

Integrating Gender and Nutrition within Agricultural Extension Services

Case Study
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Increasing Opportunities for Women Farmers in Community-Based Extension: A Case Study of the PROFIT+ Model

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© INGENAES, taken by M. Bell in 2016. PROFIT+ staff and community agro-dealer in Eastern Province, Zambia

I. Introduction

Around the world, both women and men are involved in agricultural activities. Evidence shows that women provide 70-85% of labor for food production and sales in Sub-Saharan Africa (The World Bank, FAO, and IFAD, 2008 citing The World Bank, 2005). Despite this enormous contribution of labor, women in Sub-Saharan Africa control little of the titled land and other productive assets that contribute to household food security and income creation. It is widely accepted that attention to gender equality and

nutrition is necessary for achieving development outcomes (Aakesson, Pinga, and Titus, 2014; Fanzo et al. 2013; Manfre et al., 2013; Kuyper and Schneider, 2016).

Extension services are a critical component of achieving agricultural development outcomes, but in most parts of Africa women receive less extension and advisory services than men. To contribute towards increased food and nutrition security and improved livelihoods, organizations must aim to effectively integrate gender and nutrition in their operations.

Zambia has a population of 15.5 million people and an estimated labor force of 7.1 million people. Up to 85% of the labor force is engaged in agriculture, many as rural small-scale farmers scattered over great distances (CIA World Factbook, 2017). Women are estimated to provide 60-80% of smallholder production in Zambia (Farnworth et al., 2011). A pluralistic agricultural extension system comprised of roughly 1,800 government agricultural camps plus additional agents from the private sector, NGOs, farmer associations, and cooperating partners serves these farmers (see Box I). Supporting the success of women farmers through access to agricultural extension services and inputs is key to agricultural development, food security, and the sustainable improvement of rural livelihoods. In most parts of Zambia, women farmers receive only a fraction of the inputs and extension support that men farmers receive. Women also lack formal land title in much of Zambia and are often unable to join producer organizations through which extension services are provided (Farnworth et al., 2011). Despite their great contributions to agricultural production and productivity, Zambian women farmers have inadequate access to extension services and inputs. Zambia has missed opportunities for additional gains in agriculture because women have been overlooked.¹

Box I. History of Ag. Extension Services in Zambia

Text adapted from Republic of Zambia Ministry of Agriculture and Ministry of Fisheries and Livestock, 2017. *The National Agricultural Extension and Advisory Services Strategy: 2017-2020.*

Agricultural extension services in Zambia have been delivered through many approaches. These include:

- a) A command/military approach that targeted specific progressive farmers who were told which crops to grow. This was implemented before independence in 1964 and maize was the main crop of focus.
- b) After independence, the Zambian government established Farmer Training Centers (FTCs), Livestock Service Centers, and Farm Institutes (FIs). FTCs were used for commodity demonstration and to facilitate farmer training in improved farm management practices. FIs provided in-service training for extension staff and higher-level training to improved small scale farmers.
- c) The Training and Visit (T&V) approach was introduced in early 1980s and was characterized by bi-weekly field staff trainings by specialists, extensive use of contact farmers, concentration of extension messages on the staple maize crop, and a unified command for livestock, crops, and fisheries extension services.
- d) The Farming Systems Research (FSR) approach was introduced as a more holistic diagnostic process for researchers to elicit better understanding of farm households, family decisions, and decision-making processes. This system was implemented at the same time as T&V, but was not successfully adopted into the mainstream extension system.
- e) In 2000, the Participatory Extension Approach was promoted as the main vehicle for extension service delivery following a World Bank supported Government study. The Household Approach was one of the models implemented by the Agricultural Support Program and is credited as a flagship model that achieved good results in gender mainstreaming and economic empowerment in agricultural sector.

Zambia currently uses a pluralistic service system where both public and private sector actors play active roles in serving farmers. Extension providers use different approaches to meet the objectives of their programs.

