

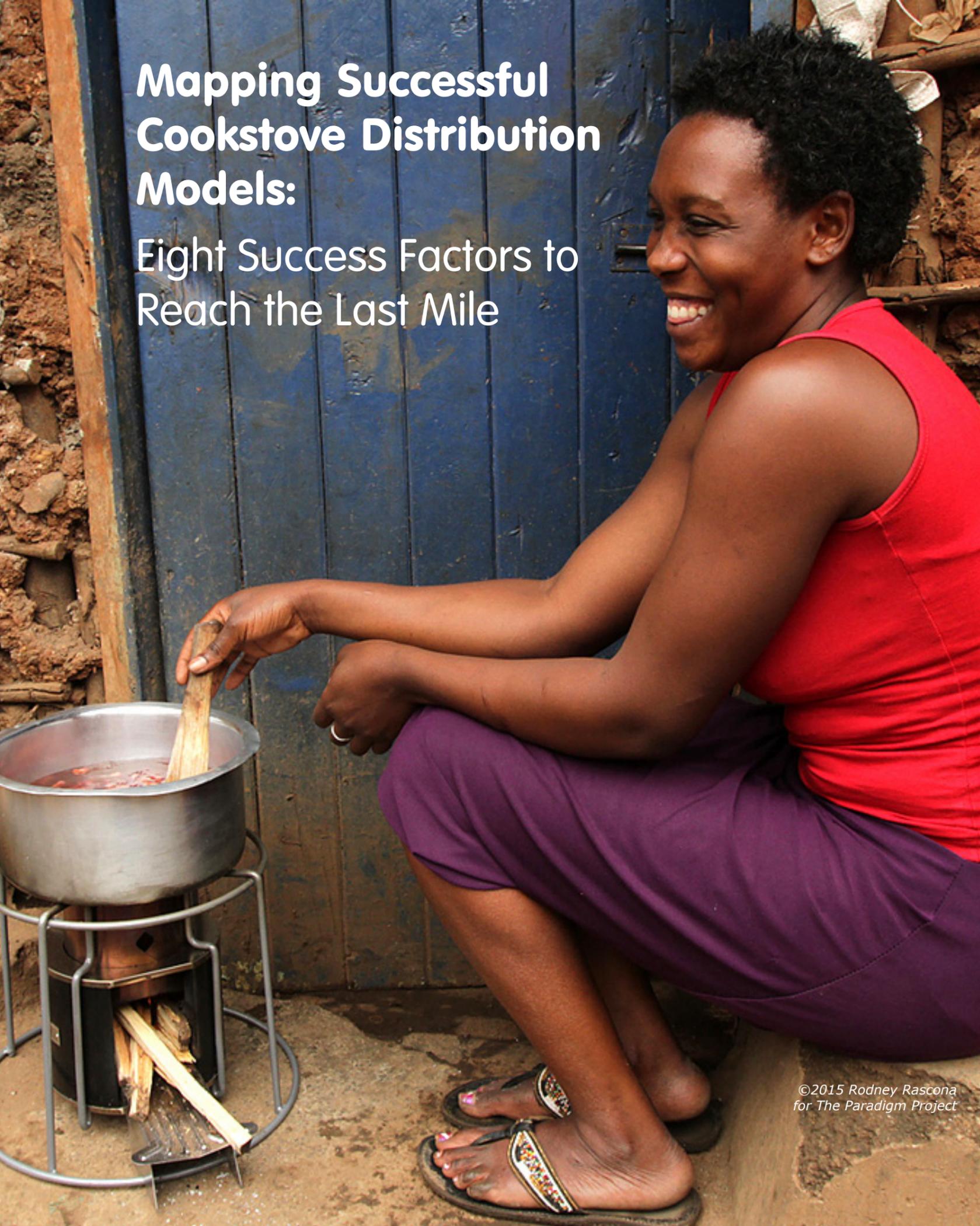
Mapping Successful Cookstove Distribution Models:

Eight Success Factors to Reach the Last Mile



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While significant progress has been achieved over the past decades, the lack of access to clean cooking devices remains one of the world's most pressing social, economic and environmental issues, with three billion people still without access to safe cooking solutions. Due to reliance on open fires and solid fuels like wood, charcoal and dung, traditional stove users are facing negative health, environmental and socio-economic impacts on a daily basis, despite there being knowledge to produce clean, efficient and affordable stoves. By 2030, an additional 100 million people will be relying on traditional cooking devices, resulting in more premature deaths, lost natural resources and purchasing power, with repercussions for communities and countries at large. It is estimated that air pollution from inefficient stoves kills more people than tuberculosis, HIV/AIDS and malaria. Women and children are particularly affected. Furthermore, the emissions from traditional cooking, furthermore, are a large contributor to climate change.

In the face of this bleak picture, a handful of impactful initiatives of clean cookstove dissemination have sprouted across the globe. If the lessons learned from successful initiatives can be shared widely, widespread access to safe, efficient and affordable stoves to households and businesses at the Bottom of the Pyramid (BoP) is feasible. Establishing a global market for clean cooking solutions can help bridge the gap from the 14.3 million improved cookstoves distributed in 2013¹, to the 100 million targeted by the Global Alliance for Clean Cookstoves by 2020, and lift the barriers that hamper the access to safe cooking technologies for all.

With this goal in mind, SNV, Practical Action Consulting, and the Alliance, using their long-standing experience in the sector, have identified three models and eight success factors for wide-ranging distribution of clean cookstoves at the BoP. Looking at ten distribution initiatives chosen for their ability to reach a large number of people through innovative and sustainable distribution strategies, some promising approaches have emerged. Several relevant non-cookstove initiatives have been considered and analyzed as well. Adopting a broad outlook on what market strategies have worked and where, this brief introduces systematic thinking that will help producers, distributors, donors, and non-governmental actors scale up current efforts to ensure access and adoption of clean cooking technologies for all.

¹ 2013 results report, Global Alliance for Clean Cookstoves

Three models to address local challenges and needs

On the basis of ten case studies spread across Africa, Asia and Latin America, SNV, Practical Action Consulting, and the Alliance have identified three distribution models capable of significantly boosting the BoP's access to clean cooking solutions within reasonable costs.

The first of these models, the **Village Level Entrepreneur (VLE)** model, is one that is enhanced by its use of local resources and its scalability in rural areas. Tested out by several groups including Living Goods in Uganda, the Health Keepers Network in Ghana, and Soluciones Comunitarias in Guatemala, the VLE model leverages local entrepreneurs to distribute products such as clean cookstoves in isolated communities. Instead of creating a costly new market infrastructure with a foreign sales force, the VLE model identifies entrepreneurs and artisans at the village level, and uses their direct knowledge of their communities to distribute products at limited costs. With enough support and oversight, these local entrepreneurs can effectively market new products to their peers while boosting their incomes. The **Health Keepers Network (HKN)**, for example, employs a micro-franchise model that uses VLEs or "HealthKeepers" -primarily women- that are remunerated to go door-to-door and sell goods, including portable cookstoves, within their communities. Trained on themes like sales, business

management, health promotion, and the use of the products themselves, these Health Keepers can raise the awareness and provide advice to their customers, forming a very effective sales force. **LivingGoods** is another striking example, hiring local women as entrepreneurs in part-time positions and providing them with a free "business in a bag" set that includes uniforms, signs, a locker, and basic health and business tools. They also offer their entrepreneurs regular training and coaching and a below-market inventory loan, to sell products including cookstoves around their community. Though very effective, the VLE model requires that enterprises limit the risks taken on by the local entrepreneurs. It is important that there is sufficient demand for the products being sold and enterprises may consider offering some form of financial compensation beyond their commission.

