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Women's Economic Empowerment and Leadership

Examining an intervention for smallholder farmers delivered via farmer producer organizations in Guatemala using qualitative methods

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EXECUTIVE SUMMARY

Women work across multiple nodes in agricultural value chains, though their participation in value chains varies within and across contexts and their contributions are often underrecognized (Malapit et al., 2020; Quisumbing et al., 2021). Addressing issues such as weak economic growth, climate change, and hunger will require strengthening agricultural value chains, though doing so without a gender-sensitive lens may exacerbate existing gender inequalities within them (Rubin & Manfre, 2014). Development practitioners seeking to strengthen agricultural value chains are increasingly interested in programs that use group-based approaches, as they may reach many people efficiently using such a strategy. However, there is not much evidence on how to increase women's economic opportunities in agricultural value chains and bolster women's leadership within the context of group-based interventions.

TechnoServe, with funding support from the Walmart Foundation, began implementing the Smallholder Market Access (SMA) program in Guatemala and Nicaragua in 2019. The goal of this program was to work with farmer producer organizations (FPOs) and affiliated smallholder farmers in fresh produce agricultural value chains (AVCs) to increase the productivity, profits, and the market share of FPOs among smallholder farmers. The program also sought to strengthen women's inclusion in AVCs, leadership, and empowerment by offering both gender-responsive and gender-transformative program components, particularly though agronomy trainings and gender equality trainings for women and men, as well as women's leadership trainings for women only.[1]

This qualitative study focuses on SMA in Guatemala. We investigated gender dynamics in FPOs, women's empowerment, women's leadership, and how SMA may influence these themes. Ultimately, the goal of this study was to gain insights on the strengths of SMA programming with regard to women smallholder farmers' economic and leadership opportunities, as well as to identify opportunities to strengthen the program. We collected data from in-depth interviews with eight SMA staff, nine FPO leaders, and 18 FPO members. We also conducted six single-sex focus group discussions with FPO members,

[1] Gender-responsive approaches identify and address unique barriers and needs according to gender. Gender-transformative approaches aim to address the root causes of gender inequality by transforming structural barriers and harmful norms.

which included 15 women and 13 men total. The FPOs sampled did not receive the full SMA treatment prior to data collection; as such, the results presented in this study reflect perceptions of different components of SMA that had been only partially implemented prior to data collection.

Overall, SMA's training package was perceived positively among women and men. Both women and men cited higher quality produce, increased profit, and improved ability to save money as benefits of FPO and SMA participation. Women in particular reported increased agricultural knowledge and increased self-confidence as a result of their SMA participation. Women's improved self-confidence may stem from SMA's leadership trainings. We also found that women often face unique barriers to engaging in the FPOs and SMA activities, including childcare responsibilities and a need for spousal approval to participate. Although SMA began offering childcare, its availability was inconsistent, which may explain why respondents in this study mentioned lack of childcare as a constraint to SMA participation. The need for women to seek their husband's permission to participate in FPO and SMA stems from men's concerns about women neglecting their domestic responsibilities, maintaining fidelity, and expectations that women should be deferential to their husband. Finally, we found that access to leadership positions differs for women and men. Different types of leadership roles are acceptable for women and men, and women's leadership is often aligned with professional caregiving roles (e.g., nursing, teaching). Women's time outside the home is limited by domestic duties, and it is more acceptable for men to hold public-facing roles, largely because men are already present in these spaces. Moreover, women perceived a lack of spousal and community support for women in leadership roles.

Overall, the SMA program offers a promising package of strategies, including both gender-responsive and gender-transformative approaches, to reach their objectives of increasing smallholder farmers' incomes, expanding women's economic opportunities through FPOs, and bolstering women's leadership. Future versions of SMA and similar programs implemented can learn from and build on SMA's successes and lessons as they aim to enhance women's empowerment and leadership via agricultural collectives, or other group-based interventions. We conclude the paper with recommendations that program im-

plementers could use to enhance their future programming. These recommendations fall within four categories: program attendance, program staff and delivery, women's leadership, and beneficiaries' uptake of lessons learned. We elaborate on the recommendations within each category below.

Program attendance

- *Provide childcare to ensure women with young children can attend trainings and fully engage in them*. This gender-responsive approach may help mitigate women's time burden.
- *Support men in taking on caregiving responsibilities to release women's time to participate in trainings and related activities*. Incorporating gender transformative approaches, as SMA already does, may encourage a more equitable distribution of unpaid care work and free women's time to participate in group-based trainings.
- *Mitigate the burden of transportation*. Providing subsidized bus fares or travel stipends may help prospective beneficiaries attend trainings. Additionally, hosting trainings in multiple locations may offer beneficiaries the option of choosing a training location most conveniently located for them, reducing potential transportation challenges among program participants.

Program staff and delivery

- *Hire a staff member with expertise in developing learning materials and approaches for adult learners in low-literacy populations to support curriculum design*. SMA hired a staff member who specialized in working with low-literacy adults to address the specific needs of SMA participants; such experts can help strengthen curricula and training materials for the intended recipients.
- *Hire a national gender specialist that is involved from program conceptualization to end*. Having an individual with this expertise on staff is critical for building gender capacity among other staff members and delivering gender-responsive and gender transformative programming. SMA hired a gender specialist who was with SMA for the majority of the program.

- *Ensure women are hired as program staff*. This gender-responsive approach can mitigate concerns expressed by some men about women interacting with men outside of their families. SMA had a few women staff members when data were collected and is aiming to recruit more in the future.
- *Ensure program staff speak the full breadth of local languages, particularly in linguistically diverse contexts like Guatemala.* Delivering content in local languages makes it easier for beneficiaries to learn, retain, and eventually apply technical content. However, in contexts where a wide number of languages are spoken, hiring staff that have both the appropriate technical expertise and speak multiple local languages may prove challenging.
- *Repeat key themes, particularly those about gender equality and women's leadership, across multiple training sessions.*
- *Provide program participants with graphic aids to take home.* Though SMA provided audio-visual materials to beneficiaries in Mayan languages, several participants specifically suggested that developing and distributing additional graphic aids may help them remember the training material.

Women's leadership

- *Create and maintain women-only spaces*. Creating women-only spaces within male-dominated FPOs may facilitate women's leadership as it may give women safe spaces to support one another, develop their self-esteem, and practice applying the leadership skills gained from a training program. Further, in contexts where women are encouraged to limit their interactions with men outside their, women-only groups may be more effective. The women's leadership component of SMA offers such women-only spaces.
- *Engage men on women's leadership and increase community acceptance of women's leadership using community dialogues* (i.e., a gender transformative approach that engages a variety of community members to discuss and challenge gender norms and related behaviors). Such

approaches may encourage women and men to reflect on how leadership responsibilities may be shared among genders and to challenge gender norms that constrain women's leadership.

Beneficiaries' uptake of lessons learned

- *Support smallholder farmers in acquiring agricultural inputs to offset the high cost of agricultural inputs*. Program implementers may consider linking FPOs to agri-dealers to support bulk purchasing and foster competitive pricing or subsidizing the purchase of the agricultural inputs needed to operationalize the technical advice gleaned from agronomy trainings.

Keywords: agricultural value chains, farmer producer organizations, gender, market access, women's empowerment, gender-responsive approaches, gender-transformative approaches

ACRONYMS

ANEW	Applying New Evidence for Women's Empowerment
COCODE	Consejos Comunitarios de Desarrollo Urbano y Rural
EFF	Empowering Farming Families
FGD	Focus group discussion
FPO	Farmer-producer organization
IDI	In-depth interview
IFPRI	International Food Policy Research Institute
Pro-WEAI+MI	Project-level Women's Empowerment in Agriculture Index for Market inclusion
SMA	Smallholder Market Access Program

1. INTRODUCTION

Women work across multiple nodes in agricultural value chains including production, processing, and retail, and often occupy several different nodes simultaneously (Malapit et al., 2020). However, the nature of their participation varies within and across contexts, and women's contributions to and participation in agricultural value chains are often unrecognized or undervalued (Quisumbing et al., 2021). Strengthening agricultural value chains is critical to addressing issues such as weak economic growth, climate change, and hunger, but doing so without a gender-sensitive lens may exacerbate existing gender inequalities (Rubin & Manfre, 2014).

Beginning in 2019, TechnoServe, with funding support from the Walmart Foundation, began implementing the Smallholder Market Access (SMA) program in Guatemala and Nicaragua. This program aims to increase productivity, revenue, and profits among smallholder farmers in fresh produce value chains. SMA also aims to increase the revenue, profits, and market share of the farmer producer organizations (FPOs) with which these smallholder farmers are affiliated. SMA uses FPOs to deliver its programming, as FPOs and SMA share common goals (e.g., increasing the income and resiliency of fresh produce smallholder farmers), as well as FPOs enabling SMA to reach many smallholder farmers efficiently.

Further, in a context where the majority of primary FPO members and leaders are men, the SMA program aims to increase women's leadership and empowerment among women affiliated with FPOs (either members or wives of primary members). SMA did so by integrating by gender-responsive and gender transformative approaches. Gender-responsive approaches identify and address unique barriers and needs according to gender. These may include providing childcare, addressing women's household labor demands, or making it possible for women to move safely in their communities, among other approaches. Gender-transformative approaches aim to address the root causes of gender inequality by transforming structural barriers, developing gender-transformative policies, and addressing harmful norms. Additionally, emerging evidence has found that agricultural collectives such as FPOs have the potential to address

gender inequalities (section 1.1), making FPOs an ideal place to test SMA's theory of change regarding women's leadership and empowerment.

In this report, we focus on the SMA program in Guatemala and present results from three FPOs in the Sololá and Chimaltenango departments. We examine how internal FPO relationships affect the economic opportunities and empowerment of women and men, beneficiaries' experiences of the SMA program and how the program can be strengthened given these experiences, and how women operate as leaders in various social contexts (i.e., family, FPO, and community contexts). We are motivated to better understand how FPO-based interventions can foster women's empowerment, given that estimates of women's empowerment found only 22.8 percent of Guatemalan women are empowered and only 35.8 are at least as empowered as the primary male decision maker in their household (IFPRI, 2012). Moreover, these estimates are more than a decade old, and more recent work is needed to fill gaps in evidence regarding women's empowerment. This work is part of the Applying New Evidence for Women's Empowerment (ANEW) portfolio, which aims to generate evidence on what works to empower women in agricultural collectives. ANEW is explained in further detail in section 1.4.