¹ Closing the gender gap in agriculture would generate significant gains for the agriculture sector and for society. If women had the same access to productive resources as men, they could increase yields on their farms by 20–30 percent.

This could raise total agricultural output in developing countries by 2.5–4 percent, which could in turn

reduce the number of hungry people in the world by 12–17 percent. The potential gains would vary by region depending on how many women are currently engaged in agriculture, how much production or land they control, and how wide a gender gap they face (FAO, 2011).

The Production, Finance, and Improved Technology Plus program (PROFIT+; see Box 2) was a USAID Feed the Future program implemented by ACDI/VOCA in Zambia from June 2012 to May 2017. The program design recognized that equitable access to extension services is a key enabling factor that shapes women's livelihood opportunities. PROFIT+ developed an inclusive strategy to create equitable and sustainable opportunities for women and men along target value chains in Zambia. The program aimed to enable women and other poor smallholder farmers to increase food security and drive economic growth with new opportunities in agriculture and marketing.

A community-based model was used to tackle the gender-based constraints facing women and men in production, processing, and marketing of targeted agricultural value chains. The PROFIT+ model recognizes that value chains are embedded in social context, that value chain development affects gender roles and relations, and that gender equity and value chain competitiveness are mutually supportive goals (Rubin et al., 2009).

This case study - produced under the INGENAES project - examines the hypothesis that, as women become agricultural entrepreneurs and engage with more community members, input suppliers, and output purchasers, they will acquire more agricultural extension knowledge and disseminate that information to a wider network of smallholders, especially women.

The PROFIT+ approach assumes that a community-based extension model focused on increasing leadership opportunities for women can serve more rural men and women farmers. The community agro-dealer (CAD) model has the potential to both empower women CADs

and provide a greater number of smallholder farmers with extension messages, ultimately contributing to increased food security and economic empowerment.

Box 2. PROFIT+ Program Information

Production, Finance, and Improved Technology Plus (PROFIT+) was a \$24 million USAID-funded Feed the Future program implemented in Zambia by ACDI/VOCA. The program goal was increasing food security and decreasing poverty through agriculture-led growth and inclusive market access for smallholder farmers. The program ran from June 2012 to May 2017 with activities concentrated in Eastern Province and peri-urban Lusaka.

The program objectives were to improve smallholder productivity and increase production, expand markets and trade, increase private sector investment in agriculture, and promote diversification. PROFIT+ targets 200,000 smallholder farmers, processors, and traders through interventions focused on seven value chains (maize, soybean, sunflower, groundnut, tomato, onion, and honey)

The program conducted a gender analysis at start-up and developed a clear gender mainstreaming strategy with benchmarks for supporting gender equality along each level of the value chain. This assisted PROFIT+ staff to monitor implementation and re-align activities that did not meet targeted levels of participation for women. The fieldwork conducted by INGENAES collected data that was analyzed to examine how the PROFIT+ CAD model contributed to the increased involvement of women in agricultural extension and advisory services as recipients and disseminators, and how their involvement assisted them to become entrepreneurs in their communities.

II. Case Study Methodology

In April 2016, an INGENAES consultant and two enumerators conducted key informant interviews (KIs) and focus group discussion (FGDs) in three districts (Petauke, Chipata and Lundazi) to document changes in agricultural activities and enterprises of the women involved in the PROFIT+. The open-ended questionnaires collected the following information from the women and men demo-host farmers (DHF) and CADs who participated in KIs and FGDs:

- Agricultural activities of the farmers
- Sources of agricultural knowledge and inputs
- Level of agricultural knowledge
- Sharing of agricultural knowledge with other farmers (network)
- Returns to agricultural enterprise
- Asset control/ownership
- Leadership in household and community
- Voice

The study attempted to identify the relationships between economic engagement and knowledge acquisition and dissemination, particularly for women. This case study investigation collected the experiences of women involved in the program as smallholder farmers, DHFs, CADs, and directors of producer companies. This study explores the relationship between the involvement and status of women at different levels of extension service delivery and their agricultural and economic activity; it identifies correlations but does not suggest attribution.

