markets and the shops around the market.
- Lack of reference price: These women report reluctance to approach shopkeepers without knowing the price.
- Cash constraints: The cash situation depends on the income source. However, female-headed households tend to be more cash constrained than dual parent households because the woman has to split her time between childcare and income-generating activities leading them to focus on a limited range of activities that allow them to do both but are often low profit. They also may be excluded from some income-generating activities because of gender barriers, and may have lower levels of education and skills further limiting their income-earning potential.
- They are highly time-constrained meaning that the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood are especially valuable to these women.
- Without a man in the home, they have broad decision-making power and control over financial resources. Though money may be scarce, they can decide to invest it in something that saves them time or money without needing to negotiate with their husbands.
- If they are already using charcoal, they will see all the savings in their household budget and thus would incur a direct benefit as compared to married women whose husbands may purchase charcoal and not pass the additional saved income on to them.
- Cleanliness of the improved cookstove could be especially appealing to them as it saves them time.
- They are likely to be working outside the home, so the portability of the improved cookstove may appeal to them as it allows them to cook where they work and more seamlessly blend work and childcare responsibilities.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Proactive communications strategies are particularly important for these women because they are very busy and don't have time to shop around. Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should emphasize both the time-saving features of the improved cookstove and the way that it saves charcoal and money. Testimonials from other women about how it saves time and makes it easier for them to do everything they need to do in the day should be effective. Likewise, linking saving money on charcoal with recovering the cost of the new improved cookstove can help her justify the purchase to herself if money is tight. Messages such "At only 19,000 shillings, this improved cookstove pays for itself in charcoal savings in less than 2 months" should help justify the higher price as compared to other locally available improved cookstoves. If a "deal" is promoted such as a discounted price for savings groups or people making a savings

commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.

- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Retailing through satisfied improved cookstove users in diverse markets can also help make the improved cookstove more accessible to these women. Retailers can give that person a small number of improved cookstoves to sell on consignment (or leave the unsold ones with them after auction day) helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. It should be easiest in urban areas to implement an arrangement whereby a group gets one cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent.
- In-store installment plans could possibly work for women in urban areas and small towns if the shops selling the improved cookstoves in these small towns are multi-purpose stores that also sell items that women purchase frequently like sugar, salt, and soap. If the shopkeeper actively encourages people to open an account and save a little each time they come in to purchase other products, the money could accumulate quickly. It could especially effective if the shopkeepers were to adopt a policy that no amount is too small and capture people’s “spare change” after a transaction, recording it toward the purchase of the improved cookstove. A punch card or other visual reminder that provides both a receipt and encouragement of progress toward goal could be an effective add-on to this. The key for this group, though, is that it needs to be convenient. They are unlikely to make an extra trip to deposit. Therefore, savings boxes with an individual commitment plan might be preferable in some cases.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

8. Women who are married, but living apart from their husband

Purchase likelihood and capability: moderate

These women are living separately from their husbands most often for work or education. It may be that they are away from “home” for work or that their husband is away. The effect is similar except that women who are themselves living away from home for work tend to be more independent and better off financially than those whose husband is away. Typically these women share many characteristics with female-headed households. They are responsible for the day-to-day decisions in the home and typically have broader discretion in making purchases for the home than married women living with their husbands. Even if she is the one staying home while her husband goes away for work, she is likely to undertake some income-generating activity of her own to smooth consumption as remittances can be irregular and unreliable. Because of this dual income, they may be in a slightly better financial situation than female-headed households, although those dual incomes are supporting two residences and thus may see higher expenses.

Barriers that inhibit improved cookstove purchase

- Access to information: These women tend to move around more than married women in similar situations as they have no man in the house to take care of business. However, they tend to be quite busy and have limited time to socialize or shop around. As such, they have limited access to information about the improved cookstoves unless they have a relative or friend who is using it.
- Product placement: Even if they live in urban areas where the improved cookstoves are being sold, they are highly time constrained with little time to shop around. They primarily shop in markets and the shops around the market.
- Lack of reference price: These women report reluctance to approach shopkeepers without knowing the price.
- Cash constraints: The cash situation depends on the income source. However, if it is the wife that is at home while the husband is away, she may find that cash is very tight between remittances as her income-earning potential may be limited by childcare responsibilities.
- Decision-making: If the woman is dependent on remittances from her husband, her husband may only send enough for food and basic consumption making any larger purchases subject to negotiation.

Motivating factors that engender cookstove purchase

- They are likely highly time-constrained meaning that the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood are especially valuable to these women.
- Without a man in the home, they have broader decision-making power and control over financial resources than married women with a man in the home though they may not control the bulk of the family's income. From whatever money they do have to manage the household, they can typically decide to invest it in something that saves them time or money without needing to negotiate with their husbands.
- If they are already using charcoal, they will see all the savings directly in the household budget as they are likely purchasing the charcoal themselves out of the same money they use for other household expenses.
- Cleanliness of the improved cookstove could be especially appealing to them as it saves them time.
- They are likely to be working outside the home, so the portability of the improved cookstove may appeal to them as it allows them to cook where they work and more seamlessly blend work and childcare responsibilities.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Proactive communications strategies are particularly important for these women because they are very busy and don't have time to shop around. Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information. Additionally, radio campaigns and posters can be helpful in gaining support from their husbands, if necessary.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should emphasize both the time-saving features of the improved cookstove and the way that it saves charcoal and money. Testimonials from other women about how it saves time and makes it easier for them to do everything they need to do in the day should be effective. Likewise, linking saving money on charcoal with recovering the cost of the improved cookstove can help her justify the purchase to herself if money is tight. Messages such "At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months" should help justify the higher price as compared to other locally available cookstoves. If a "deal" is

promoted such as a discounted price for savings groups or people making a savings commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.

- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Retailing through satisfied improved cookstove users in diverse markets can also help make the improved cookstove more accessible to these women. Retailers can give that person a small number of improved cookstoves to sell on consignment (or leave the unsold ones with them after auction day) helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. It should be easiest in urban areas to implement an arrangement whereby a group gets one cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent.
- In-store installment plans could possibly work for women in urban areas and small towns if the shops selling the improved cookstoves in these small towns are multi-purpose stores that also sell items that women purchase frequently like sugar, salt, and soap. If the shopkeeper actively encourages people to open an account and save a little each time they come in to purchase other products, the money could accumulate quickly. It could especially effective if the shopkeepers were to adopt a policy that no amount is too small and capture people’s “spare change” after a transaction, recording it toward the purchase of the improved cookstove. A punch card or other visual reminder that provides both a receipt and encouragement of progress toward goal could be an effective add-on to this. The key for this group, though, is that it needs to be convenient. They are unlikely to make an extra trip to deposit. Therefore, savings boxes with an individual commitment plan might be preferable in some cases.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

9. Women who are married and living with their husband

Purchase likelihood and capability: high

These women are living with their husbands. They may or not be traditionally, religiously, or legally married, but this has little effect on their behavior. Unless their husbands are disabled or alcoholic, they may be in a slightly better financial situation than female-headed households. They typically manage at least some small amount of household money for small purchases like foodstuffs, soap, clothing, cooking utensils, and charcoal but will generally defer to their husbands on larger purchases. The degree to which they have purchasing power and independent decision-making varies according to whether or not they have independent income and its source. They generally have less freedom of movement than those women who do not have a man in the home.

Barriers that inhibit improved cookstove purchase

- Access to information: Unless they are doing business, these women tend to stay close to home.

Motivating factors that engender cookstove purchase

- They are interested in stretching their household resources as far as possible. They will appreciate that

They will typically get information from relatives and friends. Therefore, they will have little information or awareness of the improved cookstoves unless their relatives, friends, or neighbors have one.

- **Product placement:** Even if they live in urban areas where the improved cookstoves are being sold, they primarily shop in markets close to their homes, auctions (in small towns) and the shops around the main market in Kitgum (urban and peri-urban). They rarely go to shops and therefore may not have seen or been aware of the improved cookstoves.
- **Lack of reference price:** These women may make large purchases very seldom, if at all. If they perceive that the improved cookstoves are a “large” purchase—meaning that they are outside the price range that they can spend without asking for money from their husbands or raising questions—they may not approach the retailer at all. They report reluctance to approach shopkeepers without having a sense of the price because they don’t think that they have enough money.
- **Cash constraints:** Married women with salaries or steady small business income generally have enough money to buy the improved cookstoves. However, married women who depend primarily on an allowance from their husbands to meet household expenditures generally have very little money left over after meeting household expenses. Men generally do not bring their whole salary or earnings home, so a married woman can feel cash constrained even if the actual household income is more than adequate to purchase the improved cookstove.
- **Decision-making:** Can be a barrier if the woman has limited income of her own or is dependent on her husband’s income. In any case, a married woman is typically only able to decide over a portion of the overall household income without involving her husband.

the improved cookstove saves money and charcoal, though the impact of this may be muted if their husbands reduce their contributions to the household budget now that charcoal expenditures are reduced.

- They will also appreciate the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood. They may find that they feel less pressure in balancing their home responsibilities with other work such as gardening or trading when they don’t have to feed the fire and the food can cook more quickly.
- If they are working outside the home, the portability of the improved cookstove may appeal to them as it allows them to cook where they work and more seamlessly blend work and cooking, thereby keeping their husbands happy.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price

and where to purchase it can help overcome barriers to information. Additionally, radio campaigns and posters can be helpful in gaining support from their husbands, if necessary.

- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should emphasize both the time-saving features of the improved cookstove and the way that it saves charcoal and money. Testimonials from other women about how it saves time and makes it easier for them to do everything they need to do in the day should be effective. Likewise, linking saving money on charcoal with recovering the cost of the improved cookstove can help her justify the purchase to herself if money is tight. Messages such “At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months” should help justify the higher price as compared to other locally available cookstoves. If a “deal” is promoted such as a discounted price for savings groups or people making a savings commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.
- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Retailing through satisfied improved cookstove users in diverse markets can also help make the improved cookstove more accessible to these women. Retailers can give that person a small number of improved cookstoves to sell on consignment (or leave the unsold ones with them after auction day) helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. It should be easiest in urban areas to implement an arrangement whereby a group gets one improved cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent.
- In-store installment plans could possibly work for women in urban areas and small towns if the shops selling the improved cookstoves in these small towns are multi-purpose stores that also sell items that women purchase frequently like sugar, salt, and soap. If the shopkeeper actively encourages people to open an account and save a little each time they come in to purchase other products, the money could accumulate quickly. It could especially effective if the shopkeepers were to adopt a policy that no amount is too small and capture people’s “spare change” after a transaction, recording it toward the purchase of the improved cookstove. A punch card or other visual reminder that provides both a receipt and encouragement of progress toward goal could be an effective add-on to this.
- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the markets, at auctions, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women.
- At auctions or promotional events, retailers could give out savings boxes and register people for a commitment savings plan. For people living further away from retailers, there could be a regular delivery schedule (perhaps coinciding with auction day) for people who notify the retailer that they have completed their savings.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

10. Women who are salaried employees

Purchase likelihood and capability: high

These women are employed and have a regular, stable income of their own. They are likely—though not necessarily—to be better educated than other women in the area, and are generally living in urban areas and, to a less extent, in small towns. They are likely to be using charcoal already as a cooking fuel. Because their jobs may not easily accommodate blending childcare and cooking responsibilities the way that small business women can, they are more likely to have a relative living with them to help out with the children and domestic responsibilities. Transportation of the stove is less of a problem for them as they likely live only a short distance away from the shops selling the stoves, though they may live in peri-urban areas or small towns where the improved cookstoves are not sold. Because they have a significant income of their own, they are less cash constrained than most other categories of women and generally have more control over purchasing decisions—particularly for items related to the home.