1.1 Farmer Producer Organizations (FPOs)

Typically, FPOs are formalized organizations (e.g., legal status, bylaws) that aim to connect smallholder producers to markets, to ultimately increasing production and profits for their members. There is mixed evidence suggesting that FPO and other agricultural collective membership is linked with increased profits and/or household income among members and access to service provisions. Additionally, some evidence suggests agricultural collectives may help address gender inequalities.

Looking to the economic benefits of membership in an FPO, in Kenya, smallholder banana cooperatives were associated with adoption of recommended agricultural practices and improvements in household incomes (Fischer and Qaim 2012a). In Rwanda, cooperatives may be able to increase profits and incomes for poorer farmers with longer distances to agricultural markets by coordinating sales and delivering extension services (Verhofstadt and Maertens 2015). Evidence from vegetable producer groups

in Cambodia, however, did not find positive effects on income, but did find positive effects on access to technical information, credit access, and use of water saving irrigation strategies—all of which are tied to services facilitated by producer groups (Ofori, Sampson, and Vipham 2019).

The literature regarding how membership in an FPO or other agricultural collectives is less straightforward than documentation of the economic or technical benefits. The existing literature suggests that in many contexts, agricultural collectives emphasize the importance of equitable and democratic decision making among members, and this may have the potential to spill over into more equitable decision making between husbands and wives, particularly if women and their spouses are members (Burchi and Vicari 2014; Fischer and Qaim 2012b). Additionally, qualitatively, women honey producers in Ethiopia felt increased agency and self-esteem stemming from their membership, and complementary quantitative evidence found that cooperative membership increased the quantity of honey sold and the price (Serra and Davidson 2021). In Brazil, a mixed-methods study found that cooperative membership led to more shared decision making between spouses (Burchi and Vicari 2014). Likewise, women members of a large agricultural collective in Uganda reported that membership led them to have increased voice in the community, better negotiating skills, and more control over agricultural production (Ferguson and Kepe 2011). However, a different study from Uganda found that cooperative membership led to increased decision-making power for women, but membership did not lead to shifts in how women and men allocated labor, suggesting no benefits for women's labor burdens, or worse, possible negative consequences as labor requirements may increase in the context of future interventions (Lecoutere 2017).

Increasingly, development practitioners have been interested in delivering interventions using group-based approaches, as such approaches allow them to reach many people efficiently. Existing evidence suggests that group-based approaches foster collective agency and/or action, or actions taken by a group to advance a shared interest (Meinzen-Dick, DiGregorio, and McCarthy 2004). Additionally, evidence suggests group-based approaches may also increase members' instrumental agency, one's ability to

make decisions and enact one's goals, and intrinsic agency, one's self-efficacy and the awareness of rights (Freire 1972; Lukes 1974; Rowlands 1995, 1997; Kabeer, 1999; Brody et al. 2015, 2017).

Despite the growing body of literature on the value of membership in FPOs and other types of agricultural collectives for women's empowerment, there is less evidence on the types of intervention strategies and FPO structures that may bolster women's empowerment. Beginning to fill these knowledge gaps is one of the goals of this report, as further elaborated in the next section.

1.2 Study objectives

The purpose of this study is to develop an understanding of gender dynamics, women's empowerment, and leadership in the context of FPOs in Guatemala and examine how the SMA program potentially influenced these outcomes. The intention in doing so is to help identify potential pathways to enhanced economic opportunities, economic empowerment, and leadership among women who engage with FPOs in Guatemala. Specifically, this report answers the following research questions and sub-questions:

- **Research question 1**: How do FPO relationships (among and between leaders and members) affect women's and men's economic opportunities and economic empowerment?
    a. Why do women and men (leaders and members) engage in the FPOs?
    b. How do women and men (leaders and members) engage in the FPOs?
    c. What are the perceived benefits and challenges of engaging in FPOs?
    d. What are the leadership dynamics of the FPOs and how do they affect the FPO and individuals who engage in it?
- **Research question 2:** How does SMA benefit trainees and FPOs? How can SMA be improved?
    a. Why do women and men (leaders and trainees) participate in SMA?
    b. How do different program actors perceive the benefits and shortcomings of the SMA program?
    c. What factors constrain women's and men's engagement in SMA?

d. How can TechnoServe and FPOs address constraints to women's and men's engagement in SMA?

- **Research question 3:** How are women able to function as leaders on individual, family, FPO, and community levels?
    a. How do social norms facilitate and constrain women's leadership on individual, family, FPO, and community levels?
    b. How are leadership qualities understood among women and men?
    c. How are women and men who embody leadership qualities regarded on individual, family, FPO, and community levels?

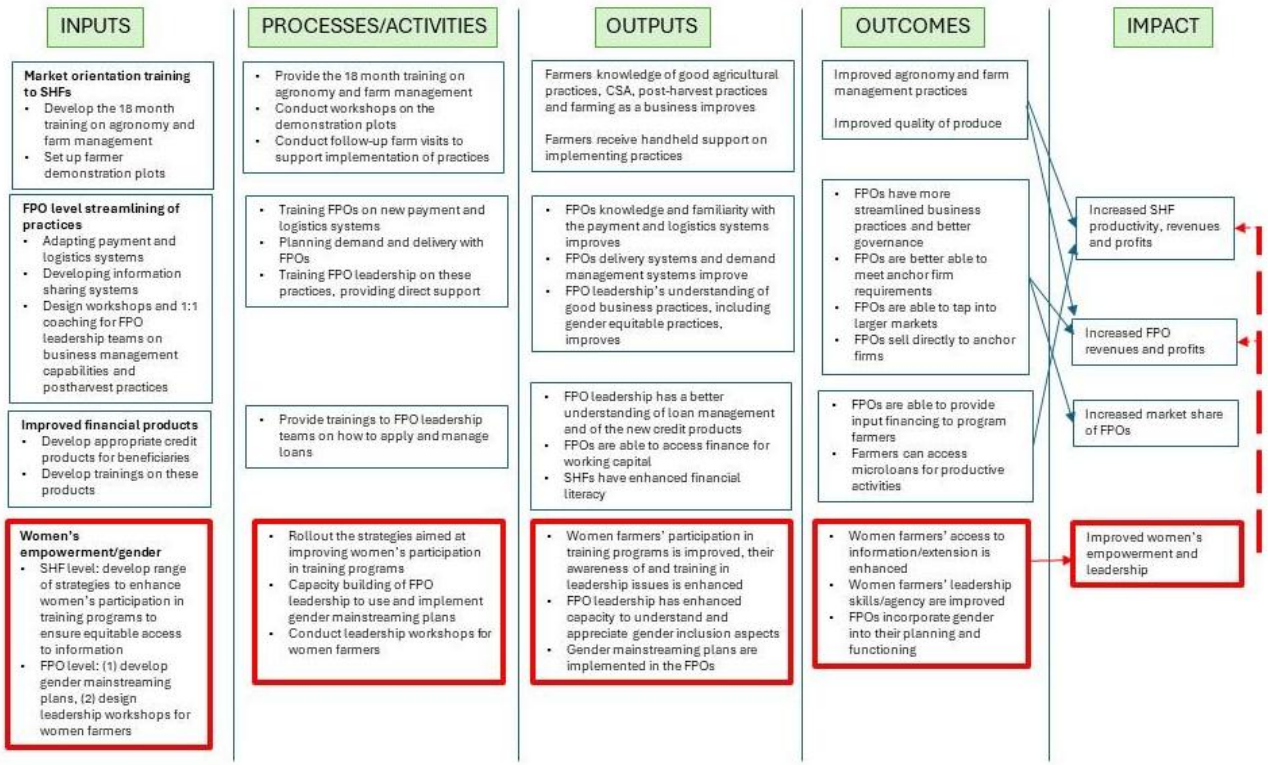
While the focus of this report is on TechnoServe's SMA program in Guatemala and the delivery of interventions via FPOs, this study identifies lessons that may be applicable to other interventions that are delivered via agricultural collectives and approaches that aim to enhance women's economic empowerment, market access, and leadership in low-resource settings. The rest of the report is structured as follows: section 1.3 describes the SMA program in greater detail, section 1.4 describes the ANEW portfolio (the research portfolio to which this work belongs), section 1.5 describes the Guatemalan context, section 2 describes the methods, section 3 presents the results, and section 4 is a discussion of the findings and their implications for gender equality in development.

1.3 The Smallholder Market Access (SMA) program

The SMA program, which focuses on the fresh produce market system, seeks to generate increased financial benefits and resiliency for 3,600 smallholder farmers in Guatemala and Nicaragua by working with FPOs and their affiliated farmers. Three of its four primary anticipated impacts focus on economic outcomes at the farmer and FPO level. To accomplish these aims, the program trains FPO members and leaders on agricultural production and business development, and links FPOs with anchor buyers to support members in marketing their fresh produce. SMA also aims to enhance women's leadership and economic empowerment within the fresh produce market system by delivering women-only

leadership workshops to women FPO members/beneficiaries, training women and men FPO members on gender equality, and ensuring women have access to extension services, and strengthening gender mainstreaming at the FPO leadership level. *Figure 1* depicts the theory of change for the SMA program. The SMA program entered its second phase in 2022, and the impacts of this program are also being evaluated under the Applying New Evidence for Women's Empowerment (ANEW) portfolio, as described in section 1.2.

Figure 1. Theory of change for TechnoServe's Smallholder Market Access program



Source: Authors' elaboration of TechnoServe project documents.

Note: The bolded boxes highlight the pathway expected to enhance women's empowerment and leadership

The second phase of SMA provided trainings at FPO and producer levels. At the FPO level, FPO leaders received training on planning for future harvests and their delivery, new payment systems, how to apply for and manage loans, and how to use and implement gender mainstreaming plans. The present study largely examines the producer-level components of SMA.

The producer-level trainings included topics related to agricultural production, women's leadership, and gender equality. The agronomy trainings, administered to women and men, included information on agronomy, as well as farm and business management. The agronomy trainings also included workshops on demonstration plots for participating producers, and SMA staff had follow-up visits to farms, to support smallholder farmers with implementing the lessons learned in the agronomy trainings. The goal of this technical assistance was to enhance the quality of farmers' agricultural products, and ultimately bolster farmers' incomes. The agronomy trainings were delivered by a team of SMA staff including women and men; one staff member was a woman who was on maternity leave at the time of data collection for this study.