The study describes how under PROFIT+ women became dynamic agents of agricultural extension and how agricultural entrepreneurship improved women's access to agricultural production information and benefits derived from their agricultural activities.

Box 3. Sample Size.

DHFs and CADs were selected from lists provided by PROFIT+ staff for KIs. FGDs were held in separate groups for women and men Farmer Field Schools (FFS) participants in each district. A total of 113 participants (75 women and 56 men) were reached during the survey in the three districts. 54 were CADs (29 women and 25 men) representing 15% of the total. This represents a greater number of interviews than were intended during the design of fieldwork which led to analysis challenges. 17 CADs had not yet been in business at the time of the interview (unable to afford stocks or not linked with supplier).

Of the 54 CADs interviewed, 54% were female and 46% were male. The majority (79.6%) of the CADs interviewed were married and living in households that have both adult females and adult males. The average age of interviewees was 45.2 years for women and 50.5 years for men. 43 respondents were married, 4 were single, 2 were divorced, and 5 were widowed.

III. The PROFIT+ Approach

The PROFIT+ program aimed to improve access to agricultural inputs and technologies, extension messages, and markets for rural Zambian men and women farmers by establishing DHFs and CADs. The DHFs were locally selected from the best performing smallholder farmers with the assistance of Ministry of Agriculture (MoA) extension staff and partner organizations such as District Farmers' Associations (DFAs), District Women Development Associations (DWAs), traditional leaders, and farmers. The DWAs were instrumental in ensuring that women farmers were recruited as DHFs. The first pool of 70 DHFs included 34 women (48.57%) which was well above average in a sector where women are under-represented in leadership positions and access to extension services. A DHF worked

with five lead farmers (LFs) who were each responsible for 20 follower farmers. Each demonstration plot served an average of 106 smallholder farmers. PROFIT+ and the MoA conducted training of trainers workshops for DHFs and LFs who then rolled out the trainings to follower farmers at the demonstration plot within their communities. The frequent lessons within the community were intended to be more accessible to farmers, especially women, and help improve production and productivity in the targeted value chains.

In the second year, PROFIT+ assisted the best performing DHFs to become CADs based on their willingness to adopt new technologies and to train both men and women farmers. The CAD model facilitates local access and availability of improved inputs by building partnerships between input supply companies and community-based private agents (i.e. the CADs). PROFIT+ helped link CADs to input suppliers and encouraged them to supply inputs promoted by the program. The approach is market-driven and CADs self-fund the purchase of their input stocks. Some inputs were provided for demonstration plots, but CADs were not financially assisted in starting their businesses.

In addition to supplying inputs locally, CADs continue agricultural training at demonstration plots and receive training on business practices and savings groups. Many CADs established or worked with local savings groups using the skills they were trained on. The CAD model facilitates multiple levels of farmer-to-farmer extension through regular lessons aligned with the crop calendar at the demonstration plots, farmer field days, and the promotion of locally available technologies, inputs, and services.

During the marketing season CADs and DHFs may also act as primary aggregation agents for

agricultural commodity buyers. This provides easy access to markets for rural farmers, especially women who are constrained to travel to distant markets due to time constraints resulting from productive activities, household chores, childcare responsibilities, and mobility challenges.

IV. Findings

This section outlines the findings from the KII and FGDs conducted by INGENAES personnel in April 2016. The information represents the opinions of CADs and DHFs who participated in the PROFIT+ program up to that point in the program implementation. These findings are broken into thematic sections and are analyzed in Section V. Conclusions.

Access to Extension Services

Prior to the PROFIT+ program, 76% of CADs interviewed had received extension advice (see Table I). Two thirds of those who did not receive extension advice before program activities were women. The most common reasons given for being excluded from extension activities was being a woman or “not being known” to the extension agents.

