



WISDOM INNOVATIONS CASE STUDY

WHERE ARE
THE WOMEN IN
THE ENERGY
SECTOR?



WPOWER

PARTNERSHIP ON WOMEN'S
ENTREPRENEURSHIP IN RENEWABLES



Prioritizing women's engagement across the household clean energy value chain is critical to the success of any grassroots initiative in sub-Saharan Africa and parts of Asia. The two most important aspects of this goal remain building an evidence base of why this engagement is necessary, and how the leap from understanding women's vital roles into action can be made. The Partnership on Women's Entrepreneurship in Renewables (wPOWER) is a champion for promoting women as key change agents to achieve the Sustainable Development Goal 7 (ensuring access to affordable, reliable, sustainable and modern energy for all) and works to build evidence, promote best practices, and advocate for women in clean energy entrepreneurship.

wPOWER, under this series "**Where are the women in the energy sector**", has two goals - first, to share the evidence that exists that makes the business case for women involvement across the energy value chain and second, to highlight various approaches and best practices in recruiting, retaining, and promoting women within the energy industry. The series makes a case for building on the 'why' of gender inclusiveness and the 'how' to showcase shining examples on where it's been done successfully. The tipping point for gender inclusiveness is here - we tell you why, where and how.

Women's Participation in a Sustainable Clean Cooking Business Model

The need for clean and affordable energy is a key component in the achievement of Sustainable Development Goal 7. It is with this in mind that Wisdom Innovations, a Kenya based organization, undertook a six-month pilot project with an aim to increase the number of women accessing improved cookstoves through flexible and affordable payment plans.

The project, referred to as the *informal cookstove consumer finance model* was funded by the United States Agency for International Development (USAID) and Winrock International. The pilot project, under the Developing a Sustainable Cookstove Sector (DSCS) Program, ran from October 2016 - April 2017, providing customers without access to formal banking or financial networks, with flexible, affordable and sustainable payment options for the purchase of improved cookstoves.

This case study will provide an overview of the project with its focus on inclusion of women - its challenges, accomplishments and lessons learnt.

What is Wisdom Innovations?

Wisdom Innovations is a cookstoves' manufacturing facility based in Nairobi, Kenya, that designs, manufactures, and sells a natural draft gasifier stove referred to as the Wisdom jiko (Wisdom stove). The stove is constructed from mild steel, galvanized steel, stainless steel and ceramic liners, and is designed to cook meals for a family of up to 10 people. It uses dry non-carbonized biomass such as firewood, briquettes, pellets, dry cow dung & maize cobs.

Offering clean, affordable, and eco-friendly cooking energy to customers living in highland areas, this stove has been designed to disperse a significant amount of heat in the home when operated. Through this, households are equipped with both cooking and heating capabilities. To date, Wisdom Innovations has sold over 3,700 of these stoves across four counties in South West Kenya: Kiambu, Nyandarua, Narok, and Nakuru.

What were the Challenges Experienced?

Wisdom Innovations made their first sale of cookstoves in 2012. This was done through a marketing based model which involved open air public demonstrations of the stoves

in local markets. However, the initial adoption of their stoves was low. This was due to the following reasons:

- 1. Absence of end-users at public demonstrations of cookstoves:** Men typically control household finances in Kenya, and were therefore the ones who attended the demonstrations (comprised up to 85% of the audience) and bought the stoves. This resulted in poor transfer of knowledge to the end-consumer i.e. the women, on how the stoves worked.
- 2. Bias against male customer service agents:** Initially, the Wisdom Innovations customer service team were mostly men. This created a barrier in conducting follow-ups and post-sales' data collection (regarding stove performance) as the male heads of the households were not receptive to men customer service employees engaging with their wives or women in the household.
- 3. Lack of flexible financing options** (such as Pay-Go) prevented low-income users from purchasing the stove.