The women's leadership component of SMA, which targeted women FPO members, aimed to enhance women's confidence and voice, as well as their capacity to serve as FPO leaders in the future. The leadership trainings strengthened women's intrinsic ("power within"), instrumental ("power to"), and collective ("power with") agency. The leadership curriculum encouraged women to identify the leadership qualities they embody, and foster women's self-awareness and self-confidence. The women's leadership trainings utilized participatory activities, group discussions, and collaborative problem-solving exercises with SMA beneficiaries. The women's leadership training at the producer level was a critical component of SMA, considering that few women serve as formal leaders across all participating FPOs.

The gender equality component of SMA was delivered through the Empowering Farming Families (EFF) curriculum, which was a producer-level training administered to women and men FPO members and leaders. EFF prompted women and men to challenge gender roles, as well as to improve commu-

nication skills between women and men to facilitate joint decision-making within their respective households. This curriculum used a combination of a safe spaces approach (i.e., sex-segregated groups for discussion), role-playing exercises and mixed-sex plenary sessions to analyze the exercises' outcomes, and reflective group discussions about gender roles, communication dynamics, and decision-making. The women's leadership and EFF curricula were supported by a gender specialist.[2]

1.4 The Applying New Evidence for Women's Empowerment (ANEW) Portfolio

Evidence on how value chain programming may facilitate women's empowerment and how to integrate gender-responsive and gender-transformative approaches into this programming is scarce, including on how to do so through agricultural collectives. The ANEW project aims to close some of these evidence gaps. Funded with a grant from the Walmart Foundation, ANEW is a portfolio of four projects in three countries (Guatemala (the focus of the present study), India, and Mexico). The four projects all focus on high-value commodities that are sold via agricultural collectives (e.g., FPOs, cooperatives). Each project in the portfolio also specifically aims to increase women's empowerment using a group-based approach.

ANEW has three primary aims: (1) build on the project-level Women's Empowerment in Agriculture Index for Market Inclusion (pro-WEAI+MI), which is designed to measure women's empowerment with component indicators that are specific to agricultural value chains (Malapit et al., 2023), by developing additional indicators that are relevant to high-value commodities and collectives; (2) generate new evidence on what works to empower women; and (3) increase the capacity for monitoring, evaluation, and learning of implementing partner organizations. In addition to an impact evaluation being conducted by each project in the portfolio, qualitative pro-WEAI+MI protocols were developed to use in complementary studies that aimed to better understand the gender context related to each project being implemented and address questions related to how and why the programs within the ANEW portfolio

[2] The gender specialist was with SMA for the majority of the program. She left the position before data collection began for this study and thus was not interviewed. The role has since been filled.

were (or were not) successful in achieving their gender-related and women's empowerment objectives. This mixed-methods approach aims to build evidence related to barriers and facilitators of women's empowerment in agricultural value chains.

1.5 Guatemalan context

Guatemala is a diverse and multilingual country and recognizes 23 different languages spoken by different ethnic groups (MSPAS/Guatemala et al., 2017). The Central and Southwest regions of Guatemala (in which the study areas are located; Sololá is in the Central region and Chimaltenango is in the Southwest region) have among the highest concentration of indigenous populations nationally, where most people speak Mayan languages (MSPAS/Guatemala et al., 2017). Across Guatemala, indigenous populations are typically underserved by government and development partners and have poor development outcomes (USAID, 2023).

Nationally, agriculture, cattle breeding, hunting, forestry and fishing constitute 10.2 percent of the gross domestic product (ILO, 2021). Twelve percent of women and 40.3 percent of men work in agriculture, and 46.3 percent of those working in agriculture identify as members of Mayan groups indigenous to the region (ILO, 2021). Nationally, 14 percent of women and eight percent of men have no formal education (MSPAS/Guatemala et al., 2017). Educational outcomes are relatively worse in the departments where SMA is being implemented; 11 percent of women and six percent of men in the Chimaltenango Department and 19 percent of women and nine percent of men in the Sololá Department have no formal schooling (MSPAS/Guatemala et al., 2017). Generally in Guatemala, indigenous populations have less formal education relative to the non-indigenous population; nationally, 21.9 percent of indigenous women and 10.6 percent of indigenous men relative to 7.7 percent of non-indigenous and 4.8 percent of non-indigenous men have not received any formal education (MSPAS/Guatemala et al., 2017).

Gendered social norms among Mayan communities in Guatemala hold that women are responsible for the reproductive and domestic spheres, and men are responsible for earning an income outside the home (Ehlers, 2000; Hendrickson, 1995; Wehr et al., 2014). While men are expected to be the primary

breadwinners, women also contribute to household income—often through the sale of small goods (e.g., food, clothes) or by starting small businesses (Wehr et al., 2014). Paternal grandmothers are highly respected in Mayan culture, given their existing expertise with regard to raising children, though mothers and paternal grandmothers may clash from time to time (Ehlers, 2000; Wehr et al., 2014).

Additionally, Guatemala ranks among the highest globally for rates of violent deaths of women (UN Women, 2023). Nationally, 20 percent of Guatemalan women have experienced physical violence , though the prevalence is lower in study areas (14.7 percent in Chimaltenango and 16.8 percent in Sololá). Prevalence varies by education level, whereby women with less formal education experience the most violence (MSPAS/Guatemala et al., 2017). Relatedly, eight percent of women aged 15 – 49 have experienced sexual violence (MSPAS/Guatemala et al., 2017). Indigenous women experience higher levels of sexual violence (ten percent) relative to this national average, though levels are again lower in the study area relative to the national average (six percent in Chimaltenango and four percent in Sololá; MSPAS/Guatemala et al., 2017). Ethnographic evidence suggests that violence may be cross-generational, with men verbally or physically abusing their children, or perpetrated by those outside the family (Goldín et al., 2015). While the study herein does not address violence, such context is critical to understanding the broader gender dynamics women face in Guatemala.

Estimates from the Women's Empowerment in Agriculture Index, a precursor to the pro-WEAI+MI, which is being further developed in ANEW, found that the largest contributors to women's disempowerment in Guatemala were a lack of women in leadership in the community, lack of control over use of income, and lack of control over resources (Alkire et al., 2013; IFPRI, 2012). Men in the study area experienced higher levels of empowerment compared to women, and the domains contributing to their disempowerment were similar to those disempowering women (IFPRI, 2012).

2. METHODS

For this study, the research team conducted single-sex focus group discussions (FGDs) and in-depth interviews (IDIs) with FPO leaders, FPO members, and SMA staff. All respondents from FPOs were affiliated with an FPO that participated in the SMA program; two FPOs were in the Sololá department (where K'iche' is the primary indigenous language spoken by the FPO members, alongside Spanish) and one FPO in the Chimaltenango department (where Kaqchikel is used, alongside Spanish). These three FPOs were selected in consultation with TechnoServe and the data collection team, based on where specific program components had been implemented, as well as the safety of the data collection team.

The three FPOs selected represent only a few of the FPOs participating in SMA. Specifically, the three FPOs were among those that had some exposure to the gender equality and women's leadership trainings, though they had not received as much of these trainings as some of the other FPOs at the time of data collection. Two of the FPOs had received the women's leadership training (but none of the EFF) and one of the FPOs had received the EFF training (but none of the women's leadership training) at the time of data collection. *Table 1* summarizes the department and languages commonly spoken among members of each FPO and whether that FPO had received the women's leadership or EFF at the time of data collection. All FPOs included in the study had between 20 to 70 members, and primarily sell horticulture export crops, including sweet peas, sugar snap peas, green beans, broccolini, and avocado.

Table 1. FPOs included in the sample

FPO	Department	Languages	Women's leadership training	EFF training
#1	Sololá	K'iche' Spanish	No	Yes
#2	Sololá	K'iche' Spanish	Yes	No
#3	Chimaltenango	Kaqchikel Spanish	Yes	No

2.1 Data collection

We identified study participants who were FPO members, FPO leaders, or SMA program staff.[3] Among FPO members and leaders, we identified those who had participated in SMA programming (i.e., the agronomy trainings, and women's leadership and/or gender trainings where possible). We selected frontline SMA staff who regularly interfaced with the program beneficiaries in trainings. All participants were between 18 and 55 years old. We intended to collect nine IDIs with SMA staff (nine men, as only male staff served in the study area), nine IDIs with FPO leaders (three women and six men), and 18 IDIs with FPO members (nine women and nine men) (*Table 2)*.[4] We completed eight IDIs with SMA staff (eight men), nine IDIs with FPO leaders (three women and six men), and 18 IDIs with FPO members (11 women and seven men) for a total of 35 IDIs. *Table 3* shows the majority of IDIs were conducted in Spanish, but IDIs with FPO leaders and members were also conducted in K'iche' and Kaqchikel. All IDIs were conducted in May 2023.

Table 2. Planned vs. completed in-depth interviews

	Women		Men	
	Planned	Completed	Planned	Completed
SMA staff[1]	0	0	9	8
FPO leaders	3	3	6	6
FPO members	9	11	9	7
Total	12	14	24	21

[1]SMA has one woman staff member, though she was on parental leave at the time of data collection. As such, we did not plan to interview any women SMA staff members.

Table 3. Language of in-depth interviews by respondent type

	Language			
Respondent type	Spanish	K'iche'	Kaqchikel	Two languages (Spanish and Kaqchikel)
SMA staff	8	0	0	0
FPO leaders	8	1	0	0
FPO members	8	6	3	1
Total	24	7	3	1

[3] Many women are not formal FPO members, but receive some of the benefits through their husband's membership. All women included in this study were formal members.

[4] Overall, among the FPOs that participate in SMA in Guatemala, there are fewer women in formal FPO leadership roles than men. It would have been infeasible to sample two women and two men FPO leaders from three FPOs for this study. Hence, fewer IDIs with women FPO leaders were planned.

As for FGDs, we planned to complete three with women and three with men FPO members, with six to eight individuals in each FGD. We completed the target number of FGDs, though were unable to identify the target number of number of participants in each, due to their limited availability, and therefore FGDs ranged from three to six respondents each. In total we completed six FGDs, three with a total of 15 women total and three with a total of 13 men (*Table 4).* All FGDs were conducted in local languages (*Table 5).* Across all IDIs and FGDs, a total of 63 people participated in the study. All FGDs were conducted in May 2023.