Table I. Extension before PROFIT+

Receive any extension advice before being a CAD?			
	Female Respondent	Male Respondent	Total
No	8	3	12
Yes	21	21	42
N/A	0	1	1
Total	29	25	54

When CADs were asked about being visited by public and private extension service providers in

the six months preceding April 2016, they reported an average of 5 visits each. PROFIT+ and the Conservation Farming Unit of the MoA were reported as the main sources of agricultural extension information for men and women DHFs and CADs who rolled out the trainings to both men and women farmers. All CADs, regardless of sex, reported more

requests for extension advice from women farmers than from men (see Table 2 below). Women farmers made up 57% of requests to female CADs and 44% of requests to male CADs. Both men and women made up 20% of requests to female CADs and 37% of requests to male CADs. Men requested advice from CADs of both sexes in nearly equal proportions.

Table 2. Agribusiness Services

Who requests advice more?				Main Customers**			Main Spenders***		
	Female Resp.	Male Resp.	Total	Female Resp.	Male Resp.	Total	Female Resp.	Male Resp.	Total
Women	12	7	19	12	5	17	11	5	16
Men	5	3	8	5	9	14	8	11	19
Both	4	6	10	3	2	5	2	0	2
Total*	21	16	37	20	16	36	21	16	37

*17 CADs not yet in business **Majority of customers ***Spend more money in shop

Access to Improved Inputs

When farmers saw productivity and quality results demonstrated within the community, they were more willing to invest in improved inputs. CADs stocked the inputs promoted by the extension activities and enabled men and women smallholders to purchase them locally. Men were reported more frequently than women as Main Spenders even though women were reported more frequently as Main Customers (see Table 2). One possible reason for this trend is that select male and female CADs were willing to let men customers purchase supplies with credit, but no CADs offered women customers credit. It is interesting to note that both men and women saw providing credit to women as higher-risk despite the success of women farmers and entrepreneurs

under the PROFIT+ program. Women might have also been reported as Main Customers because men could more easily access inputs outside of the community and were less dependent on the CADs.

It was observed that CADs who hosted demonstration plots and FFS increased their business. Farmers who were trained and saw good results at the demonstration plot in their community were more willing to purchase improved inputs. Smallholders were confident that the inputs would lead to increased productivity and quality in their own context, and they found the higher costs for inputs a worthwhile investment. Transportation costs were also reduced because CAD shops were in the community, and farmers could therefore invest more in inputs directly. This increase in sale of inputs in previously

underutilized and unrepresented markets encouraged more input suppliers to work with PROFIT+ CADs. Many input suppliers were pleased to see their products being purchased in communities where they had done little-to-no business before and they offered services to CADs who stocked their inputs in order to increase business further. These services included technical knowledge about input use, good business practices, and ordering decisions, and the opportunity to become a commodity aggregator.

During the survey, the CADs and FGD participants all reported increased use of certified seed, fertilizer, and other inputs compared to their activities before PROFIT+, leading to higher yield and improved household food security. This was particularly true for women who received less extension support and access to inputs prior to PROFIT+ program activities. CADs reported confidence in advising customers on how to use the inputs, with some requesting a refresher for specific inputs they were newly stocking such as agrochemicals.

Participation in Decision Making

It was also evident that women's ability to make decisions has improved as most women reported participating in making household decisions, planning stocks for agro shops, and making decisions on what agricultural best practices to adopt following trainings (See Table 3 next page and Appendix A). This case study does not have a baseline to compare these findings with, but men and women respondents indicated that in their opinion, women's decision-making ability had increased. The highest incidence of men as sole decision-maker was 35% for use of land. This result was not unexpected because women respondents had very little formal land tenure. These results do not necessarily represent all PROFIT+ program participants because only 43 respondents were married. Additionally, a requirement for selection as a CAD was willingness to work with both men and women, so the respondents might represent a more progressive cohort of PROFIT+ participants.

