



POLICY BRIEFING

Wadzanai in Juru Village demonstrates how she cooks for her family on a mudbrick stove in her beautifully decorated kitchen (Kevin Johnstone)

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STOKING FINANCE FOR AFFORDABLE COOKSTOVES: EXPERIENCE FROM MALAWI AND ZIMBABWE

Policy pointers

- To address the affordability gap, donors must subsidise cooking solutions for the poorest households in Zimbabwe — and continue doing so in Malawi.
- Cookstove targets and policies — along with a vibrant cookstove community — have stimulated funding and investments for the cookstove sector in Malawi. Malawi's new administration should publicly recommit itself to the previous administration's targets, and Zimbabwe should follow through on promised policy development specifically for cookstoves.
- Donors and governments should continue with comprehensive funding packages for cookstoves — like the results-based financing programmes in Malawi — that build demand for cookstoves while supporting cookstove enterprises to expand their distribution channels.
- Humanitarian funding can offer critical support to households while also developing cookstove markets. The Zimbabwean and Malawian government along with the World Food Programme and UN High Commissioner for Refugees should establish humanitarian packages that include local cookstove enterprises.

Introduction

There are still 2.8 billion people worldwide who lack access to clean cooking solutions, a figure that has remained stubbornly high.¹ This persistent gap shows that despite huge efforts, cookstove initiatives have largely failed to reach scale. Among other issues, access to affordable finance is still an immense barrier. Of the US\$4.4 billion annual investments needed to reach everyone by 2030, only US\$32 million (0.73%) was invested in 'high-impact' countries in 2017, an astoundingly low amount.² This persistent gap increases the investments needed in subsequent years. Bridging it requires substantial public finance and sustained commitment. **Public finance must boost demand for improved and 'cleaner' cookstoves by addressing the affordability gap in the poorest households —through price subsidies, concessional end-user financing, and other means. And it must increase supply to expand distribution channels — for example through grants, concessional finance, guarantee instruments, and patient capital to enterprises.**^{3,4}

This briefing offers a snapshot of the clean cookstove markets in Malawi and Zimbabwe, and highlights finance mechanisms and policy changes that could help boost these markets. The research was carried out as part of the Green and Inclusive Energy Programme on which IIED is technical lead.⁵

Bridging the household affordability gap

As in many countries across the globe, Zimbabwean and Malawian households have to make complex decisions about the types of stoves and fuels they cook with based on considerations such as gender dynamics, household budgets, fuel costs and availability, durability, aesthetics and speed of cooking.⁶ For example, most rural households in Zimbabwe (95%)⁷ and Malawi (96%)⁸ rely on biomass fuels such as firewood and charcoal for their daily cooking as these fuels are

readily available and cost the least. Seeking to meet all these household needs drives them to either use a mix of options or revert to using open fires – the ‘free’ option. Buying a clean cookstove is often not a priority for these low-income households, so there need to be compelling incentives.

Box 1 Drivers of urban and rural cooking fuels

In Malawi, a recent USAID spatial study found that the major drivers of rural biomass consumption and higher pricing include increasing demand for biomass due to a growing population and continued dependence on wood and charcoal for cooking and this is unlikely to change soon.⁹ Zimbabwe’s unstable economy is also putting pressure on biomass supplies.¹⁰ In both countries, cooking with firewood contributes to deforestation and burning biomass indoors can lead to respiratory problems.

Donors and governments have paid more attention to rural households, and less attention to urban households in both countries. In Zimbabwe, 66% of urban households rely on electricity but ongoing grid unreliability has been driving them to source other cooking fuels, including unsustainable charcoal. In Malawi, 76% of urban households rely on charcoal for cooking, but soaring demand and scarcity are pushing prices up.¹¹ Rapid changes in these drivers offer an opportunity to guide the market towards more sustainable solutions and financing, but stakeholders must move quickly. For example, sustainable charcoal production will require enormous investments for scale-up, but soaring prices may make these investments economically viable very soon.

Many Malawian and Zimbabwean households are averse to taking on debt for improved cookstoves. Those that do purchase cookstoves typically use cash, with few taking up credit options.¹² There are varying appetites for taking on loans for cooking solutions. The most vulnerable households are unable to afford any type of cooking solution, and will require demand-side subsidisation such as price subsidies, and to reach them, supply-side subsidies will be vital in expanding distribution networks (see results-based financing (RBF) example below). In Malawi, the microfinance institute FINCOOP piloted consumer financing for US\$2 stoves but found the transaction costs too high and its members uninterested in such small loan amounts.¹³ Unsubsidised consumer financing may only be viable for more expensive cooking solutions that require larger loans and households with greater purchasing power or consistent cash flows, which are mostly found in peri-urban or urban areas.