In areas where demand is low, the **piggyback model** might be the best option. In this model NGOs or stove distributors partner with supermarkets, hardware stores, microfinance institutions or other community-based organisations that are already operating in last mile markets. The piggyback strategy, by focusing on existing networks rather than individuals, opens a wide range of possibilities for partnerships and pooling customers. Depending on the characteristics of the targeted area and whether incentives can be

aligned, some creative options can be explored. **SunnyMoney**, a social enterprise importing energy-efficient solar devices from China, sells products across East and Southern Africa by using relationships developed with schools and education systems. Sunny Money takes advantage of the trust placed in headteachers and their link to an important target market: families with school-age children who can benefit from solar energy products. Another inspiring example is the **International**

Lifeline Fund, which sells affordable stoves to vulnerable populations, including in various urban and rural locations in Uganda. ILF partners with supermarkets, not-for-profits, women's groups and entrepreneurs, which all receive the stoves at a subsidized price, in addition to free training and promotional material. With low investment costs and limited need for additional infrastructure, the piggyback model represents an attractive option to reach the last mile.



Improved cookstoves awareness campaign in Kampala. Credit : Mark Turgesen

A third possibility, particularly suited to introduce a wider range of products into urban and peri-urban communities, is the **proprietary sales network**. More time consuming and cost intensive than the other two, the proprietary sales network model requires setting up a new proprietary distribution channel, including a direct hire sales force, to serve the target market. Given the resources involved, this model is applicable to a more limited set of ideally suited situations. However, it presents several advantages, including a greater scope for control and oversight, increased opportunities for branding and the option to provide customer finance in-house. It is often combined with the VLE or piggyback model in order to maintain costs within a reasonable range. An example of a network relying on VLEs alongside its own sales force is **Ugastove**, in Uganda. Ugastove has its own dedicated branches that sell cookstoves to households and institutions in a large

number of towns across Uganda. Ugastove also acts as a distribution center for smaller retailers such as supermarkets and hardware stores. In addition to the attractive price of its stoves, key success factors that have allowed Ugastove to sell over 250,000 stoves to the last mile are quality control, large-scale marketing campaigns via various media channels, and brand strength, all rendered possible by the existence of a proprietary sales network.

The VLE, piggybacking, and proprietary sales network models provide stove distributors with a range of options that can often be combined to reach the last mile. Beyond these three models, the establishment of markets for clean cookstoves relies on solid marketing and distribution strategies that minimize costs and feed into local constraints and needs. Through this research, we have identified eight key success factors for distribution models.

Key success factors for cookstove distribution

1 Choosing the right stove(s)

While the BoP is generally defined by its low purchasing power and its use of unsafe and inefficient cookstoves, there are in fact a myriad of options to choose from when it comes to marketing cleaner and more efficient stoves, whether it is in terms of price, design or manufacturing. Choosing the right product, based on your targeted market, is key. The choice of the marketed products, first of all, should be based on logistical constraints: are locally designed stoves available, or is it possible to train local artisans and reach a sufficient level of quality? Would imported stoves be cheaper, even taking into account transportation costs? Alongside the logistics, users needs, preferences, and financial means need to be examined carefully to select the most suited design, or a set of different stoves if needs and economic resources vary within the same community.

For example, Envirofit, a social enterprise producing and retailing stoves in the Khrishnagiri District of Tamil Nadu, India, focuses on high-quality products targeted at consumers with disposable income – the cost per stove is approximately \$30. This same price point was not a viable option for the **International Lifeline Fund**, who targets vulnerable populations and distributes basic

and subsidized “Peacemaking stoves” for \$3.20 per unit. ILF also offers two additional stove models in urban and rural locations, where the populations have different needs and purchasing power. In the same line, **GERES**, an NGO carrying out one of the world’s largest improved cookstove distribution programmes in Cambodia, has chosen to market two different products to its customers: the charcoal-burning “New Lao Stove”, retailing for around \$4, and the cheaper wood-burning “NeangKongrey Stove”, retailing for \$1.50. In all cases, a strong focus should be placed on guaranteeing the quality of the retailed stoves, a key requirement to create sustained demand and to keep ahead of the competition which may already be selling lower quality stoves.