Table 3. Sex of Decision Makers

	Decision maker on use of land	Decision maker on crops grown	Decision maker on planting time	Decision maker adoption of new farming practices	Decision maker on where to sell crops	Controller of crop sales income	Decision maker for stocks in shop
Female	11	14	16	24	24	16	18
Male	19	3	9	15	15	10	11
Joint	24	37	29	25	25	25	8
Total	54	54	54	54	51	51	37

The KIIs and FGDs revealed that more women than men participate in FFSs. Reasons given, by both men and women, were that men were less interested in participating or prioritized other activities. This could be because they received extension services from other providers, relied on a family member or friend to pass on the information, or did not see the value in participating. All FGDs indicated that women did not face additional barriers for participating in FFSs compared to men, but some men did note that women might need permission from their

husband to take away time from household responsibilities.

Perceptions of CAD Model's Benefit to Women

Supporting smallholder women farmers was an important component of the PROFIT+ program design. Respondents were asked “In your opinion, how has being a CAD helped women farmers in your community?” The responses are organized by the authors into categories in Table 4 along with the frequency of each response.

Table 4. How Being a CAD Helped Women Farmers in Your Community?

Category	Response	Frequency
Business Opportunities	Expanded businesses	4
	Easier marketing	4
Savings and Loans	Participation in financing groups	12
	Saving money	7
Knowledge Acquisition	Access to extension services	8
	Increased agricultural knowledge	24
	Increased business knowledge	3
Agricultural Practices	Local access to inputs	10
	Practicing improved farming methods	17
	Improved yields	5
Quality of Life	Self-reliance and self-confidence	8
	Able to educate children	2
	Improved quality of life	7
Other	Other	3

Not all respondents answered this question and respondents were permitted more than one answer. The most common responses related to Knowledge Acquisition and Agricultural Practices and resulted from agricultural extension services being delivered to women CADs who passed the knowledge on to

additional women. Many of the responses related to local access to knowledge and inputs. The presence of DHFs within communities and the schedule of trainings facilitated access to information for women who were previously excluded or unable to participate. Some women also reported being elected as leaders in

community development committees and other civil society organizations following their participation in the PROFIT+ program and increased stature within their communities. In response to this question and a question about how CAD's relationships with the community have changed, the majority of women indicated that being a CAD has raised their status in their communities. They perceive that they are now more respected and experience improved relationships with other community members because they are viewed as important service providers.

After participating in PROFIT+ activities, most respondents said that they changed their farming methods and saw improved harvests and earned more income. This helped alleviate some financial burdens such as school fees, hospital bills, food for household consumption, agricultural inputs, and also allowed investments in new assets and savings. Common comments from men and women during CAD interviews and FGDs was that, as a result of PROFIT+ activities, they saw that farming and agribusiness were viable ways to make real money in their communities. Men and women reported purchasing animals, rippers, plows, improved inputs, household effects, building homes, or even a car.

Challenges Facing CADs

CADs were asked about challenges in operating their shops. Answers included a lack of capital and access to credit as a barrier to expanding their business and serving more farmers; delays in input delivery; a lack of smallholder farmer interest in purchasing improved inputs; prices that were too high for local farmers; cheaper competing inputs from other suppliers or from Malawi. At the time of the fieldwork, 17 CADs reported that they were not yet operational because they faced difficulties in purchasing stocks or constructing their shops. This meant that the necessary inputs and tools for adopting

promoted practices were not locally available to all farmers that the model intended to support. Many CADs close their shops following harvest and cannot rely on them as a source of year-round income.

Additionally, some CADs that served as aggregators for buyers did not receive the money for purchasing commodities in time and farmers sold elsewhere. This was especially true for those selling maize because the Food Reserve Agency (FRA) has a limited budget and farmers were worried they would not have any buyer if they waited too long.

Another challenge noted by respondents was jealousy of community members. Many CADs reported improved relationships within their community because of appreciation for their services and increases in stature, but others noted facing difficulties with jealous non-CAD community members.