Table 4. Planned vs. completed focus group discussions

	Women			Men		
	Planned	Completed		Planned	Completed	
Number of FGDs	3	3[1]		3	3	
Total FGDs	3	3		3	3	
Number of participants	6 - 8	5	5 5	6 - 8	6	3 4
Total participants	18 - 24	15		18 - 24	13	

[1]Note: Only 2 of the 3 women-only FGDs were asked about the women's leadership training component of SMA as only 2 FPOs had received the training at the time of data collection; no men-only FGDs were asked about the women's leadership training as men were not the intended recipients of the training.

Table 5. Languages of FGDs by gender

	Language	
Gender of FGD	K'iche'	Kaqchikel
Women	2	1
Men	2	1
Total	4	2

The field team members who conducted the IDIs and FGDs included eight women fluent in either K'iche' or Kaqchikel, in addition to Spanish, with previous qualitative data collection experience. They participated in a four-day training that covered use of the semi-structured discussion guides developed for this study, research ethics, gender concepts, and interviewing and facilitation strategies. During the training the field team also translated the question guides from Spanish to K'iche' and Kaqchikel with attention to key gender and empowerment concepts. The question guides, for IDIs and FGDs, included questions around the following themes: why and how women and men engage with their FPOs, what they

liked about participating in SMA, what made their participation in FPOs and/or SMA difficult, program implementation, perceptions of women in leadership roles, and gender norms (see APPENDIX 1 for a summary of the key themes included in each question guide for each respondent type).

Informed oral consent was obtained prior to the start of each FGD and IDI in each respondent's preferred language. Separate consent was also sought to record. All IDIs and FGDs were audio-recorded, and study participants were compensated with lunch or snacks for their time. The study was approved by the Institutional Review Board at the International Food Policy Research Institute (IFPRI).

2.2 Analysis

The audio recordings were transcribed into Spanish, including simultaneous translation from K'iche' or Kaqchikel if needed, by a team of experienced transcriptionists. They were then translated into English for analysis. Analysis was conducted on the English versions of the transcripts with reference to the Spanish versions as needed. A deductive coding scheme was developed, based on themes identified in the literature, through discussion with TechnoServe technical staff, as well as by reviewing the research questions and question guides (i.e., the IDIs and FGD guides) used during data collection. Each transcript was then reviewed by a member of the research team, who applied the codes using MaxQDA software. The coding output of one or more codes was used to conduct the thematic analysis, which aimed to identify and analyze patterns in the dataset (Braun & Clarke, 2006). For instance, "Benefits of FPO engagement" (section 3.1) was developed using codes called personal benefits of FPO engagement, household benefits of FPO engagement, and community benefits of FPO engagement. "Leadership qualities" (section 3.7) used codes called women's leadership qualities and men's leadership qualities. All results presented stem from spontaneous responses from study participants, unless otherwise noted.

The results we present describe only the experiences of some SMA beneficiaries in two affiliated FPOs that had received the women's leadership component of SMA (but none of the EFF) and another FPO that received only part of the EFF training (but none of the women's leadership training) prior to data collection. As such, the perspectives of FPO leaders, members, and SMA staff that we present do not

reflect the full SMA treatment. Notes about the partial implementation of the different SMA components are reiterated within the results sections as relevant to better contextualize the results.

3. RESULTS

The results are presented in broad sections and mapped to the research questions and sub-questions (*Table 6*). We lead with a discussion of FPO dynamics—benefits of FPO participation, FPO leadership, and constraints to FPO participation—to provide context around the women, men, and organizations who participate in and benefit from the SMA program. Results about the SMA program examine the benefits of participation in and constraints to SMA's effectiveness. The discussion of women's and men's gender roles provides additional cultural context, to lay groundwork to discuss women's leadership in the final sections of the report.

Table 6. Research questions and corresponding results sections

Research questions and sub-questions	Section(s)[1]
Research question 1: How do FPO relationships (among and between leaders and members) affect women's and men's economic opportunities and economic empowerment?	
a. Why do women and men (leaders and members) engage in the FPOs?	3.1
b. How do women and men (leaders and members) engage in the FPOs?	3.1, 3.2
c. What are the perceived benefits and challenges of engaging in FPOs?	3.1, 3.3
d. What are the leadership dynamics of the FPOs and how do they affect the FPO and individuals who engage in it?	3.2
Research question 2: How does SMA benefit trainees and FPOs? How can SMA be improved?	
a. Why do women and men (leaders and trainees) participate in SMA?	3.4
b. How do different program actors perceive the benefits and shortcomings of the SMA program?	3.5
c. What factors constrain women's and men's engagement in SMA?	3.5
d. How can TechnoServe and FPOs address constraints to women's and men's engagement in SMA?	3.5
Research question 3: How are women able to function as leaders on individual, family, FPO, and community levels?	
a. How do social norms facilitate and constrain women's leadership on individual, family, FPO, and community levels?	3.6, 3.8
b. How are leadership qualities understood among women and men?	3.7
c. How are women and men who embody leadership qualities regarded on individual, family, FPO, and community levels?	3.7

[1]Some research questions are addressed by non-consecutive results sections, due to the interconnected nature of the research questions.

3.1 Benefits to engaging with FPOs

Why join an FPO?

Women and men join and remain members of FPOs for a handful of reasons, mainly, to increase their incomes or because their spouse encouraged them to join. Twenty-four respondents (12 women, two

IDIs with leaders, eight IDIs with members, two from two FGDs; 12 men, four IDIs with leaders, three IDIs with members, five in three FGDs) shared their motivation to join was economic—to increase their incomes and/or enhance their livelihood opportunities. Further, two women (one in an IDI and one in an FGD) joined their FPOs because their husbands—who were already FPO members—would not share the income generated from selling their crops through the FPO with them. As one woman explained, "My husband first joined the association. I realized that he earned well for his harvest. I supported him in the whole process from planting to harvesting but he did not share the profits with me" (woman, member, IDI).

Encouragement from husbands also led some women (four, three IDIs with members, one in an FGD) to join FPOs. As one woman explained, "Through this organization, we want to participate and have more companions. And, also, because of our husbands who started here—they encouraged us to be part of the association" (woman, member, FGD). It is possible that women may not feel comfortable joining an FPO independently of their husbands given that men are perceived as the primary breadwinners and decision-makers in their households (section 3.6), that most FPOs are dominated by men, and/or that men are often the principal landholders.

Benefits of FPO engagement

Women and men FPO members and leaders noted multiple ways in which participating in an FPO benefits them and their fellow members. They described enhanced confidence, knowledge of agricultural production, incomes, access to agricultural inputs, access to credit, and market access (*Table 7*).[5]

Table 7. Perceived benefits of FPO membership by gender

Benefit	Women	Men	Total
Enhanced confidence	16	7	23
Enhanced knowledge of agricultural production	13	9	22
Enhanced income	7	10	17
Enhanced access to agricultural inputs	4	7	11
Enhanced access to credit	2	3	5

[5] While the SMA program did not provide credit to FPOs and/or FPO members, some respondents reported that FPO participation alone increased their access to credit. However, FPO members may receive credit in the form of specific agricultural inputs from their FPOs.

Enhanced market access	2	2	4

Note: Numbers reported are counts of individual respondents in both IDIs and FGDs. Counts come from open-ended questions that were asked in 14 IDIs with women, FGDs with 15 women, 13 IDIs with men, and FGDs with 13 men.

We elaborate on the three most frequently mentioned benefits of FPO membership in more detail. The most frequently cited benefit, particularly for women, was enhanced confidence; as mentioned by 23 respondents (16 women, one IDI with leaders, eight IDIs with members, seven from two FGDs; seven men, four IDIs with members, three from two FGDs). Within the category of enhanced confidence, respondents reported increased self-confidence in their agricultural production abilities (five women; five men); their ability to make sound decisions (five women; one man); and, in the case of one woman, her "preparation as a leader" (member, FGD).[6] Regarding decision making, one shared that, "When my husband goes out in an emergency, I have the confidence to make decisions about anything… I no longer wait for my husband to decide. Doing the things I see is good for me" (woman, member, FGD).[7]

The second-most frequently cited benefit of FPO engagement, particularly among women, was increased knowledge of agricultural production, as gained from agronomy trainings provided by SMA and others. Twenty-two respondents (13 women, three IDIs with leaders, seven IDIs with members, three from two FGDs; nine men, two IDIs with leaders, four IDIs with members, three from two FGDs) mentioned this benefit. In some instances, respondents directly linked enhanced knowledge of agricultural production to other outcomes, such as increased income or increased self-confidence. Respectively, a woman member explained, "There are things we didn't know about how to take care of the avocado trees and how to harvest. [The training] helps us, because later we will have a better income for our family" (member, IDI).

Enhanced income was another principal benefit noted by respondents, as indicated by seventeen respondents (seven women, five IDIs with members, two from one FGD; ten men, four IDIs with leaders,

[6] Spanish translation: "preparación como lideresa"

[7] Spanish translation: "Cuando mi esposo sale de emergencia, tengo la seguridad en tomar decisiones en cualquier cosa…ya no espero a mi esposo que decida, hacer las cosas que veo me favorece."

two IDIs with members, four from two FGDs). As one woman said, "The planting of my crops has generated a profit for me and helps us to buy medicine for the children and contribute to the daily food expenses" (member, FGD). Additionally, the increased income earned through FPO membership may have specifically improved women's control over income. As one woman shared, "Since we joined with my husband in the association it changed my life as a wife…As an associate I now manage my own harvest, and my earnings are mine, and I no longer depend on my husband" (member, IDI).

3.2 FPO leadership and decision-making

In this section, we discuss how FPO leaders enter leadership positions, their perceptions of their principal responsibilities, and the drawbacks to being an FPO leader. We also discuss FPO decision-making dynamics, which is led by formal leaders though the process engages the broader FPO membership.

Becoming an FPO leader

Respondents explained that personal motivation is a key factor in becoming a leader (four respondents; two of whom were from the nine leaders sampled, two were from two FGDs of 5 women and 4 men).[8] Some leaders (four respondents; all of whom were leaders) note that explicit support from others helped them become formal FPO leaders, and that specialized leadership trainings helped them prepare for their roles (three respondents; all of whom were leaders).