A Wisdom Stove demonstration where both women and men were targeted

Initial Approach to Increase Adoption of Stoves

To address these challenges, Wisdom Innovations made two changes to their strategy: first, they focused their marketing strategy on engaging the end user (women), and second, they offered access to finance to meet the needs of low-income households. The latter was achieved by partnerships with two microfinance institutions (MFIs) that had established links to women's groups. However, this approach was soon faced with implementation hurdles that made it impossible to sustain the partnerships with the MFIs. These hurdles included;

1. Restricted access to customer data, even though MFIs had originally agreed to share this data with Wisdom Innovations. This prevented adequate post-sales follow-up, maintenance support, and data collection.
2. Lack of ability and initiative by MFIs to demo the stove and conduct customer support, despite technical training from Wisdom Innovations.
3. High interest loans from MFIs (upto 22%), making it expensive for customers to purchase cookstoves in the long run.

What was the New Approach Taken?

It was during this period of partnership that Wisdom Innovations received a grant from USAID and Winrock International, and decided to formalize an approach for including women at every stage of the project.

The new strategy was a success, and at the end of the project, with the targeted focus on employing women and also focusing on them as customers, cookstove sales at Wisdom Innovations increased by over 120%, from approximately 45 cookstoves per month to over 100 every month. This can be attributed to the following factors:

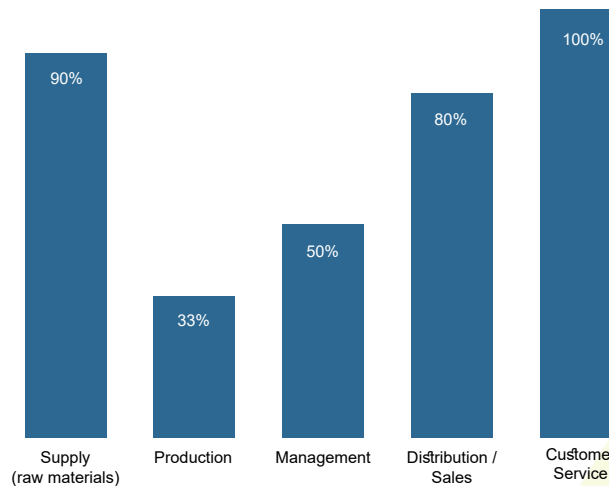
- **Inclusion of Women Across the Value Chain**
Realizing the value of women as partners and key stakeholders, Wisdom Innovations integrated them in the following areas of the supply chain:

- **Design:** Wisdom Innovations has incorporated the feedback of women in the design stage of the cookstoves, and their stove has evolved largely due to women's input. For instance, feedback on the stove's inability to burn wet wood (which is critical during rainy seasons), informed the decision to adjust the amount of air fed into the stove when in use.
- **Production:** Wisdom Innovations has actively engaged women in stove manufacturing. Anecdotal evidence suggests that women finish products with more meticulousness, thus leading to better quality compliance.



Ann Njeri in the Wisdom Innovation's workshop

- **Sales/Distribution:** Initially, marketing to women's groups was conducted by male staff, who received poor reception from women. This caused Wisdom Innovations to switch strategies, focusing on using women as last mile entrepreneurs and sales agents to market the stoves at scale. This strategy has resulted in increased receptivity from women's groups.
- **Customer Service:** During the project, Wisdom Innovations learned that women customers felt uncomfortable receiving customer support calls from male staff. Some women reported being victims of violence from their partners as a result. This led to the decision to have women as customer service agents, and distributors. This model of recruiting local women as customer service agents worked well because of four main reasons: They i) understood the socio-economic dynamics of their communities, ii) were more easily accepted, listened to and trusted by the members of their communities, and could in turn coordinate more easily with women's groups, iii) have greater familiarity with the potential customers, and iv) save on transportation costs associated with customer services if they are locally based.



Current distribution of women across the value chain at Wisdom Innovations

• **Women's Networks**

As part of the project, Wisdom Innovations leveraged women's groups that were not affiliated with microfinance institutions. They carried out monthly demonstrations where members applied for a microloan in order to acquire the stove. While the group members acted as guarantor's for each other, the group savings ultimately became the security for members who acquired the stove on credit.