Barriers that inhibit improved cookstove purchase

- Access to information: these women are likely to be the best informed about the improved cookstoves, but even they may not have seen them, heard about them, or stopped to inquire about them.
- Product placement: Like other women, they primarily shop in markets and the shops around the market. However, they are more likely to go into a shop—especially if it is close to their place of employment.
- Price anchoring: these more likely to have an idea in their minds of what an ordinary cookstove should cost based on prior experiences with metal cookstoves or seeing other cookstoves in the market. This can lead them to perceive the improved cookstoves as expensive, though relative to their incomes, it may not be as significant an effect.

Motivating factors that engender cookstove purchase

- They tend to have more cash readily available or to be able to accommodate the purchase of the improved cookstove within the next month's budget.
- They have a certainty of income that allows them to budget with confidence.
- They are likely to already be using charcoal and paying a relatively high price for it. This means that they would especially benefit from an improved cookstove that reduces their charcoal consumption and thus expenditure by 50 percent.
- Living in urban areas as they do, they may live in tighter quarters or have less access to outdoor space for cooking than rural women, so the cleanliness of the improved cookstove could be especially appealing to them.
- Although they may not be the ones doing the cooking, salaried women still reported the faster cooking times as important for them—if for no other reason that because their relatives complain less.
- Transportation of the improved cookstove is less of a problem for them as they live close to the retailers and can either carry it themselves or have the means to hire a boda boda driver to carry it a short distance.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should try to link saving money on charcoal with recovering the cost of the new cookstove. Messages such “At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months” should help justify the higher price as compared to other locally available cookstoves. If a “deal” is promoted such as a discounted price for savings groups or people making a savings commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.
- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the markets, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women. Weekends are a particularly good time to reach these women.
- Retailing through satisfied improved cookstove users in diverse markets can also help make the improved cookstove more accessible to these women. Retailers can give that person a small number of improved cookstoves to sell on consignment (or leave the unsold ones with them after auction day) helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).

11. Women who earn regular income from their small business

Purchase likelihood and capability: very high

These women have some sort of business activity which brings them regular income. Most often they are traders in the markets, but they are also running restaurants, providing services, and operating small shops. Their activity, while regular, is informal, giving them some flexibility to blend childcare and work, but they are still very time-constrained. They are more likely to live in urban and peri-urban areas as well as small towns than in rural areas. Their level of autonomy depends quite a bit on the relative importance of their income for the family and the level of involvement of their husbands in the business, but generally they have more decision-making power and freedom of movement than women without income of their own. The main exception to this being women whose husbands control the money and purchasing decisions in a business that they run.

Barriers that inhibit improved cookstove purchase

- Access to information: These women tend to move around more than women without income and so have more opportunity to be exposed to new technologies. However, they tend to be quite busy

Motivating factors that engender cookstove purchase

- They are highly time-constrained meaning that the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood are especially valuable to these women.

and have limited time to socialize or shop around. As such, they have limited access to information about the improved cookstoves unless they have a relative or friend who is using it.

- Product placement: Even if they live in urban areas or small towns where the improved cookstoves are being sold, they are highly time constrained with little time to shop around. They primarily shop in markets and the shops around the market where they often work. This may be just a small neighborhood market but it could also be a larger market or an auction market.
- Lack of reference price: These women report reluctance to approach shopkeepers without knowing the price, though they are quite open to inquire about prices in the market.
- Cash constraints: For the most part, these women have access to enough cash to make the purchase. However, cash can be tight for the smaller businesses or female-headed households in this group.
- Transportation: It's not as big of a problem for many of these women, but it was still cited as a barrier by some who live some distance away from the markets where they work.

- They are likely to be working outside the home, so the portability of the improved cookstove may appeal to them as it allows them to cook where they work and more seamlessly blend work and childcare responsibilities.
- These women generally have some decision-making power and control over the income they earn. Some may still consult with their husbands before making a significant purchase, but most have access to the cash necessary to buy the improved cookstove and do not need to negotiate for it.
- They are likely already using charcoal and contributing significantly to the household budget. Therefore, they can be motivated to save charcoal in order to stretch their resources and buy other things for the home.
- Cleanliness of the improved cookstove could be especially appealing to them as it saves them time.
- Quite a few women in the markets seem to use metal cookstoves that they have to replace frequently. Others are using the built-in clay ones at their homes that they have to repair frequently. For both groups, the durability of the improved cookstove could be a valued benefit because they will need to neither replace nor repair it frequently.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Proactive communications strategies are particularly important for these women because they are very busy and don't have time to shop around. Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should emphasize both the time-saving features of the improved cookstove and the way that it saves charcoal and money. Testimonials from other women about how it saves time and makes it easier for them to do everything they need to do in the day should be effective. Linking saving money on charcoal with recovering the cost of the improved cookstove can help her justify the purchase to herself if money is tight, but as these women don't tend to be educated to the degree that salaried women are, the messaging has to be very simple and practical such as "At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months" should help justify the higher price as compared to other locally available cookstoves. Being in business, these women are familiar with the gimmicks of marketing and like a deal. If a "deal" is promoted such as a discounted price for savings groups or people making a savings commitment, then both the "regular" and "discounted" prices should be given to help put a new reference price in people's minds and relieve the effects of

price anchoring somewhat.

- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Retailing through satisfied improved cookstove users in diverse markets can also help make the improved cookstove more accessible to these women. Retailers can give that person a small number of improved cookstoves to sell on consignment (or leave the unsold ones with them after auction day) helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- Although cash constraints should not be as bad for this group, they may still appreciate financing mechanisms that reduce the upfront cash outlay—especially if this prevents them from having to take cash out of their business to make the purchase. You can work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. It should be relatively easy in urban areas to implement an arrangement whereby a group gets one improved cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent and deliver them to the group in the market or other central place that is easy for them to access.
- In-store installment plans could possibly work for women small towns if the shops selling the improved cookstoves in these small towns are multi-purpose stores that also sell items that women purchase frequently like sugar, salt, and soap but they are less likely to work in urban or peri-urban areas where women mainly shop and work in the markets and won't want to leave their business to make installments. For the small towns, though, if the shopkeeper actively encourages people to open an account and save a little each time they come in to purchase other products, the money could accumulate quickly. It could especially effective if the shopkeepers were to adopt a policy that no amount is too small and capture people's "spare change" after a transaction, recording it toward the purchase of the improved cookstove. A punch card or other visual reminder that provides both a receipt and encouragement of progress toward goal could be an effective add-on to this. For women selling in markets who won't make an extra trip to deposit, the retailer could consider doing daily collections from women who sign up in advance. Alternatively, savings boxes with an individual commitment plan could work.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

12. Women who earn occasional and/or irregular income

Purchase likelihood and capability: high

These women do some kind of activity or activities to earn money. Rather than working regularly at the business, they tend to work opportunistically or only when they have a specific need for cash. They may work as day laborers in other people's gardens, sell produce from their gardens, brew and sell alcohol, or make and sell things for special events and festivals. They commonly live in small towns and rural areas where the economy is slower but they can also live in urban and peri-urban areas. In some cases, they mainly work to "top up" the money that their husbands give them because they find themselves needing more money to cover expenses. Their level of autonomy is generally less than women with a more steady income, but they do tend to have some discretion to spend the little money that they earn.

Barriers that inhibit improved cookstove purchase

- Access to information: These women tend not to travel much and do not have the same access to information about what is going on in the center of town. They are more reliant on their husbands for purchasing and thus do not have much access to information about the improved cookstove except through family, friends and neighbors.
- Product placement: Even if they live in urban areas or small towns where the improved cookstoves are being sold, they primarily shop in markets close to home or the main market and the shops around the market. They have little money of their own and so do not go into shops in town without something specific to buy.
- Lack of reference price: These women have less confidence because of their lower purchasing power and unlikely to just stop in and inquire about the price of something they see in a shop.
- Cash constraints: These women handle some money, but they are often very cash constrained. They primarily rely on the money that their husbands give them for purchasing household items but do have some supplemental money of their own.
- Decision-making: These women often must defer to their husbands for larger purchases. Because their incomes are small, their scope for decision without consultation is more limited than those with more regular or higher incomes.
- Transportation: These women often stay close to home and have limited access to means of transportation making the transport of the improved cookstove more of a challenge for them.

Motivating factors that engender cookstove purchase

- For those that aspire to have a more regular income but are limited by domestic responsibilities, they may be motivated by the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood.
- The portability of the improved cookstove may appeal to them as it allows them to cook where they work and more seamlessly blend work and childcare responsibilities and perhaps generating less resistance from their husbands to their working outside the home.
- These women generally have some decision-making power and control over the income they earn and have access to some cash. The cash they have on hand may not be enough to purchase the improved cookstove at once, but they can save.
- They are contributing to the household budget; and therefore, they can be motivated by charcoal savings that will allow them to stretch their resources and buy other things for the home.
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Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should emphasize both the time-saving features of the improved cookstove and

the way that it saves charcoal and money. Testimonials from other women about how it saves time and makes it easier for them to do everything they need to do in the day should be effective. Linking saving money on charcoal with recovering the cost of the new improved cookstove can help her justify the purchase to herself if money is tight, but as these women don't tend to be educated to the degree that salaried women are, the messaging has to be very simple and practical such as "At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months" should help justify the higher price as compared to other locally available cookstoves. If a "deal" is promoted such as a discounted price for savings groups or people making a savings commitment, then both the "regular" and "discounted" prices should be given to help put a new reference price in people's minds and relieve the effects of price anchoring somewhat.

- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the markets, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women.
- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Retailing through satisfied improved cookstove users in diverse markets can also help make the improved cookstove more accessible to these women. Retailers can give that person a small number of improved cookstoves to sell on consignment (or leave the unsold ones with them after auction day) helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- These women, who have little income, may feel that investing in this more expensive improved cookstove is a risk. If it does not end up saving them charcoal and money, they will have used a scarce resource poorly. So, having the right to return and get their money back if the improved cookstove does not perform according to expectations could reduce hesitancy.
- To address cash constraints faced by this group, working with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves should be effective as these women are often putting their extra income directly into savings. It should be relatively easy in urban areas to implement an arrangement whereby a group gets one cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent and deliver them to the group in the market or other central place that is easy for them to access.
- In-store installment plans could possibly work for women small towns if the shops selling the improved cookstoves in these small towns are multi-purpose stores that also sell items that women purchase frequently like sugar, salt, and soap but they are less likely to work in urban or peri-urban areas where women mainly shop in local markets. For the small towns, though, if the shopkeeper actively encourages people to open an account and save a little each time they come in to purchase other products, the money could accumulate quickly. It could especially effective if the shopkeepers were to adopt a policy that no amount is too small and capture people's "spare change" after a transaction, recording it toward the purchase of the improved cookstove. A punch card or other visual reminder that provides both a receipt and encouragement of progress toward goal could be an effective add-on to this.
- These women could be good candidates for individual savings boxes with a commitment plan.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

13. Women who are dependent upon seasonal agriculture for income

Purchase likelihood and capability: very low

These women have primarily engage in agriculture for own consumption and for sale. They generally live in rural areas in villages but may also live in small towns. They primarily live off of what they produce. When they need cash for an expense, they will usually work in someone else's garden or sell a little food or produce from the home. The bulk of the cash income comes from seasonal sale of cash crops which may be once or twice per year. As men typically control the bulk of the agricultural income, they have very little decision-making power or control over financial resources and minimal access to cash. They are likely to cook with firewood either over an open fire or with a clay oven.