Four respondents (one woman, one FGD; three men, two IDIs with leaders, one FGD) noted the importance of personal motivation to become a leader. As one woman noted, part of becoming a leader is "having the initiative to participate in the cooperative" (member, FGD).[9] Four leaders (two of three women leaders sampled; two men of six men leaders sampled) noted that support from others also plays a

[8] While most comments about FPO leadership come from individuals who were FPO leaders at the time of data collection, FPO members were asked about their perceptions of FPO leadership and leadership qualities (in IDIs and FGDs). As such, comments from FPO members about leadership are included as appropriate.

[9] Spanish translation: "Teniendo la iniciativa de participar en la cooperativa."

role. As a woman leader said of her experience, “The president of the association encouraged me to participate, and one of the members also encouraged me to become a leader” (IDI).[10] Additionally, three leaders (one woman; two men) shared that leadership trainings also helped them become leaders; as the woman among these three leaders explained, “There are organizations that give leadership training, and it is very interesting that a person can lead the association and thus go among all to move the association forward” (IDI).[11]

Principal FPO leadership responsibilities

Of the nine FPO leaders (three women; six men) interviewed, they perceive their principal responsibilities to be supporting agricultural production among members, participating in trainings held through the FPO, making decisions on behalf of the FPO, providing emotional support to members, and supporting women FPO members (*Table 8)*.

Table 8. FPO leaders' perceptions of their principal responsibilities by gender

Principal responsibility	Women leaders	Men leaders	Total
Supporting agricultural production	0	5	5
Participate in trainings	2	3	5
Make decisions on behalf of FPO	1	3	4
Provide emotional support to members	0	3	3
Supporting women FPO members	2	1	3

Note: Numbers reported are counts of IDIs with FPO leaders only. We collected data from 3 women leaders and 6 men leaders.

Among the five men FPO leaders who mentioned supporting agricultural production as one of their key responsibilities, three (two from the same FPO) said they visit FPO members’ plots to work alongside them. As one explained, “I support the members with the planting. That way we are in good standing with the members and with the association” (man, leader, IDI). Additionally, two of these leaders stated they coordinate the agricultural inputs members need as FPO leaders.

[10] Spanish translation: “El presidente de la asociación me animó para participar y uno de los socios también me animó de participar para ser un líder.”

[11] Spanish translation: “Más como hay organizaciones que imparten capacitaciones sobre el liderazgo y es muy interesante que una persona pueda liderarse en la asociación y así ir entre todos para poder sacar adelante a la asociación.” From the context of the interview, they are not discussing the SMA leadership trainings. The SMA leadership trainings, however, could potentially serve the same function.

Among the four FPO leaders (one women and three men) who shared that their responsibility as a leader is to participate in trainings offered through their FPOs, two (one woman and one man) said that participating in all FPO activities (i.e., trainings, assemblies) is part of their role. Among the three men and one woman who mentioned sharing their opinions and making decisions (jointly, with other leaders and/or members), the woman explained, part of her responsibilities as an FPO leader is to "participate in giving opinions on how we are going to do things [as an FPO]" (leader, IDI).[12]

Among the three men who mentioned providing emotional support to members, they described encouraging and motivating FPO members to ensure they continue producing high-quality crops to sell through the FPO. As one explained, they support members, "So that they feel the motivation to continue with the project and so that we can help them with the planting of peas so that they don't get discouraged and fall behind" (man, leader, IDI).[13] Two others, both men, also voiced that their role is to support their FPO and its members but did not specify how.

Among the three leaders (two women and one man from three different FPOs) who highlighted the importance of supporting women as FPO leaders, one woman explained that one of her principal responsibilities as a leader is to "help people to understand the subject of discrimination. This is important because women are still discriminated against here, so that they can understand the subject well and have more knowledge" (leader, IDI).[14] The idea of supporting women emerged in both FPOs that had and had not received the gender training by the time of data collection.

Drawbacks to being an FPO leader

The nine FPO leaders interviewed noted a few drawbacks to their roles: the time burden of serving as a leader, the pressure to perform as a leader, and the challenge of managing FPO resources. Five FPO leaders (two women, three men) shared that leadership roles are time consuming, leading them to

[12] Spanish translation: "Participación de estar participando de estar dando opiniones sobre cómo vamos a hacer las cosas."

[13] Spanish translation: "Para que ellos sientan esa motivación de seguir adelante con el proyecto y así poder ayudarlos con la siembra de arveja para que no se desanimen y se queden atrás."

[14] Spanish translation: "Ayudar a la gente a explicar sobre el tema de la discriminación esto es importante porque acá todavía se discrimina a la mujer para que ellos puedan entender bien el tema."

spend less time with their families. Time commitments may especially overburden women due to their unpaid care responsibilities, and women in leadership may be perceived as neglectful of these domestic and reproductive duties.[15] As one woman shared, "When I get to my mother-in-law's house, she doesn't talk to me anymore. My husband gets angry with me when I come back… Leaving home [to work for the FPO] is a long time away from home for the family" (leader, IDI).[16]

Five men leaders, but no women, shared that the pressure of their leadership roles is a source of stress. As one of them explained, "When we decide well, there is no problem. But what happens is that sometimes we make mistakes and we think that the decisions we make are not right. We distrust our decisions."[17]

Three men leaders shared that managing FPO resource can be challenging (no women shared these perceptions). Two specifically mentioned navigating the finances of an FPO, saying, respectively, "The inputs, the fertilizer, the organic fertilizer, the applications that are given to the crop are very high prices, we cannot buy everything we need for the investment" (man, leader, IDI), and "[FPO members] are aware of their dues… Sometimes they get the money and sometimes they do not, and this causes some problems as the cooperative has its needs" (man, leader, IDI). The third man simply mentioned that the mismanagement of resources is a challenge he faces as an FPO leader, though he did not elaborate on why.

Decision-making in the FPOs

In this section we discuss the most frequently mentioned topics FPOs take decisions about and the processes through which these decisions are made. The results for this section come from six FGDs

[15] Two of the three women leaders included in the study have children. One of them has a child young enough that she cannot leave them at home while she attends FPO meetings and/or activities; we did not specifically collect information the ages of respondents' children.

[16] Spanish translation: "Cuando llego a la casa de mi suegra ya no me habla, mi esposo se enoja conmigo cuando regreso. La salida de la casa es mucho tiempo de ausencia para la familia."

[17] Spanish translation: "cuando decidimos bien, no hay problema, pero lo que pasa es que a veces nos equivocamos y pensamos que no está bien las decisiones que tomamos. Desconfiamos de nuestras decisiones."

(28 FPO members total), 18 IDIs with members, and nine IDIs with leaders. FPOs generally make decisions about: agriculture (i.e., production, purchase and/or use of inputs, product quality), FPO activities, FPO finances, and gender equality within the FPO.

Regarding agriculture, 11 respondents (six women, one IDI with leaders, five IDIs with members; five men, four IDIs with leaders, one IDI with members) mentioned that FPOs make decisions around agricultural production. The next most common topic was FPO activities, including the trainings FPOs participate in, which five respondents mentioned (three women, two IDIs with leaders, one IDI with members; two men, one IDI with leaders and one IDI with members). The third most common topic was FPO finances (e.g., finances generally; taking a loan on behalf of the FPO; offering credit to FPO members), which four respondents indicated (four men, three IDIs with leaders, one IDI with members).

Decisions on gender were mentioned to a lesser extent, by only three respondents (two women, one IDI with leaders, one IDI with members; one man, one IDI with leaders). As one woman said, "Sometimes they talk about the empowerment of women" (leader, IDI).[18] Another leader, a man, shared, "They talk about discrimination; they talk about everyone being equal" (IDI).[19] Additionally, a woman stated, "In the last meeting we decided among all of us…the right of women to be equal in the association" (member, IDI).[20] Despite these significant steps, in many other ways gender roles remain unchallenged, particularly as they pertain to the activities typically led by women in domestic settings and how they translate into FPO life. In an FPO setting, these domestic responsibilities include cooking and caretaking for FPO visitors. One woman shared that, "The woman's opinion is always needed when planning an activity related to cooking, such as giving lunch to visitors" (member, IDI).

The degree to which FPO leaders and members participate in decision making varies across decisions. Respondents described two common approaches: taking decisions as a group and the FPO board

[18] Spanish translation: "A veces te hablan sobre el empoderamiento de las mujeres."

[19] Spanish translation: "Hablan de las discriminaciones, hablan de que todos son iguales."

[20] Spanish translation: "En la última reunión decidimos entre de todos…el derecho de las mujeres en la asociación es igual."

taking decisions and communicating them to the members. Seventeen respondents (six women, five from IDIs with members, one in an FGD; 11 men, four from IDIs with leaders, six in IDIs with members, one in an FGD) explained their FPOs may take decision as a group. As a woman shared, "We have to talk with our colleagues about what we are going to do, listen to what the other associates tell us. If we say one thing and they do not like it, we have to have a discussion, we talk and we reach an agreement" (member, IDI). As for the approach in which the board makes and communicates decisions, four respondents (three women, one IDI with FPO leaders, two IDIs with members; one man, one IDI with leaders) stated that board members may take decisions on behalf of their FPOs. One woman indicated deference to her FPO's board, saying "It is really the board of directors [who makes decisions], and we must do what they tell us to do, because we know they make the best decisions" (member, IDI). It is unclear how FPOs and their members choose which approach to use for a given decision, and all FPOs use a combination of both approaches in their operations.

Disagreements also arise when FPOs make decisions. Two men leaders from different FPOs, noted that these disagreements may be stressful. As one explained, "Sometimes we get tired, or our colleagues get upset or angry…There are different points of view on the same subject. This sometimes makes it difficult for everyone to understand the decisions that are made in the end" (man, leader, IDI).[21] While disagreements may occur in any organization, they may specifically limit women's contributions, given that women are expected to be deferential to men (section 3.6).

Despite indications that all members may participate in FPO decisions, in later sections we present additional findings that reveal more subtleties suggesting that women's input into these decisions may be constrained relative to men's. As we later detail, women experience constraints to FPO participation (section 3.3), these constraints make it difficult to participate in FPO assemblies where key decisions are made; moreover, gender norms often favor men's control over decisions (section 3.6).

[21] Spanish translation: "En ocasiones uno se cansa o los compañeros se molestan, se enojan, ya que son varias las cosas que se ven dentro de la asociación no es sólo una. En ocasiones se molestan por algún documento o cualquier movimiento que se haya hecho por no llegar a un fin que nos favorezca."