2 Building creative partnerships

A second success factor is the enterprise’s ability to leverage local institutions, networks, and entrepreneurs in order to reach out to a larger pool of customers and reduce distribution costs.

Regardless of the chosen distribution model, all potential options should be explored, looking both at existing distribution networks and at community groups that may be interested in earning additional income and expanding their role



within the community. The choice of a partner should be made according to the area and the local constraints: in urban and peri-urban areas, partnering with large distributors can be particularly effective in order to reach out to a large number of customers; in rural areas, where such distributors are often inexistent, less conventional options can be examined, both among existing and potential entrepreneurs -including women- and local community networks of various natures.

For example, **SunnyMoney**, which partners with the education system to retail solar lamps is an innovative example in this view, has effectively aligned incentives -the need for children to have access to lighting in order to do their homework- to retail solar products at low cost. Latent demand for what is often seen as an unnecessary product by parents becomes tangible with teachers raising their awareness on the benefits to education of solar “study” lamps, for example. **Envirofit**’s distribution model in India, on the other hand, takes advantage of its partnership

with the NGO IVDP and their local self-help groups to distribute stoves more widely: members of the self-help groups -mostly women- serve a “sales ladies” that create demand by showing the benefits of clean stoves to their peers. MFIs and institutions offering consumer finance are another kind of strategic partners given their ability to develop new financing schemes for the retailed products, which they can pitch to their customers directly.

3 Preparing your entry in the community

In order to establish durable markets, another critical and often understated step is the need to carefully prepare a forthcoming entry in the targeted community. In addition to researching your potential customer base to gain a sense of what products or services are needed and which strategy is likely to give the best results given the local constraints, stove distributors should seek to build durable relationships and gain the trust of their targeted community



early on. As revealed by **SNV**’s own experience, some key information that needs to be gathered before designing and implementing a distribution strategy in a given area includes an overview of prior similar initiatives that may already have been led in the community -and the difficulties they have encountered, a sense of the existing competition, if any, and a good understanding of households’ and other potential customers’ ability and willingness to pay. Gaining the endorsement from village chiefs and other opinion leaders is also crucial, and while sometimes challenging, should be prioritized. **HKN** in Ghana first tried to do so by conducting advocacy meetings in which they got opinion leaders from their targeted district under one roof to discuss the project, and realized that obtaining buy in would be difficult this way. Instead, after some trial-and-error, they started organizing one-on-one meetings which have now paid off and gained them a widespread support among influential community members, whom have not only acquired the stoves themselves, but are also helping to relay information on the stoves and their benefits among their fellow community members.

4 Bundling products

Beyond just looking at the most appropriate stove for the targeted community, experience has shown that it is often sensible to adopt a broader perspective, by considering the inclusion of other products that could potentially be marketed at the same time. This is particularly true when working with entrepreneurs, as it helps lower the risk for entrepreneurs by ensuring them a more stable income, and allowing a bigger customer turnover for products with a short lifetime. Improved cookstoves are expensive, durable products and entrepreneurs may not have consistent sales. Bundling the sales of improved cookstoves to other selected items within a diversified portfolio reduces their risk and allows for more consistent income generation. Bundling cookstoves with Fast Moving Consumer Goods (FMCGs) that customers buy regularly can be particularly important. One example of a this is the **LivingGoods approach**. They area social enterprise selling over 70 health-related items including clean cookstoves, to rural



Ugastoves sales
Credit : Job Mutyaba

communities in Uganda. Other products sold by Living Goods' village level entrepreneurs comprise bed nets, deworming pills, anti-malaria treatments, fortified foods and safe water filters, also in high demand within the targeted markets. Other groups that have chosen to integrate improved cookstoves within a broader product mix are **Soluciones Comunitarias** in Guatemala, which has found that light bulbs and seeds are strong "pull" items with a good turnover rate and consistent demand, and **HKN** in Ghana, whose community based agents sell contraceptives, oral rehydration solutions, hand soap and a range other health themed products.