Barriers that inhibit improved cookstove purchase

- Access to information: Because these women spend most of their time in rural areas tending their gardens, they do not have always have information about what is going on in the center of town. They tend to rely on their husbands for purchasing and thus do not have much access to information about the improved cookstove except through family, friends and neighbors. Because very few people in rural areas have the improved cookstove, even this source of information is very limited.
- Product placement: They tend to shop for little, relying on auction days in the nearest small town to buy what they do not produce or make occasional trip to general purpose shops in the nearest small town.
- Lack of reference price: These women have less confidence because of their lower purchasing power and have very little idea what an improved cookstove like this one should cost. They report not stopping to inquire even when they have seen the improved cookstoves because they do not believe they have enough money.
- Cash constraints: These women handle very small amounts money. They typically have to make a special effort to get money when they want to buy things.
- Decision-making: These women defer to their husbands for most significant purchases. If they are firewood users, it is unlikely that they will be able to make the decision to switch from firewood to charcoal without winning the support of their

Motivating factors that engender cookstove purchase

- During seasons when work is most intense in the gardens, they may be motivated by the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood especially as this would allow them to get food cooked even when they return late from the garden.
- The ability to cook inside when it rains may also be appealing.

husbands.

- Transportation: These women live in rural area and have very little access to transport.
- Switching costs/fuel costs: They have access to firewood that they can gather making it a low cost alternative to charcoal. They may be reluctant to switch to a fuel they must purchase.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Take advantage of monthly or weekly auction days to raise awareness of and sell the improved cookstoves.
- Promotional events could reach these women--especially if they are held near the auction markets on auction day, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women. It is important, however, that the improved cookstoves be available for purchase both at the time of the promotional event and at some predictable time afterwards so that people who become interested during the promotional event but do not have money to buy at that time can know when their next opportunity to purchase is and start saving toward that. The timing of the events may be important as well. If they are during the period from October through January, women may be able to ask their husbands for some of the money from the sale of cash crops to purchase the improved cookstove.
- In advance of the promotional event, auction day, or follow up sales opportunity, use radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where and when to purchase it can help overcome barriers to information and can help people prepare financially for the opportunity to buy. Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers can also be helpful in this regard.
- Both radio campaigns and posters should try to emphasize the value of women's time and how much time they will save cooking with the new stove as well as the health benefits for their families.
- Provide a sample improved cookstove to a village leader. It would be even better to do so in conjunction with a promotional event that is timed to coincide with village or sub-county meetings.
- Identify savings group leaders and coordinate a demonstration or talk with savings groups. Auction day demonstrations could be used to recruit savings group leaders and sign them up to save for the improved cookstove. The retailer could work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. Retailers could choose to offer improved cookstoves to savings group members after they have saved 50 percent and use delivery day as a promotional event to encourage more people in the community to buy or combine it with an auction day trip.
- At auctions or promotional events, retailers could give out savings boxes and register people for a commitment savings plan. There could be a regular delivery schedule (perhaps coinciding with auction day) for people who notify the retailer that they have completed their savings.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.
- Referral coupons with a guaranteed price can be used to encourage the spread of information person-to-person and instill confidence that they will be getting a fair price for the product. However, they need to be used in conjunction with other strategies that make it easier for people to access the improved cookstoves in their community.

14. Women who are entirely dependent on their husband for money

Purchase likelihood and capability: very low

These women are living with their husbands. They may or not be traditionally, religiously, or legally married, but this has little effect on their behavior. They have no income of their own and are dependent on their husbands for all spending money. They typically manage at least some small amount of household money for small purchases like foodstuffs, soap, clothing, cooking utensils, and charcoal but depend on their husbands to make larger purchases. Their husbands generally give them only the bare minimum necessary for household items and would question any more significant purchase they made—even if they saved for it. They generally have less freedom of movement than other women.

Barriers that inhibit improved cookstove purchase

- Access to information: These women tend to stay close to home. They will typically get information from relatives and friends, and their husbands may limit or control even their access to these people. Therefore, they will have little information or awareness of the improved cookstoves unless their relatives, friends, or neighbors have one.
- Product placement: Even if they live in urban areas where the improved cookstoves are being sold, they primarily shop in markets close to their homes, auctions (in small towns) and the shops around the main market in Kitgum (urban and peri-urban). They rarely go to shops and therefore may not have seen or been aware of the improved cookstoves.
- Lack of reference price: These women make large purchases very seldom, if at all. If they perceive that the improved cookstoves are a “large” purchase—meaning that they are outside the price range that they can spend without asking for money from their husbands or raising questions—they may not approach the retailer at all. They report reluctance to approach shopkeepers without having a sense of the price because they don’t think that they have enough money.
- Cash constraints: Because they depend on an allowance from their husbands to meet household expenditures, they generally have very little money left over after meeting household expenses. Men generally do not bring their whole salary or earnings home, so even if the household income is

Motivating factors that engender cookstove purchase

- They are interested in stretching their household resources as far as possible. They will appreciate that the improved cookstove saves money and charcoal, though the impact of this may be muted if their husbands reduce their contributions to the household budget now that charcoal expenditures are reduced.
- They will also appreciate the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood. They may find that they feel less pressure in balancing their home responsibilities with other work such as gardening when they don’t have to feed the fire and the food can cook more quickly.
-

reasonably good, a woman may not have access to enough cash to make the cookstove purchase.

