



Action Research Brief Labor-Saving Technology Malawi

OVERVIEW Building on the Pathways project, CARE Malawi's Water and Development Alliance (WADA) project works with smallholder women farmers in Dowa and Kasungu districts to increase their productivity, profitability, and food security. These are achieved through market development and the adoption of Water Smart Agriculture (WaSA) technologies and practices.

Smallholder women farmers in these communities have limited access to affordable and user-friendly farming machines needed to increase productivity and reduce the time spent on farming activities. To address this issue, CARE Malawi introduced labor-saving technologies (LSTs) to smallholder farmers in Farmer Field and Business Schools (FFBS) groups. Working with local metal fabricators, CARE enabled smallholder women farmers to design and develop tools for their specific soil and cropping system.

To evaluate smallholder women farmers' access to LSTs, and the impact of this innovation, CARE Malawi conducted focused group discussions across 7 FFBS groups in Dowa and Kasungu districts that had

acquired or started using the LSTs. Monitoring and learning exchange visits were also organized.



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Key Findings

Notable Successes

- Increased Knowledge and Access**
 More smallholder farmers in Dowa and Kasungu districts know about the labor-saving technologies available for agricultural use.

Maize and soybean planters help increase crop productivity; groundnut shellers, maize shellers, and soybean threshers help reduce the time required for manual-removal of shells, husks and soybean stalks. The WADA program has helped groups learn about the range of LSTs available and connects them with local metal fabricators.

- **Saves Time and Generates Income**

In Dowa and Kasungu districts, farmer groups acknowledge the effectiveness of LSTs in reducing time spent on farming activities. The farmers stated that it took a day to fill a 50kg bag with threshed soybeans manually, but with the thresher, this takes 20 minutes. Also, manually filling a 50kg bag with shelled groundnuts typically took 1 to 3 days, but with the sheller it takes 20 to 60 minutes. In addition to the time saved by using these technologies, farmer groups that own LSTs generate income by renting out these tools. These funds are put towards the maintenance and repair of the tools. From July 2019 to March 2020, the farmer groups made a total of MK 803,550 (~US\$ 1,100) from renting out the LSTs tools to over 100 farmers.

Challenges

- **Cost of Purchase and Maintenance**

While the use of LSTs provides more time for smallholder farmers, especially women farmers to participate in other activities, purchasing these machines and the need for frequent repairs proves a challenge for some farmer groups. The price of buying one ranges from MK 65,000 (~US\$ 90) to MK 450,000 (~US\$ 610), often an upfront cost that is too high for many groups. Although the cost of renting out these tools to other farmers often helps to cover repair and maintenance costs, some groups have found it

difficult to cover these costs since some group members do not pay the rental fee as they see no reason to pay because the tool belongs to the group.

Monitoring and Learning-Exchange Visits

The CARE Malawi WADA project used visits to address some of the challenges faced by smallholder women farmers in the communities. The learning exchange visit aimed to improve the knowledge and adoption of the technologies for groups not yet utilizing LSTs. Farmer groups were encouraged to diversify their investment in income-generating activities, as this would help generate the funds needed to procure LSTs. Following these visits, more farmer groups invested in LSTs.

Conclusion & Recommendations

Smallholder farmer groups in Dowa and Kasungu districts who adopted the use of labor-saving technologies observed an increase in crop productivity and have more time to engage in non-farming activities. However, there are still barriers for many farmer groups: the upfront cost, the quality of LSTs, and the need for repairs of the tools. Improving access to LSTs and ensuring the quality of these tools in the communities can be addressed through the following:

- Advocacy for NGOs working within the communities to scale up labor-saving innovations and support smallholder women farmers.
- Promote discussions within farmer groups to discuss the importance of rental fees for members and its significance in sustaining the LSTs.

Reach out to metal fabricators to adopt the use of durable materials and improved designs in constructing these tools.

CARE USA
151 Ellis Street
Atlanta, GA 30303
USA

www.care.org
www.care.org/water

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CARE Malawi
P/Bag A89
Capital city, Lilongwe
Malawi

www.care.org/country/malawi



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