When bundling products, one should keep in mind that clean stoves cannot be integrated within any portfolio, be it only for their large size and weight. In that regard, it may be wise to opt for portable stoves, especially for those enterprises relying on mobile sales agents.

5 Having a well trained and motivated sales force

A key requirement for any successful stove distribution is a capable and committed sales force. To achieve this, not only do sales agents need to be rigorously selected -most of the examined groups work with agents that have some experience in the retail sector; **Toyola**, in addition, assesses motivation and reputation as separate hiring criteria- but proper capacity-building, incentives and oversight should also be put in place and ensured on an ongoing basis.

In terms of capacity-building, a variety of free training courses on marketing, finance, or business development can be offered, alongside strategies to promote shared learning, like cross-community meetings and coaching from experienced local entrepreneurs. Besides business courses, **HKN** additionally stresses the need to make sales agents aware of the broader goals of their enterprise, and has found that organizing regular meetings on health and gender issues among its sales agents increased their overall motivation. Alliance research has found that training that integrates agency-based empowerment concepts and leadership strategies has immense opportunity to strengthen the capacity and effectiveness of women entrepreneurs. The Alliance's Empowered Entrepreneur Training Handbook allows partners to train micro entrepreneurs in basic business skills, agency and leadership which enhances an individual's cognitive capacity to create and focus on his/her goals, and leadership skills enable the tangible realization of these goals. Motivating sales agents in the absence of fixed salary -or even when regular incomes can be offered- has been found to be a major challenge by many of the initiatives we looked at. While on the financial front, paying commissions can be a way to compensate for this when resources are available, this may be risky in small markets where demand is quickly saturated, and is not always sufficient to ensure a low churn rate. Well aware of this, **LivingGoods** provide mentors, refresher sessions and performance monitoring for all their agents. On top of this, an appropriate level of support and oversight needs to be offered, with

a tiered system of paid managers whom sales agents can easily reach out to. Experience shows that this can be done relatively cheaply. **SolCom**'s regional managers, for instance, use public transportation to regularly visit community based entrepreneurs and restock them in goods. Many of the groups we looked at have established hubs at a manageable distance from their targeted markets, so local agents can easily get new supplies, meet with colleagues and attend trainings. **SunnyMoney** uses schools as meeting grounds for headteachers to come together and get restocked. Equipping salesmen with mobile phones has also proven to be a cost-effective management strategy, allowing them to take new orders from clients, ensure aftersales services and report their results to managers.

6 Lowering financial barriers

Yet another challenge to be addressed when setting up a stove market at the BoP is the relatively high cost of clean cookstoves for households that are already financially constrained. Why would they make an extra investment when they already have traditional cooking devices that work? While consumer finance is not always necessary to enhance demand, one question to consider prior to providing finance is whether the price range of the proposed cookstoves is well-suited to the targeted population. Facilitating financial access to the cookstoves through dedicated schemes may prove important to push demand. The scope for setting up well-functioning consumer finance schemes is largely

determined by the chosen distribution model. While VLEs can be encouraged to offer merry-go-round schemes or staged payments to their customers, for example, consumer finance is most easily set up in the proprietary sales network where greater oversight is possible. Piggybacking with financial institutions is another option that has been tried out by **Burn**, the leading clean stove manufacturer in Kenya who works extensively with MFIs, or **Ezylife**, who takes orders for cookstoves through credit and savings cooperatives. Another way of lowering financial barriers is to secure carbon credits that help reduce the price of the retailed products, as **Ezylife Kenya** and **Ugastove** have managed to do. Mobile transactions, currently being tested by **LivingGoods**, is another innovative way to ease stove purchases, and would be a particularly big improvement for the distribution of stoves in isolated areas. Supplier finance should be considered by those enterprises that rely on local entrepreneurs, who may need assistance in initial operations. This can take the form of start up capital, staged payments or below-market inventory loans. Other creative strategies are also possible, such as micro-consignment which is utilized by **SolCom**. In this scheme, entrepreneurs only pay for what they sell and return the surplus. **Toyola** also offers this consignment model to trusted entrepreneurs. Additionally, they have set up a system of incentives in which casino chips are collected by the sales agents as they sell products. These chips can later be cashed out and earnings can go towards a savings account.