- Decision-making: Is a major barrier. She is only able to decide over that portion of the overall household income which is given to her by her husband—usually an amount so small as to leave little for savings after purchasing necessities.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information. Additionally, radio campaigns and posters can be helpful in gaining support from their husbands as this will almost certainly be necessary.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters need to provide arguments that appeal to both men and women as these women most likely won't be making decisions alone. As such they should emphasize both the time-saving features of the improved cookstove and the way that it saves charcoal and money. Testimonials from other women about how it saves time and makes it easier for them to do everything they need to do in the day should be effective for women. Messages about stretching money and reducing expenses should appeal to both men and women. Likewise, linking saving money on charcoal with recovering the cost of the new improved cookstove can help her justify the purchase to her husband. Messages such "At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months" should help justify the higher price as compared to other locally available cookstoves. If a "deal" is promoted such as a discounted price for savings groups or people making a savings commitment, then both the "regular" and "discounted" prices should be given to help put a new reference price in people's minds and relieve the effects of price anchoring somewhat.
- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Retailing through satisfied improved cookstove users in diverse markets can also help make the improved cookstove more accessible to these women. Retailers can give that person a small number of improved cookstoves to sell on consignment (or leave the unsold ones with them after auction day) helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- These women, who have little income, may feel that investing in this more expensive improved cookstove is a risk. If it does not end up saving them charcoal and money, they will have used a scarce resource poorly. So, having the right to return and get their money back if the improved cookstove does not perform according to expectations could reduce hesitancy.
- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the markets, at auctions, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women.
- At auctions or promotional events, retailers could give out savings boxes and register people for a commitment savings plan. This would likely be something women would undertake with the blessing and support of her husband, but events could be a way to get both spouses on board. For people living further away from retailers,

there could be a regular delivery schedule (perhaps coinciding with auction day) for people who notify the retailer that they have completed their savings.

- Some of these women can and do save, so working with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves could help. Credit would be especially helpful for these women, however. Because their funds are so limited, getting the improved cookstove before fully paying for it would help them pay for it. In urban areas, it should be possible to implement an arrangement whereby a group gets one improved cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent.
- In small towns if the shops selling the improved cookstoves are multi-purpose stores that also sell items that women purchase frequently like sugar, salt, and soap, women might be able to save a little with the retailer. If the shopkeeper actively encourages people to open an account and save a little each time they come in to purchase other products, the money could accumulate quickly. It could especially effective if the shopkeepers were to adopt a policy that no amount is too small and capture people's "spare change" after a transaction, recording it toward the purchase of the improved cookstove. A punch card or other visual reminder that provides both a receipt and encouragement of progress toward goal could be an effective add-on to this. This would reduce the risk that women's savings are detected or taken by the husband.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

15. Women who use inefficient, charcoal, metal stoves

Purchase likelihood and capability: high

These women typically use clay or mud cookstoves that are built inside or outside their homes. These clay or mud cookstoves were widely disseminated by NGOs during the period when a large portion of the population was living in IDP camps during the conflict. They were promoted as more efficient alternative to cooking on and open fire and more feasible to use for families that were in camps and did not have safe or easy access to firewood. However, studies have shown they are no more fuel efficient than traditional open fires or "trench" fires. They are found in urban, peri-urban, small towns, and rural areas. Users also come from all income and marital status segments. Women from lower income segments and in rural areas and small towns sometimes burn firewood as well as charcoal in these stoves.

Barriers that inhibit improved cookstove purchase

- Access to information: Depending on where they live and other factors, metal stove users may not be aware of the new improved cookstoves. Even if they have seen them, they are unlikely to know about the "improved" features that make it better than their old stove unless a friend, relative, or neighbor has told them.
- Product placement: Unless the stoves are being sold in the same shops where metal stoves are already

Motivating factors that engender cookstove purchase

- They are using charcoal and paying a relatively high price for it. The most common metal stoves are quite inefficient in that they do not conserve heat meaning that they must be fed constantly with charcoal to cook. These women, therefore, would especially benefit from an improved cookstove that reduces their charcoal consumption and thus expenditure by 50 percent.
- Because metal stoves require frequent feeding with fresh charcoal, women will especially appreciate the

being sold, metal stove users may not see the improved cookstoves when it is time to buy a new one. Metal cookstoves are typically sold in the markets and places where other metal products are sold and manufactured.

- Cash constraints: Because the users are in urban areas, they may be buying most, if not all, of their food. Charcoal prices, too, are higher in urban areas, which may squeeze household budgets and make it to buy the improved cookstove at once.
- Price anchoring: Metal cookstove users are used to buying cookstoves, but because a metal stove costs roughly 1/3 to 1/2 of the cost of the improved cookstove, they are also likely to perceive the improved cookstoves as very expensive because they are comparing them to the cost of the metal stove.

time savings from faster cooking time and not having to feed the fire.