3.3 Constraints to engaging with FPOs

FPO leaders and members face challenges to FPO participation, as explained by FPO leaders, members, and SMA staff in both IDIs and FGDs (63 people total). These constraints include the time burden of FPO participation, especially for women, the unpredictability of agricultural livelihoods, women's need for their husband's approval to participate, absenteeism of other members, inadequate access to inputs, and relatively lower literacy levels (*Table 9)*. We describe the top three constraints in more detail in the subsections below.

Table 9. Constraints to FPO participation by gender

Constraint to FPO engagement	Women	Men	Total
Time burden of FPO participation	6	6[1]	12
Unpredictability of agricultural livelihoods	4	7	11
Women need their husband's approval	2	5[2]	7
Absenteeism of other members	5	2	7
Inadequate access to inputs	3	0	3
Low literacy	3	0	3

[1]Three of these men identified the time burden of FPO participation is a constraint for women.
[2]All five of these men were SMA staff members saying women need spousal approval to participate.
Note: Numbers reported are counts of individual respondents in both IDIs and FGDs with FPO members, leaders, and SMA staff. Counts come from open-ended questions that were asked in 14 IDIs with women, FGDs with 15 women, 21 IDIs with men, and FGDs with 13 men.

As for the remaining three constraints, absenteeism of fellow FPO members was identified as a constraint by seven respondents (five women, one IDI with leaders, three IDIs with members, one in an FGD; two men, one IDI with leaders, one IDI with members), as they perceive that interdependence and mutual participation are keys to a successful FPO. Despite 11 respondents sharing that a benefit of FPO participation was enhanced access to inputs (section 3.1), three women (two IDIs with members, one in an FGD) shared that the high cost of agricultural inputs were a challenge to agricultural production and therefore FPO participation. This contrast may stem from economic diversity across FPO members, and that women overall have lesser access to resources relative to men. Finally, three women (two IDIs with FPO members, one in an FGD) mentioned that their lower literacy skills were a constraint to participating more fully in their FPO.

Time burden of FPO participation

Participating in an FPO and balancing one's other obligations may be challenging, particularly for women. Twelve respondents (six women, one IDI with leaders, four IDIs with members, one in an FGD; six men, two IDIs with leaders, one IDI with members, three men from three FGDs) noted that the demand of unpaid care makes FPO engagement challenging. Four women and three men mentioned child-care responsibilities, specifically, as unpaid care. Four women and three men mentioned household chores more generally as unpaid care.

All six women who mentioned time burdens as a constraint women face noted that their domestic responsibilities limited their FPO participation, and three of the men (from two different FGDs) mentioned these unpaid care responsibilities constrain women. Two other men (one IDI with members, one from an FGD) noted that they are constrained by unpaid care responsibilities. As one woman explained, "For me, the main obstacle [to FPO participation] is that I am married, and I can't leave the house because I have to take care of my children, but being there you learn a lot of things" (member, IDI).[22]

Unpredictability of agricultural livelihoods

Eleven respondents (four women, one IDI with leaders, two IDIs with members, one in an FGD; seven men, four IDIs with members, three men from two FGDs) shared that the unpredictability of crop yields make it difficult to participate in FPOs as they cannot be certain how much they will produce or the quality of their crop. As a man explained, "What most of our associates face are crop losses due to the weather, sometimes it rains too much, or we get frost and that causes us to lose our harvest…We can no longer fulfill our responsibility to the association" (member, FGD).[23]

[22] Spanish translation: "Para mí, pues el principal obstáculo es que estoy casada y no puedo salir de la casa por cuidar a mis hijos pero al estar allí se aprenden muchas cosas."

[23] Spanish translation: "Lo que afrontamos la mayoría de asociados son las pérdidas de cosechas por el clima, a veces llueve demasiado o caen heladas y eso provoca que perdamos nuestra cosecha, perdemos nuestra inversión y nuestro trabajo. Ya no podemos cumplir con nuestra responsabilidad con la asociación."

Women need their husband's approval

Seven respondents (two women, one IDI with leaders, one in an FGD; five men, five IDIs with SMA staff members) stated that some women may not be allowed to participate in an FPO without support from their spouses. As one woman explained, "If there is an association that wants to come to give talks or training here in the community, it is difficult for women to participate, because they have their children, and men do not let them" (leader, IDI).[24] Likewise, an SMA staff member shared, "Sometimes their husbands do not give them permission…Because most of the women who can and want to participate have husbands and children, it would be good to talk to the men so that they let them participate."[25]

3.4 Benefits to participating in SMA

Overall, SMA staff members' vision for how the program may benefit participants largely aligns with FPO members' and leaders' perceived benefits of the program. A wide range of respondents (i.e., members, leaders, and SMA staff; 63 people total across all IDIs and FGDs) described multiple benefits to participating in SMA, whether on individual, household, or FPO levels (*Table 10*).[26] Individual-level benefits include enhanced knowledge of agriculture, better economic outcomes, increased confidence in decision-making, increased self-confidence (particularly among women) and, to a lesser extent, improved knowledge of safety practices (i.e., managing harmful chemicals; five respondents). FPO leaders and members indicated benefits at the household level that included knowledge sharing among household

[24] Spanish translation: "El problema si hay una asociación que quiere venir a dar charlas o capacitación aquí en la comunidad, las mujeres no llegan a participar. Cuesta que se puedan juntar porque tienen a sus hijos y también los hombres no las dejan."

[25] Spanish translation: "Hay veces que los esposos no les dan permiso y por los hijos porque tienen que atenderlos y cuidarlos… Porque la mayoría de las mujeres que pueden y quieren participar tienen esposo e hijos, sería bueno platicar con los hombres para que las dejen participar."

[26] Individual-level benefits are those that individual people may enjoy, though not necessarily exclusively (e.g., increased income). Household-level benefits are those that may be enjoyed by those who live, and in some cases, work, together; those benefitting at the household level do not necessarily have to be FPO members or leaders, or SMA participants themselves. FPO-level benefits are those that either broadly benefit women FPO members or those that enhance the economic opportunities FPO members have, regardless of gender.

members and improved intrahousehold communication. Members enjoy from FPO-level benefits of increased awareness of women's rights and/or abilities, smoother FPO operations, and enhanced market access.

Table 10. Perceived individual, household, and FPO-level benefits of SMA participation by gender

Benefits of SMA	Women	Men	Total
Individual-level benefits			
More agricultural knowledge	15	20[1]	35
Improved economic outcomes	5	13[2]	18
Increased confidence in decision-making	14	4	18
Increased self-confidence	9	4	13
More knowledge of safety practices	2	3[3]	5
Household-level benefits			
Knowledge sharing	2	1	3
Improved intrahousehold communication	1	1	2
FPO-level benefits			
Greater awareness of women's rights and/or abilities	6	6[4]	12
Smoother FPO operations	0	5	5
Increased market access	0	5	5[5]

[1]Seven of these men are SMA staff.
[2]Four of these men are SMA staff.
[3]One of these men is an SMA staff member.
[4]Two of these men are SMA staff members.
[5]One of these men is SMA staff.
Note: Numbers reported are counts of individual respondents in both IDIs and FGDs with FPO members, leaders, and SMA staff. Counts come from open-ended questions that were asked in 14 IDIs with women, FGDs with 15 women, 21 IDIs with men, and FGD with 13 men.

Individual-level benefits of SMA

SMA participants, whether leaders or members (55 people total; from 14 IDIs with women, FGDs with 15 women, 13 IDIs with men, and FGDs with 13 men) perceive individual-level benefits to be enhanced knowledge of agricultural production (35 respondents), better economic outcomes (18 respondents) and increased confidence in decision-making (18 respondents). Increased self-confidence (14 respondents), particularly among women, and, to a lesser extent, improved knowledge of safety practices (i.e., managing harmful chemicals; five respondents) are also individual-level benefits.

Increased knowledge of agricultural production techniques is by far the most frequently mentioned benefit of SMA participation; thirty-five respondents mentioned it as a benefit (15 women, two IDIs with leaders, 11 IDIs with members, two women from two FGDs; 20 men, four IDIs with leaders, six IDIs with members, seven IDIs with SMA staff, three men from two FGDs). As a woman said of SMA, learning "about pests—I liked it a lot because it affects quite a lot the crops here…For example, the

red spider mite that sticks a lot to the crops, I have put into practice crushing garlic, placed in a container close to it" (leader, IDI). The high frequency of those mentioning agricultural knowledge suggests that the program is delivering this benefit.

Eighteen respondents (five women, one IDI with leaders, three IDIs with members, one in an FGD; 13 men, three IDIs with leaders, six IDIs with members, four IDIs with SMA staff) commented on the improved economic outcomes that SMA participation offered. These benefits include increased profit (two women, two IDIs with members; six men, one IDI with leaders, five IDIs with members), improved ability to save money (one woman, one IDI with members; two men, one IDI with leaders, one IDI with members), strengthened budgeting knowledge (one woman, one IDI with leaders), and improved entrepreneurial skills (one woman, one FGD; *Table 11*).

Table 11. Improved economic outcomes of SMA participation by gender

Improved economic outcomes	Women	Men	Total
Increased profit	2	6	8
Improved ability to save money	1	2	3
Strengthened budgeting knowledge	1	0	1
Greater entrepreneurial skills	1	0	1

Note: Numbers reported are counts of individual respondents in both IDIs and FGDs with FPO members, and leaders. Counts come from open-ended question that were asked in 14 IDIs with women, FGDs with 15 women, 13 IDIs with men, and FGDs with 13 men.

Regarding increased profits one man said, "[SMA] teaches each producer how to have good quality products, and thus obtain a better result with respect to the price in order to have a better income" (member, IDI). As for entrepreneurial skills, one woman explained, "Some of the producers have already set up a small business in the community," as a result of SMA (member, FGD). Notably, few women commented on the individual-level economic benefits of SMA participation, which may be due to expectations that men are the primary income earners (section 3.6).