V. Conclusions

All smallholder farmers, particularly women, receive more extension advice compared to before the PROFIT+ program. One of the main factors was that CADs became sources of local information for other smallholder farmers. Based on interview responses from CADs, women are more willing to request advice from other women, but still request advice from men with great frequency. Women DHFs, CADs, and LFs became crucial sources of agricultural extension messages to other women and men farmers. Women were also successfully able to bring previously excluded women from their various social groups to learn at demonstration plots.

The PROFIT+ model built a network of women farmers who learned how to use improved technologies and, through CADs, could access

agro inputs close to their homes. Smallholder farmers involved in the PROFIT+ program became increasingly willing to adopt new technologies and practices that they saw succeed in their community. The adoption of new practices and technologies can lead to increased production and result in increased household food security and income.

The PROFIT+ CAD model successfully facilitated local access to and availability of extension services and inputs for community members. The linkage of community-based entrepreneurs to input supply companies and commodity buyers has shown improvements for smallholder farmer quality of life in Zambia and has great

potential for replication. Furthermore, by promoting women as extension providers and input suppliers, the PROFIT+ program was able to reach more women smallholders and created new livelihood opportunities within communities. The results suggest that women farmers have benefited from the PROFIT+ model because it addresses key gender-based constraints such as not being considered farmers by extension providers, time and travel-related obstacles to accessing extension services and inputs, and lack of income-generating and leadership opportunities. Now that extension services are provided locally, women can more fully participate and improve their agricultural practices.

References

- Aakesson, A., V. Pinga, and S. Titus. (2014). *Using Agriculture Extension Agents to Promote Nutrition: A Process Review of Three Feed the Future Activities in Ethiopia*. USAID/ Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) Project.
- Fanzo, J., Q. Marshall, J. Wong, R.I. Merchan, M.I. Jaber, A. Souza, and N. Verjee. (2013). *The Integration of Nutrition into Extension and Advisory Services: A Synthesis of Experiences, Lessons, and Recommendations*. Global Forum for Rural Advisory Services (GFRAS).
- FAO. (2011). *The State of Food and Agriculture 2010-2011: Women in Agriculture: Closing the gender gap for development*. FAO, Rome.
- Farnworth, C., V. Akamandisa and M. Hichaambwa. (2011). Zambia Feed the Future Gender Assessment. Produced for USAID
- Kuyper, E. and L. Schneider. (2016). *Conceptualizing the Contribution of Agricultural Extension Services to Nutrition Discussion Paper*. USAID/Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES) project.
- Manfre, C., D. Rubin, A. Allen, G. Summerfield, K. Colverson, and M. Akeredolu (2013). Reducing the Gender Gap in Agricultural Extension and Advisory Services - How to Find the Best Fit for Men and Women Farmers. USAID/Modernizing Extension and Advisory Services (MEAS) Discussion Paper.
- Rubin, D., Manfre, C. and K. Nichols Barrett. (2009). *Promoting Gender Equitable Opportunities in Agricultural Value Chains: A Handbook*. USAID/Greater Access to Trade Expansion (GATE) Project.

The World Bank. (2005). *Gender & “Shared Growth” in Sub-Saharan Africa: Briefing Notes on Critical Gender Issues in Sub-Saharan Africa.*

<http://siteresources.worldbank.org/EXTABOUTUS/Resources/GenderGrowth.pdf>

The World Bank, FAO, IFAD. (2009). *Gender in Agriculture Sourcebook.* The World Bank.
<http://siteresources.worldbank.org/INTGENAGRLIVSOUBOOK/Resources/CompleteBook.pdf>

The World Factbook: ZAMBIA. (2017). www.cia.gov/library/publications/the-world-factbook/geos/za.html

Tucker, T., D. Dolly, M. Phiri, and M. Chisi. (2015). *Assessment of and Recommendations for Strengthening the Pluralistic Agricultural Extension System in Eastern Province, Zambia: A MEAS Rapid Scoping Mission.* USAID/Modernizing Extension and Advisory Services (MEAS) project report.