- They have to replace their metal stoves frequently (every 6 to 12 months), so most will be shopping for a replacement in the next year anyway. When their old stove wears out, it is a natural time to upgrade as they were going to have to spend at least some money on a stove anyway.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should try to link saving money on charcoal with recovering the cost of the new cookstove as well as saving time by feeding the fire less frequently. Messages such “At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months” should help justify the higher price as compared to other locally available cookstoves and should appeal to both men and women. For women in particular, messages about being able to fill the improved cookstove once with charcoal and come back to find your food is fully cooked could be especially effective with this group. If a “deal” is promoted such as a discounted price for savings groups or people making a savings commitment, then both the “regular” and “discounted” prices should be given to help put a new reference price in people’s minds and relieve the effects of price anchoring somewhat.
- Have someone selling it in the markets in Kitgum and Pader either permanently or walking around with it during busy times and then referring people to the retailers.
- Promotional events to draw the attention of a crowd can also work well for these women—especially if they are held near the markets, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women.
- Those with lower incomes may feel that investing in this more expensive improved cookstove is a risk. If it does not end up saving them charcoal and money, they will have used a scarce resource poorly. So, having the right to return and get their money back if the improved cookstove does not perform according to expectations could reduce hesitancy. The right to return could even be part of an advertised promotion—a cookstove challenge where people who buy the improved cookstove can return it within a week or two if they find it does not save them charcoal as promised.

- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. It should be easiest in urban areas to implement an arrangement whereby a group gets one improved cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

16. Women who use built-in, clay or mud stoves

Purchase likelihood and capability: moderate

These women are currently using a metal stove to cook at least part of the time. Because metal stoves tend to consume a lot of charcoal, these women may mix metal charcoal stove use with firewood use if they have easy access to firewood. It is women who live in the larger urban centers like Kitgum and Pader and the peri-urban areas around them that are most likely to be using the metal stove. Women in small towns may also use it. Single people or those living away from their spouses temporarily may also favor metal stoves for their portability.

Barriers that inhibit improved cookstove purchase

- Access to information: These women appeared to have little information about them unless they had a neighbor or a relative using them, although some reported having heard about them on the radio. Even if they had heard about them, most did not know specifically where they could go to get them. Unless they had heard about them on the radio or from a friend, some of these women tended to believe that their clay cookstoves were already efficient.
- Product placement: Like most women, these women report that they do most of their shopping in small neighborhood markets close to their homes or in the main markets and auctions. They do not often go into other shops in town unless they are buying something specific and have been told where to go.
- Lack of reference price: Because they probably either built their clay cookstoves themselves or had someone built it for them for a very low cost, these women have little idea how much any cookstove should cost, and, like most women, were reluctant to enter into a discussion with a shopkeeper without a sense of price.

Motivating factors that engender cookstove purchase

- They are likely to already be using at least some charcoal and paying a relatively high price for it. Many of those interviewed reported using firewood only when they could not afford charcoal or ran out. Having an improved cookstove that reduces their charcoal consumption by 50 percent will make cooking with charcoal more affordable for them and may allow them to cook with charcoal all the time.
- Quite a few of these women reported going back and forth to their village gardens with some regularity. They may see the portability of the improved cookstove an attractive feature, especially if they are using built-in clay stoves.
- These women have to repair their stoves once a month or so. The durability of the improved cookstove could be attractive to them.
- They will also appreciate the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood (if they are using it).

- Price anchoring: They are likely to have very little idea in their minds of what any cookstove should cost as they haven't bought theirs, but if they do have a price in mind, it will be a low one. This can lead them to perceive the improved cookstoves as very expensive.
- Switching costs/fuel costs: Most of them did not buy and perhaps did not even pay to have their current stoves built. In some cases, they are using a mix of charcoal and firewood in them. Thus investing in the purchase of a new stove more of an investment for them, and they may perceive a reduction in flexibility in terms of the type of fuel they use with the new stove.

Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Referral coupons with a guaranteed price are a good way to encourage the spread of information person-to-person and at the same time instill confidence that they will be getting a fair price for the product.
- Radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where to purchase it can help overcome barriers to information.
- Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers.
- Both radio campaigns and posters should focus both on time savings and linking saving money on charcoal with recovering the cost of the new cookstove. Messages such "At only 19,000 shillings, this cookstove pays for itself in charcoal savings in less than 2 months" should help justify the investment. Portability can also be emphasized. If a "deal" is promoted such as a discounted price for savings groups or people making a savings commitment, then both the "regular" and "discounted" prices should be given to help put a new reference price in people's minds and relieve the effects of price anchoring somewhat.
- Identify a satisfied improved cookstove user who is already selling in the neighborhood market and/or a part of neighborhood savings groups. Retailers can give that person a small number of improved cookstoves to sell on consignment helping to reduce barriers to information and product placement as well as eliminating transportation as a barrier for the consumer (though transportation costs still need to be factored in for the retailer and local salesperson).
- Retailers could organize a weekend promotional event led by the newly recruited local salesperson. Retailers could supply a sign, a T-shirt, and maybe some promotional item or food to support the launch of the new salesperson and let that person take care of the rest. Demonstrations can be important to show that the improved cookstoves are sturdy and really do cook faster than other cookstoves.
- For more rural and small town settings—particularly where the improved cookstove is not currently available on a permanent basis, giving an improved cookstove to savings group leaders to demonstrate and test out with their groups can give women the firsthand experience they may need to overcome doubts.
- Because these women are not currently spending money on buying cookstoves, they may feel that investing in the improved cookstove is a risk. If it does not end up saving them charcoal and money, they will have wasted money. So, having the right to return and get their money back if the improved cookstove does not perform according to expectations could reduce hesitancy. The right to return could even be part of an advertised promotion—a

cookstove challenge where people who buy the improved cookstove can return it within a week or two if they find it does not save them charcoal as promised.