Increased confidence in decision making was a benefit of participating in SMA, though it took a few different forms: increased confidence in taking decisions independently (ten respondents) or in-

creased confidence in participating in joint decisions (eight respondents). Regardless of the type of confidence in decision-making (i.e., independent or joint), respondents identifying increased confidence in decision-making as a benefit come from all three FPOs, suggesting that even partial implementation of SMA's gender components—women's leadership or EFF trainings—bolsters women's confidence in decision-making. Ten women (five IDIs with members, five in one FGD) perceived that they had a greater ability to take more decisions independently as a result of SMA. As one of the women explained, "The change that I have learned is to make my decisions on my own, to buy things that I can use in my home" (member, IDI).[27] Five women from one FGD who had participated in the women's leadership component of SMA shared that this training, specifically, gave them greater confidence to make their own decisions; as one of the women said, "They taught us that we can make our own decisions, since most of them were discriminated against before and were always afraid. Now that they have given us training, we are confident that we can give our opinion and make our own decisions" (member, FGD).[28] Both women and men (four women, four IDIs with members; four men, four IDIs with members) reported increased confidence in making joint decisions with their spouse as a result of SMA. SMA may help normalize women's participation in household decision-making, despite norms to the contrary (section 3.6), given that some men who participated in SMA reflected on joint decision-making positively. As one man said, "Almost all the members of my family are in the organization, and we work together and we all give our opinion and make the necessary decisions" (member, IDI).[29]

Sometimes women's participation in household decisions depends on whether her husband is present or whether he is willing to consider her opinion and compromise. For instance, as one man explained, "[SMA] has helped me to understand that in my home…if there is an immediate decision that needs to be

[27] Spanish translation: "El cambio que yo he aprendido es tomar mis decisiones en mí misma, en comprar unas cosas que me puede servir en mi hogar."

[28] Spanish translation: "Lo que nos enseñaron es que nosotros podemos tomar nuestras decisiones ya que la mayoría de antes las eran discriminadas y tenían siempre miedo, ahora que ya nos dieron capacitaciones nosotras ya tenemos confianza de que si nosotras podemos opinar y decidir."

[29] Spanish translation: "casi todos los miembros de mi familia están dentro de la organización y trabajamos juntos y todos opinamos y tomamos las decisiones necesarias."

made while I am not there, they [his family members] have the authorization to make it on their own" (member, IDI).[30] Additionally, a woman remarked that though she shares what she has learned from SMA trainings with her husband to aid decision-making, he does not always consider her input. As she shared, "In my case, I give advice to my husband according to what we have been taught in the training, although sometimes he does not listen to me. I can't interfere too much" (member, IDI).[31] These two examples demonstrate how changes in household decision-making dynamics may still be limited, despite SMA's focus on this area, or be a reflection of partial implementation of SMA's EFF trainings at the time of data collection.

Thirteen respondents, primarily women, (nine women, one IDI with leaders, seven IDIs with members, one in an FGD; four men, one IDI with leaders, three IDIs with members) cited increased self-confidence as a result of SMA. As one woman said, "With the training I received…I no longer hesitate in what I do. That is the confidence I have" (member, IDI).[32] Interestingly, none of the women in the sample had received the complete package of the women's leadership and EFF trainings by the time of data collection, but they had received full access to the agriculture and business trainings, which seems to have boosted their self-confidence.[33] As with confidence in decision-making, even a partial implementation of SMA has perceived benefits for women beneficiaries.

Finally, five respondents (two women, two IDIs with members; three men, two from IDIs with members, one IDI with SMA staff) remarked that learning how to protect themselves from harmful agricultural contaminates was a benefit of SMA. As one man said, "In the trainings, they tell us not to use

[30] Spanish translation: "me ha ayudado a entender que en mi hogar…si hay una decisión inmediata que hay que tomar mientras no esté, pues ellos tienen la autorización de tomarlos ellos solos."

[31] Spanish translation: "En mi caso le doy consejos a mi esposo de acuerdo a lo que nos han enseñado en la capacitación, aunque él a veces no me hace caso pero tampoco me puedo meter mucho."

[32] Spanish translation: "Con las capacitaciones recibidas…ya no dudo en lo que hago. Esa es la confianza que tengo."

[33] Two of the women reporting increased self-confidence as a benefit of SMA had not received the women's leadership component of SMA by the time of data. The other eight women had not received the EFF gender training by the time of data collection.

toxic products. And they also told us that we have to use protective equipment, so not to contaminate ourselves" (member, IDI).

Household-level benefits of SMA

SMA benefits at the household level include knowledge sharing among household members and enhanced intrahousehold communication, as indicated by three FPO members (two women, one IDI with leaders, one IDI with members; one man, one IDI with members). "When I leave the training sessions, I tell my family what I have learned… On two or three occasions, we have taken the initiative to start applying what I have learned, and that maintains a very good relationship with the family" (member, IDI), a man explained.[34] Two FPO members (one woman from an IDI; one man from an IDI) said that their intrahousehold communication had improved as a result of SMA. As the man said, "Well, in my family I do things better with my wife. We talk to each other more, that's good" (member, IDI).[35] All three of the FPO members who noted improved intrahousehold communication as a benefit of SMA had received the EFF training, which included content exploring communication dynamics between women and men to promote joint decision-making within households.

FPO benefits of SMA

FPO-level benefits of SMA include a greater awareness of women's rights and/or abilities, smoother FPO operations, and enhanced market access. Twelve respondents (six women, one IDI with leaders, five IDIs with members; six men, three IDIs with leaders, one IDI with members, two IDIs with SMA staff) from all three FPOs sampled reported that SMA had increased awareness of women's rights and/or abilities, though they did not always specify among whom this awareness had increased.[36] As one woman leader said of women's rights, "Not only men have the right to become a leader in the association,

[34] Spanish translation: "saliendo de las capacitaciones, yo le comento a mi familia lo que vengo a aprender…En dos o en tres ocasiones, hemos tomado esa iniciativa de empezar a aplicar lo que he aprendido y pues eso sostiene una relación muy buena con la familia."

[35] Spanish translation: "Pues, en mi familia ya hago mejor las cosas con mi esposa. Nos hablamos más, eso es bueno."

[36] Since the SMA program was delivered to FPOs, we assume most of the increased awareness is among FPO members and leaders. As such, this benefit has been categorized as an FPO-level benefit.

all people, men or women, have rights" (leader, IDI).[37] Men's and the SMA staff member's comments reveal that they perceive women's increased participation in their organizations or SMA as a positive development. As a man said, "The integration of women in all the association's activities is one of the benefits we receive" (member, IDI).[38] However, despite such indications, some women reported experiencing backlash. One of the women who noted SMA increases awareness of women's rights also shared that, "Some people tell me to stop, because it is not right what I am doing, but I myself think that it is the best thing I am doing, to see good results someday" (member, IDI). Considering none of the FPOs had received the full women's leadership and EFF trainings by the time of data collection, that respondents identifying greater awareness of women's rights and/or abilities as a benefit of SMA shows that even partial implementation of the program may create environments more supportive of women FPO members.

Another FPO-level benefit is improved FPO functioning; five men (three IDIs with FPO leaders, one IDI with members, one in an FGD) shared this perception. As one of the men leaders explained, "It benefits me in the sense of the knowledge acquired of how to organize a meeting or approach with the managers and also with the association" (IDI).

Five men (one IDI with leaders, three IDIs with members, one IDI with SMA staff) said FPOs enjoy increased market access as a result of SMA. As a man leader said, "[TechnoServe] helps us and supports us to look for other markets in other places…Before TechnoServe arrived, there was no way to have that approach or contact with those companies that help export our products" (IDI). An SMA staff member confirmed that the project's aim of enhanced access to markets is well realized, but could go farther; as he said, "The Walmart Project gets good markets. But, there is a lot of production—we need more markets" (man, IDI).[39]

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[37] Spanish translation: "No solo los hombres tienen derecho de ser un líder en la asociación. Todas las personas, hombres o mujeres, tienen derechos."

[38] Spanish translation: "La integración de la mujer en todas las cuestiones que la asociación realice son algunos de los beneficios que recibimos."

[39] "The Walmart Project" is how SMA is referred to colloquially among program beneficiaries and SMA staff. The project is funded by Walmart Foundation through a grant to TechnoServe.

3.5 Shortcomings of SMA, constraints to SMA participation, and proposed solutions

Respondents of all types (i.e., members, leaders, and SMA staff; 63 people total across all IDIs and FGDs) identified constraints limiting SMA's effectiveness that we grouped into three categories: shortcomings of the program itself, constraints to SMA participation among FPO members, and constraints to implementing the lessons learned in SMA (*Table 12)*. Some respondents also proposed specific solutions to the constraints they observed, and we extrapolate on the findings and draw on lessons from similar programs to suggest additional recommendations to strengthen SMA or offer general advice to similar programs (*Table 12)*. Limitations of SMA include limited training delivery in indigenous languages, too few women staff members, and a lack of security for SMA staff members.[40] Constraints to SMA participation include time-consuming attendance, lack of childcare, and lack of transportation. Constraints to implementing lessons learned from SMA include the high cost of inputs and understanding/remembering the training content.

[40] For most of the SMA project, there were two women staff members, a gender advisor and business advisor. The gender advisor resigned from her position prior to data collection, and the business advisor was on maternity leave around the time of data collection. Both these staff members worked directly with the FPO leaders, and FPO members included in this study prior to data collection.

Table 12. Constraints to SMA's effectiveness by gender and recommendations to strengthen group-based programs

	Women	Men	Total	Recommendations
SMA limitation				
Spanish-language training delivery	4	8[1]	12	More preparation on how to communicate/explain complicated topics[6]
Few women SMA staff members	0	3[2]	3	Hire more women to implement the gender and women's leadership components of SMA
Security concerns	0	2[3]	2	Hire a security escort for SMA staff
Constraints to SMA participation				
Attendance is time consuming	5	6	11	Engage spouses (men)
Lack of childcare	6	5	11	Provide childcare at training location[6]
Lack of transportation	5	4	9	Subsidize bus fare, small stipend, coordinate rides among members and leaders, offer trainings in multiple locations
Men's permission needed	0	4	4	Engage spouses and men FPO members
Constraints to applying SMA				
Understanding/remembering trainings	8	4[4]	12	Repeat trainings, more interactive trainings (e.g., games), provide manuals and visual aids, hiring staff with adult-education expertise[6]
Inputs are too expensive	5	7[5]	12	Linking FPOs to agri-dealers with competitive pricing, helping FPOs buy inputs in bulk at lower prices, small subsidies to FPOs and/or producers

[1]One of these men is an SMA staff members.
[2]All three of these men are SMA staff members.
[3]Both of these men are SMA staff members.
[4]Three of these men are an SMA staff member.
[5]Two of these men are SMA staff members.
[6]SMA program designed had already accounted for these strategies prior to data collection; however, implementation of the program was inconsistent across program areas which may have influenced respondents' perceptions of the associated constraints. These strategies already enacted by SMA are nonetheless included in *Table 12,* as they may be applicable to other programs that have similar approaches and goals as SMA.
Note: Numbers reported are counts of individual respondents in both IDIs and FGDs. Counts come from open-ended questions that were asked in 14 IDIs with women, FGDs with 15 women, 21 IDIs with men, and FGDs with 13 men.