Barriers faced by cookstove enterprises

Globally, few, if any, cookstove enterprises have reached scale,¹⁴ and this is true for Zimbabwe and Malawi, although Malawi’s cookstove market is far more developed. Among other issues, this highlights the high costs of delivering improved cookstoves – with small margins – to dispersed rural areas and the economic challenges of more expensive, ‘cleaner’ liquid fuel and electricity distribution infrastructure in more densely populated urban areas, which are not quite ready for scaling.

In Malawi, donor funding in the last two decades has focused on developing the value chains for locally produced, improved cookstoves for rural households, and clear government cookstove targets have helped attract more funding. A vibrant cookstove community, including the National Cookstoves Steering Committee (NCSC) and the MBAULA practitioners’ network, has also coalesced. Because of these and other factors, an impressive 1,988,244 improved stoves have been sold or distributed through donor-funded programmes since 2012.¹¹ But these initiatives remain fragmented and without sustained financing, which limits their potential for further expansion.

In Zimbabwe, government support for improved cookstoves started in the 1980s, but interest has waned as priorities have shifted. Urban areas have relied on electric cooking, which is possibly why government policies have focused on fuels for electricity and petroleum products. Biomass use cuts across sectors and ministry mandates, leaving the improved cookstoves sector largely informal without targets or frameworks, and with limited funding.¹⁵ Zimbabwe’s macroeconomic instability also compounds barriers to finance, with high inflation, currency risks and unpalatably high interest rates for lending.

Many stove enterprises lack access to affordable working capital. Those making cookstoves locally face practical challenges around supply to rural consumers. For example, many stove producer groups in Zimbabwe and Malawi are unable to handle outbound logistics and distribution further afield, and cannot adequately store cookstoves during the rainy season. In Malawi, this has contributed to potential demand saturation of improved stoves in the south, and unmet demand in the north. Cookstove enterprises remain reliant on donor-funded projects for these value chain services, in addition to awareness raising, marketing, standards enforcement and after-sales services. Many cookstove enterprises and producer groups have limited business acumen and capacity, which constrains their ability to secure other financing, and many banks are unwilling to lend, even to successful entrepreneurs. Guarantee mechanisms for loans can help build relationships and trust between cookstove enterprises and banks.

The promise of bundled financing in Malawi

Reaching the poorest households in Malawi and Zimbabwe will require more affordable financing for cookstove enterprises to extend distribution channels into rural areas (supply-side subsidies), and to bridge the affordability gap (demand-side subsidies). Several attempts have been made to extend cookstove availability and reach poorer markets – each with their own challenges and opportunities for scaling up. Two of the most promising programmes are highlighted here.

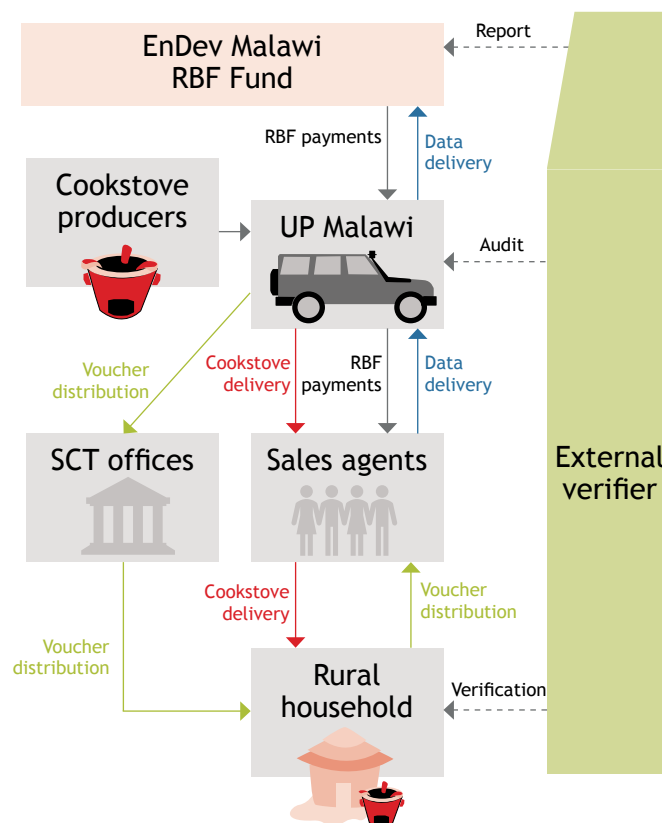
Results-based financing: establishing supply chains while building demand

Two programmes in Malawi bundled demand- and supply-side subsidies using RBF, a financing mechanism where a donor or government pays a service provider on delivery of pre-defined results, in this case delivery or sale of improved cookstoves.