One last consideration of key importance for ensuring the financial

sustainability of last mile distribution channels is the need to minimize transaction costs at all levels. This can be done by limiting the number of intermediaries and negotiating fair but affordable margins for each of those selected links, as done by **Toyola**. Toyola engages with intermediaries at various stages of the supply chain and actively nurtures up and downstream actors to the benefits of itself and its customers.

7 Leveraging peer connections and word of mouth

One of the most effective ways to reach out to communities and convince them of the life-changing impacts of owning an improved stove is solely on peer connections

and word of mouth. As explained earlier, communities that have been consulted prior to entering the market are often far more receptive to any marketing efforts to come. When it comes to generating actual demand, trusted community members and family members can relay the benefits of a new product. Below-the-line marketing -i.e. targeted awareness raising through direct communication to community members- is, therefore, a key strategic means to build acceptance and trust among potential customers.

Having secured endorsement from opinion leaders, a wide range of strategies can be used in this view, including local demonstrations, trial periods and free services like stove installation for new users. **SunnyMoney** organizes large training sessions where the headteachers of a district are introduced to solar



SolCom
Guatemala

technology and how to use it. They are given two weeks before SunnyMoney comes back to take the first orders they collected from parents and then another ten-week period is allotted before a second visit. This gives other members of the community enough time to see the benefits of improved cookstoves for themselves. Satisfied customers can also be actively engaged in marketing efforts, for example the distribution of flyers or public demonstrations, by using small incentives such as discounts on fuel. Women, in particular, should be thought of as they have key networks of relationships with potential customers, and can be especially good marketers for reaching out to other women, the primary users of cookstoves. **Envirofit's** "sale ladies" are not only in charge of generating demand, but raising awareness around indoor air pollution. They have proven to be very effective behaviour change agents. Likewise, **Toyola's** women promoters,

the "evangelists", help spread the word about the health and economic benefits of clean stoves.

8 Securing long-term demand

Beyond getting a community's attention, one must also manage to generate long-term demand for the introduced stoves. Distribution initiatives need to account for the fact that stoves are relatively long-lived items. There is a risk, therefore, of rapidly saturating demand on a local basis if distribution initiatives remain focused on very small markets. It may be very useful to reach out to a large pool of customers (e.g. several communities). For this, above-the-line (ATL) marketing, that is, indirect and large scale advertising in the form of TV or radio spots for example, is useful as it can help build product awareness and a strong brand image

that will appeal to a large number of customers. Earlier on, we mentioned **Ugastove** as a group with a large outreach supported by a strong brand image, **SunnyMoney** is another good example, relying on magazine ads and radio programs, alongside its headteacher salesforce, to make sure it gets maximum outreach. One precaution to be taken when it comes to ATL is to adapt messages to local community needs.

In order to maintain long-term demand, organizing reliable and easy-to-access aftersales services should be a priority, and can be largely facilitated by the use of cell phones. Visiting the community after cookstoves have been distributed to ensure there are no concerns and take new orders is another good way to remain in touch. If resources are limited, one can start making more use of social media, an avenue that remains to be explored by distribution initiatives reaching out to increasingly better connected last mile communities.

This brief has introduced a set of distribution models and success factors identified by SNV, Practical Action Consulting, and the Global Alliance for Clean Cookstoves based on their experience and research on ten detailed case studies in the improved cookstove sector. The recommendations outlined here are also relevant for distribution initiatives in other sectors within the BoPand we hope they will be widely read.



Sales agents
Envirofit Kenya



Sales lady
Envirofit Ghana



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