Wisdom Innovations worked with existing women's groups (including Gutoria Group, Osotwa Group, Kambi Njeru, and Ewangan Enaibebebe) across the four counties. They had a customer conversion rate (group members converted to customers) of 67% with a marginal default rate of 4.3%. The fear of social exclusion due to failure of paying back loans, is cited as the main reason for the low default rate.

In addition, the group treasurers worked closely with Wisdom Innovations to ensure the payment schedule was maintained.

Engaging the community and leveraging women's networks was an important enabling factor in the successful implementation of the project. It also reinforces wPOWER's best practice principle of working with women's networks to support adoption of clean energy technologies.



Wisdom Innovations women's group meeting

• **Access to Finance**

While Wisdom Innovations core business is in stove manufacture and distribution, they identified lack of availability of affordable financing as a barrier to the adoption of these stoves. They now offer a flexible payment plan for microloans provided with only 3% interest rate, allowing rural women to adopt clean cooking solutions, irrespective of their economic status.

Key Findings

1. Women play a critical role as key drivers in the household clean energy supply chain.
2. Recruitment of women as local sales and customer service agents provides insight into the local dynamics of the communities they work in.
3. Working with established women's networks promotes sustainable adoption of clean energy technologies.
4. Providing access to affordable finance is essential in ensuring clean cooking solutions are made available to low-income households.

Moving Forward

Phase I: Wisdom Innovations will be training 30 women as last-mile entrepreneurs, who will act as points of contacts in their respective communities, serving as distribution agents and providing customer support. These 30 women have been selected from their customer base and have shown keen interest in the product and the clean cooking sector. They will undergo a six-day Empowered Entrepreneur Training, as well as technical training on the features and dynamics of the stove. After the training, 15 of the women will be employed as Wisdom Innovations staffers (in charge of marketing, distribution and customer service) while the other 15 will serve as sales agents.

Phase II: In 2019, Wisdom Innovations aims to

scale production targeting close to 2500 stoves per month, with 200 trained women working as last-mile entrepreneurs. They will also transition towards a dealership model, where their stoves can be sold by individual women-owned shops rather than sales agents. The goal is to expand their distribution capacity while reducing the customer acquisition costs. They are also targeting to reach all counties in Kenya by 2019.

Summing Up

The Wisdom Innovations project has shown that the inclusion of women across the value chain is imperative, if sustained adoption of clean cooking solutions is to be achieved. Under the pilot project, women participated in all parts of the value chain - from decision making and technical production, to managing sales and customer service. Implementers, therefore need to target women in all areas of employment and entrepreneurship and not limit their role in any particular segment.

This is not to say that ensuring gender-inclusiveness in the sector is an easy task. Deep-rooted prejudices, and customs pose as additional barriers to women's participation. For many, the role of women is to run the household; not to participate in demanding tasks like production or spearhead entrepreneurship initiatives. However, with commitment and focus, women can become an integral part of operations, just as they have at Wisdom Innovations.

Mainstreaming women into different segments of the energy chain is a win-win for everyone:

for women, their families and the enterprises. At wPOWER, we believe in the integration of women at all areas of the household clean energy value chain, and urge all organizations conducting grassroots initiatives to make a conscious effort to address gender based inequalities and promote inclusivity at all junctures. wPOWER promotes 8 principles of best practice that underscore success in clean energy entrepreneurship, which we urge practitioners to follow to witness success in the sector.

References

1. *Jiko refers to stove*
2. *The ability to burn wet wood depends on the amount of primary air that is fed into the stove.*

About wPOWER

The Partnership on Women's Entrepreneurship in renewables is a US-Department of State funded project, with a mission to promote the central role that women must play in clean energy entrepreneurship and in addressing climate change, and a vision to empower 8,000 women in clean energy entrepreneurship to deliver clean energy access to 3.5 million people globally by 2018.

All images are credited to wPOWER and BURN Manufacturing.

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WISDOM
Innovations

Sustainable heating energy
for households