Energising Development (EnDev) and Irish Aid are funding the NGO United Purpose (UP) to implement programmes that use two different RBF mechanisms to incentivise the delivery of cookstoves to rural households. Figure 1¹⁶ highlights the relationships and delivery model (stoves and RBF incentives) between stakeholders within the EnDev programme. UP pays cookstove producers to make stoves then transports these to partner communities and distributes them through community agents using two channels: (1) the existing government Social Cash Transfer Programme (SCTP) and (2) regular sales to higher-income households. The SCTP targets 10% of the most vulnerable households with a support package that includes a free cookstove through a voucher programme. EnDev then releases RBF payments to UP from a regional fund after delivery verification. EnDev's scheme was not without challenges, for instance delays in RBF payments. And while the programme successfully delivered stoves to 135,000 households, it is unclear who will finance replacement stoves when they are needed.¹⁷

UP also runs the Irish Aid programme in a similar manner, but this programme is linked to carbon credits (a type of RBF), which have stringent accounting and verification requirements,¹⁸ and calculate payments based on emissions reductions from households switching to the improved stoves. The carbon credits themselves proved time consuming and expensive to access and suffered from price volatility, which is likely to limit this type of financing to cookstove enterprises with higher capacities.¹⁹

Figure 1 Relationships between RBF implementing entities in Malawi



Looking forward

There are clear challenges and opportunities for financing cookstoves in Malawi and Zimbabwe. In the short term, there could be scope for leveraging COVID-19 recovery funds to include cookstoves as part of larger, comprehensive packages to reduce noncommunicable diseases.²⁰ Additionally, both Zimbabwe and Malawi face recurring natural disasters such as drought and flooding that are exacerbated by climate change. The governments of Malawi and Zimbabwe, along with the World Food Programme (WFP) and United Nations Refugee Agency (UNHCR), must ensure that humanitarian interventions in both countries work with local cookstove enterprises to distribute cooking solutions in humanitarian packages, helping to build and support cookstove markets, while delivering critical support to affected households.²¹

Malawi's cookstove market has seen concentrated donor and enterprise efforts, with some success. But there is growing recognition that the fragmented, donor-funded approach is inadequate to achieve a full market scale-up, and that cookstove enterprises – with the support of donor-funded projects – must establish better links to commercial financing.²² The NCSC and others are now working to address urban household needs. This is much needed but it must not come at the cost of reaching the poorest rural households.

Establishing a sustainable market takes time. Meanwhile, donors must continue to fund essential activities such as technical assistance to enterprises, support for market-building activities, and ongoing data collection to monitor urban and rural market demand, as well as price subsidies for the poorest. In addition, economic contractions from the COVID-19 fallout and the implications for official development assistance gives urgency to steering the sector away from donor funding towards commercial financing. Malawi's recent election and change of administration offers an opportunity to reinvigorate cooking solution efforts. As a first step, the government should reaffirm past cooking solution commitments and targets, and continue its engagement with the NCSC and other important stakeholders.

Zimbabwe's cookstove market is much less developed with very little financing. Its National Renewable Energy Policy only addresses biogas, and no other cooking solutions, and there is very limited data on the market and its stakeholders. But there is appetite for change. The Ministry of Energy and Power Development (MEPD) is finalising an Efficient Cookstoves Framework and is already in discussion with the Zimbabwe National Statistics Agency to include more informative statistics on types of cookstoves in use

across the country²³ – an approach Malawi should also consider. Better data on the markets for cookstoves can help strengthen business cases and unlock financing once the sector in Zimbabwe has evolved.

To start, the MEPD should consider re-animating Zimbabwe's defunct National Cookstove Steering Committee, in the model of Malawi's successful NCSC. The MEPD should ensure the involvement of funding and finance partners with the NCSC from the start. The social spending increase this year is a chance to kickstart funding cookstove enterprises or building cookstove demand, targeting the most vulnerable households. Cookstove targets in Malawi have been powerful in galvanising the sector and could do the same for Zimbabwe, unlocking funding, investments, and giving it much needed momentum.

Finally, as is true elsewhere, cooking solutions and gender are closely linked in Malawi and Zimbabwe. Gender dynamics are significant, for instance, women typically have less access to finance than men, and while most women prioritise cooking for the family, most men would not prioritise a new cooking solution for the household. Engaging men and women alike in cooking solutions is critical to rapidly expanding access.

Author

Kevin Johnstone, Researcher, IIED's Shaping Sustainable Markets group

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Notes

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