- To address cash constraints, work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. In combination with the local salesperson strategy, it should be possible to implement an arrangement whereby a group gets one improved cookstove per week for a member. Alternatively, shopkeepers could choose to offer improved cookstoves to savings group members after they have saved 50 percent, organizing special free delivery to the group as an incentive for members to join in and keep to the commitment.
- Retailers could promote the use of a home savings box, giving people who come in to register a free box. As an added incentive, if the person gets 3 or more other people in their neighborhood to sign up, the retailer could provide free delivery of the stove once everyone in the registered group has completed their savings goal. This would be a way of getting people to recruit others, applying a mild level of social pressure for everyone to finish saving so everyone can get their stoves, and reducing transportation costs by batching orders for delivery.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.

17. Women who primarily utilize firewood for cooking fuel

Purchase likelihood and capability: low

These women use firewood as their primary fuel. They will either cook over an open fire or a clay oven or stove in which they use the firewood.

Women using exclusively firewood mainly live in rural areas and small towns where firewood is relatively easy to collect. Although some women living in peri-urban and urban areas also use firewood, they are more likely to mix firewood and charcoal use depending on which is more affordable or accessible at the time.

They primarily engage in agriculture for own consumption and for sale and do some small activities for cash when needed. The bulk of the cash income for the household will usually come from seasonal sale of cash crops which may be once or twice per year. As men typically control the bulk of the agricultural income, these women (if married) may have very little decision-making power or control over financial resources and minimal access to cash.

Barriers that inhibit improved cookstove purchase

- Access to information: Because these many of these women spend a significant part of their time in rural areas tending their gardens, they do not have always have information about what is going on in the center of town. They tend to rely on their husbands

Motivating factors that engender cookstove purchase

- Health and the effects of the reduction in smoke on health is a major motivating factor for these women (and also some men). Many of the households we spoke to were very aware of the impact of smoke on their health.

for purchasing and thus do not have much access to information about the improved cookstove except through family, friends and neighbors. Because very few people in rural areas have the improved cookstove, even this source of information is very limited.

- Product placement: They tend to shop for little, relying on auction days in the nearest small town to buy what they do not produce or make occasional trip to general purpose shops in the nearest small town.
- Lack of reference price: These women have less confidence because of their lower purchasing power and have very little idea what an improved cookstove like this one should cost. They report not stopping to inquire even when they have seen the improved cookstoves because they do not believe they have enough money.
- Cash constraints: Most of these women handle very small amounts money. They typically have to make a special effort to get money when they want to buy things.
- Decision-making: If they are married, it is unlikely that they will be able to make the decision to switch from firewood to charcoal without winning the support of their husbands, even if they are able to save for the purchase of the improved cookstove.
- Transportation: These women often live in rural areas and have very little access to transport.
- Switching costs/fuel costs: They have access to firewood that they can gather making it a low cost alternative to charcoal. They may be reluctant to switch to a fuel they must purchase.

- During seasons when work is most intense in the gardens, they may be motivated by the time savings from faster cooking time, not having to feed the fire, and not having to gather firewood especially as this would allow them to get food cooked even when they return late from the garden.
- The ability to cook inside when it rains may also be appealing.
- In some areas, firewood is becoming scarcer and people must go longer distances to find it make a switch to charcoal more attractive.
- Some of these communities make charcoal or the women know someone who makes charcoal. If only a little charcoal is needed to cook, then they can continue to make and sell charcoal, keeping only the little they need for themselves.
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Sales and Marketing Strategies for Overcoming Barriers and Tapping Motivation

- Take advantage of monthly or weekly auction days to raise awareness of and sell the improved cookstoves.
- Promotional events could reach these women--especially if they are held near the auction markets on auction day, after church, or in conjunction with other special activities such as vaccination campaigns that are likely to draw large numbers of women. It is important, however, that the improved cookstoves be available for purchase both at the time of the promotional event and at some predictable time afterwards so that people who become interested during the promotional event but do not have money to buy at that time can know when their next opportunity to purchase is and start saving toward that. The timing of the events may be important as well. If they are during the period from October through January, women may be able to ask their husbands for some of the money from the sale of cash crops to purchase the improved cookstove.

- In advance of the promotional event, auction day, or follow up sales opportunity, use radio advertisements highlighting the benefits of the improved cookstoves and letting them know both the price and where and when to purchase it can help overcome barriers to information and can help people prepare financially for the opportunity to buy. Posters with information in the local language and pictures can be placed where women frequently go such as markets, schools, churches, and health centers can also be helpful in this regard.
- Both radio campaigns and posters should try to emphasize the value of women's time and how much time they will save cooking with the new stove as well as the health benefits for their families.
- Provide a sample improved cookstove to a village leader. It would be even better to do so in conjunction with a promotional event that is timed to coincide with village or sub-county meetings. Engage local council leaders to spread the word to both women and men through community meetings.
- Identify savings group leaders and coordinate a demonstration or talk with savings groups. Auction day demonstrations could be used to recruit savings group leaders and sign them up to save for the improved cookstove. The retailer could work with savings groups to implement either a special savings fund for the improved cookstoves or lending for improved cookstoves. Retailers could choose to offer cookstoves to savings group members after they have saved 50 percent and use delivery day as a promotional event to encourage more people in the community to buy or combine it with an auction day trip.
- At auctions or promotional events, retailers could give out savings boxes and register people for a commitment savings plan. There could be a regular delivery schedule (perhaps coinciding with auction day) for people who notify the retailer that they have completed their savings.
- Whatever arrangements are offered to help finance improved cookstove purchases—whether credit or savings—in order to be effective, they should be advertised so that people know about them as people have demonstrated that they are reluctant to inquire about payment plans.
- Referral coupons with a guaranteed price can be used to encourage the spread of information person-to-person and instill confidence that they will be getting a fair price for the product, however they need to be used in conjunction with other strategies that make it easier for people to access the improved cookstoves in their community