Box 4. Ms. Phiri*, Chipata District.

Ms. Phiri is a 46-year-old female CAD. She lives with her four children in Feni village of Chipata district, 23km from Chipata town. Ms. Phiri makes her living as a smallholder farmer and is also involved in agri-business.

Before the PROFIT+ program, she farmed and sold maize and beans and did not earn enough income to support her family. She farmed one-and-a-half hectares of land and harvested twenty-eight 50kg bags of maize.

When PROFIT+ began activities in 2012, Ms. Phiri became a DHF and was selected through the Chipata Women Development Association to attend an Aflatoxin training. During this training, she learned that farming is a business and how to use the new farming technologies of certified seed, herbicides, and blended fertilizer.

After the training, she was given 0.5kg of tomato and onion seeds for a demonstration plot. Ms. Phiri harvested 2,000kg of tomato and 300kg of onion from the demonstration plot. Despite this level of production, she faced challenges marketing her harvest. She sold a small amount and the remaining harvest was shared among the lead farmers and smallholder farmers who worked with her in the demonstration plot.

In 2013, Ms. Phiri was selected as a CAD and was trained in entrepreneurship skills. She continued to train farmers in farming technologies for open field and horticultural crops. She also adopted the new farming technologies and expanded her production from the utilization of one-and-a-half hectares to three hectares of land. In the 2013-2014 farming season, she harvested eighty-four 50kg bags of maize from which she sold sixty bags at ZMW75.00 each for a total of ZMW4,500.00. Ms. Phiri used the money to electrify her house, continue farming, and build an agro shop.

PROFIT+ also trained her in agri-business savings and credit group models. She rolled out the training to other smallholder farmers involved in her savings group. Ms. Phiri saved ZMW1,200 and received ZMW7,000 at the share-out meeting. The money was used to buy inputs to stock her agro shop, from which she earned ZMW12,000, a profit of ZMW5,000. Ms. Phiri is now linked to seven input suppliers. She has stock worth ZMW14,836 in her shop and the input companies are in the process of increasing her stock.

Through the technologies promoted by PROFIT+, Ms. Phiri and the smallholder farmers she works with are happy. They have enough food for consumption needs at home and have increased income. “We used to have one or two meals per day but this time we have enough meals,” she happily says. Farmers have learned how to save money in preparation for the farming season and approach farming as a business. Some save in agri-business savings groups established by CADs and others have opened bank accounts.

Ms. Phiri thanks the PROFIT+ program for improving the standard of living in her community, and enabling her and other farmers to support their children and send them to school.

*Respondent's name has been altered for privacy

Appendix A: CAD Decision Making Data Tables

	Decision maker on use of land			Decision maker on crops grown			Decision maker on planting time		
	Female Resp.	Male Resp.	Total	Female Resp.	Male Resp.	Total	Female Resp.	Male Resp.	Total
Respondent	11	12	23	14	3	17	16	7	23
Spouse	6	0	6	0	0	0	2	0	2
Joint	11	13	24	15	22	37	11	18	29
Other	1	0	1	0	0	0	0	0	0
Total	29	25	54	29	25	54	29	25	54

	Decision maker on adoption of new farming practices			Decision maker on where to sell crops			Controller of crop sales income			Decision maker for stocks in shop		
	Female Resp.	Male Resp.	Total	Female Resp.	Male Resp.	Total	Female Resp.	Male Resp.	Total	Female Resp.	Male Resp.	Total
Respondent	23	14	37	15	5	20	14	7	21	18	11	29
Spouse	1	1	2	2	1	3	3	2	5	0	0	0
Joint	5	10	15	11	17	28	11	14	25	3	5	8
Total	29	25	54	29	25	54	29	25	54	21	16	37

*17 CADs not yet in business



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