SMA limitations

A high share of the population in the SMA program area communicates primarily in an indigenous language. As a result, not all participants were able to fully understand the trainings when they were delivered in Spanish. This experience was mentioned by 12 respondents (four women, one IDI with leaders, three IDIs with members; eight men, three IDIs with leaders, four IDIs with members, one IDI with SMA staff) from all three FPOs sampled. While FPO members and leaders may speak some Spanish, they do not understand enough to fully internalize the parts of the trainings that were delivered in Spanish. As an SMA staff member explained, "The language is also a challenge because they almost do not understand what is said in the trainings" (man, IDI). As a woman shared, "Sometimes technicians come and give trainings in Spanish, but we do not understand much, and sometimes we do not understand anything" (member, IDI). TechnoServe intended to deliver the program in the local languages and hired staff who could speak target indigenous languages across the program area accordingly. However, program delivery in the local languages may have been inconsistent across the program area, leading some respondents to cite translation issues as a limitation of the program.[41] Further, some concepts are difficult to translate into local languages, and these concepts may not have direct translations of key agronomy and/or gender vocabulary. To overcome this concern, SMA staff could spend more time anticipating which concepts may be most difficult to translate prior to implementing the trainings.

Three SMA staff members (of the eight total interviewed) mentioned that SMA not having any women staff members at the time of data collection was a limitation (one woman staff member who supported business advisory services was on maternity leave at the time of data collection). As one SMA staff member explained, "Many times even the husbands came to see who was [at the training] with them…It is different for a woman to come and give a training between sexes than for a man to come and talk to a woman" (man, IDI). Another staff member's straightforward explanation was that TechnoServe should hire someone "to support us in this who is specialized in women's empowerment issues…Those who teach the subjects are men, so there is not much participation of women" (man, IDI).[42] For most of SMA, the program had a dedicated gender specialist. This individual

[41] For instance, one SMA staff member delivered the women's leadership trainings in the local language, but to an FPO that was not included in our study.

[42] Spanish translation: "nos apoya en eso que sea especializada en los temas de empoderamientos con las mujeres… Porque los que imparten los temas son hombres por eso que no hay mucha participación de las mujeres."

resigned from their position before data collection, though the role has since been filled. Overall, hiring more women for future SMA programming to work alongside existing men could role model more equitable relationships between women and men, as well as show that gender equality is the responsibility of women and men.

Finally, two SMA staff members (two men, two IDIs with SMA staff) commented on the security situation in some SMA program areas. One SMA staff member said that as a preventive measure they have learned to not travel to a community alone. In his words, "We go down two or three at the same time…When they see that it is a small group, they don't dare to assault. But when one goes alone, something happens for sure" (man, IDI). The other SMA staff member said that they would appreciate it if TechnoServe would hire security to accompany them while on the job, to ensure their safety. As they explained, if TechnoServe "comes and tells us, 'Look we are going to put security to walk every day with you,' that would be a great investment" (man, IDI). If not feasible, ensuring that SMA staff are always scheduled to work in pairs or small groups could alleviate some of these security concerns.

Constraints to participating in SMA

FPO leaders and members (55 people total; 14 IDIs with women, FGDs with 15 women, 13 IDIs with men, and FGDs with 13 men) also identified constraints to participation: attendance is time consuming (11 respondents), childcare options during training are lacking (11 respondents), and few viable transportation options to/from the training location (nine respondents). Given that absenteeism of other members was a complaint among FPO members, as identified in section 3.3, addressing these constraints could strengthen FPO dynamics overall.

Eleven respondents (five women, one IDI with leaders, four IDIs with members; six men, three IDIs with leaders, two IDIs with members, one in an FGD) mentioned that attending SMA trainings can be time consuming. Three of the women (three IDIs with members) specifically mentioned how balancing their domestic responsibilities with SMA attendance is challenging. As one woman said, "We as women have a hard time, because we have many things to do, and sometimes only men are told. So, I don't think it's fair, though the truth is that we have a lot to do. Maybe that's why there are others who don't get to participate" (member, IDI). This woman's comments suggest that some women may be excluded from SMA because it is assumed women have too many competing priorities to attend, though it is unclear who (i.e., fellow FPO members, FPO leaders, or SMA staff) does not relay

information about upcoming trainings. As a whole, women's time is overburdened compared to men's, limiting their ability to participate in SMA (section 3.6).

Eleven respondents (six women, one IDI with leaders, five IDIs with members; five men, two IDIs with leaders, two IDIs with members, one IDI with SMA staff) said a lack of childcare is a constraint to SMA participation, particularly for women. In the absence of childcare, women typically bring their young children with them to the trainings. Six respondents (three women, one IDI with leaders, two IDIs with members; three men, one IDI with leaders, one IDI with members, one IDI with SMA staff) pointed out that because women must bring their children, people are unable to focus on the content of the SMA trainings. "Sometimes ladies arrive with children and when they cry it takes everyone's attention away" (IDI), a woman member explained. SMA provided childcare from May – December 2023, for the duration of the women's leadership trainings, though implementation was inconsistent across program areas. Uneven implementation of program activities may explain why those interviewed for this study noted a lack of childcare as a constraint to women's participation. Additionally, due to the timing of data collection, childcare may not have been implemented prior to some IDIs and FGDs.

Some respondents (one woman, one IDI with leaders; seven men, four IDIs with leaders, three IDIs with members) shared that a lack of childcare is not a constraint for them personally, though their comments point out how a lack of childcare is a gendered constraint to SMA participation. The woman leader said it was not a constraint for her, because her baby is still young enough that she just carries them on her back, and men said it was not a problem for them because it is their wives' responsibility to take care of their children. As one of the men leaders said, "In the end, it is the women who are in charge of [children] and many times it is up to us men to go out to these trainings, and we do it knowing that the sacrifice is for both of us" (IDI). In other words, he does not see gendered norms around childcare as a constraint for women's participation in SMA, but rather a balance in the sacrifices women and men make to support their families.

Inadequate transportation was identified as a challenge to attending SMA trainings by nine respondents (five women, two IDIs with leaders, three IDIs with members; four men, two IDIs with leaders, two IDIs with members). More specifically, seven (five women; two men) respondents lamented that they do not always have the money to pay for bus fares to/from the training locations. Transportation may be particularly expensive if a woman must bring her children to the training. "Especially when you have children or you have to pay for their

transportation…And because of the distance you have to go there with breakfast or you have to buy breakfast at the place where the training takes place," (member, IDI), one woman explained. To a lesser extent, bus availability (one woman, one IDI with FPO leaders; one man, one IDI with members) or transferring between routes (one man, one IDI with members) to get to a training location were identified as constraints.

Two women (one IDI with leaders, one IDI with members) from different FPOs shared that sometimes, SMA staff offer them a ride to the training location. Personalized pick-ups on an occasional basis are not a viable solution to SMA participants transportation constraints overall; however, subsidizing bus fares or providing a small travel stipend may facilitate women's and men's participation. In areas where FPO members have vehicles, SMA staff may consider assisting FPO members and leaders with coordinating and subsidizing rides to training sessions. SMA staff may also consider hosting training sessions in additional locations that are more accessible to participants, as discussed in greater detail below.

One SMA staff member (one man, one IDI with SMA staff) described a creative solution he employed—rather than host all FPO members at the same time in one place, he and his fellow staff divided an FPO into subgroups based on location and availability for training. He explained:

> "We called or tried to call everyone to the collection center, but there were some who did not arrive. So, we asked what the reason was, and many said that 'it is far away,' 'I have to pay to get there,' 'I have to walk half an hour to get there.'…We started making small groups…it worked well, and we called people together and they came to the training, and we also adapted to their schedules."

Similar to how women may need their husband's approval to participate in an FPO (section 3.3), they may need his approval to participate in SMA trainings. Four men (one IDI with members, three IDIs with SMA staff) shared this perception. As one man said, "Sometimes men do not let women participate [in trainings], so women do not lose their fear. They do not have the courage to support their community, or a change in their community, because they do not participate in other meetings," (member, IDI).[43] To address this limitation, three staff members (three men, three IDIs with SMA staff) suggested engaging husbands at the onset of the program to bolster women's participation. As one staff member said of his personal experience, "First I went to the main producer and told him, 'In the end, if the wife and daughter are trained and the quality of the peas they have is

[43] Spanish translation: "A veces los hombres no los dejan que la mujer participe, entonces ahí la mujer no pierde el miedo. No tiene un ánimo de querer apoyar a su comunidad, o un cambio de su comunidad, porque no participa en otras reuniones."

known, it benefits [him] because he delivers a good product.'…That was the strategy I used" (man, IDI). TechnoServe could train SMA staff on how to use this approach, formalizing the process for engaging spouses to generate buy-in among men FPO members.

Constraints to applying SMA training content

SMA participants (63 people total; 14 IDIs with women, FGDs 15 women, 21 IDIs with men, and FGDs with 13 men) noted two limitations to applying the content learned in trainings: understanding and remembering content was difficult and the necessary inputs were often too expensive. Twelve respondents total (eight women, one IDI with leaders, six IDIs with members, one in an FGD; four men, one IDI with members, three IDIs with SMA staff) said that understanding and/or remembering the SMA trainings was a challenge to implementing the lessons learned. Struggling to understand and remember trainings may be linked to respondents' concerns about parts of the training being delivered in Spanish.

Of the respondents who said that the training content was difficult to remember, most respondents did not specify which topics within the various components of SMA were difficult to remember. Two women (one IDI with members, one in an FGD) said that remembering information about agricultural production was challenging. Likewise, of the respondents who said comprehension was low, most did not specify which topics were difficult to understand in the training sessions. However, two women (one IDI with leaders, one IDI with members) shared that agricultural topics were difficult to understand, and one woman (one IDI with members) said the content of the women's leadership training was challenging for her. As a woman said of women's leadership trainings, "I find it difficult to understand the topics that have the most content—women's leadership. I need more explanations to be able to practice it" (member, IDI).[44] The three SMA staff members (three men, three IDIs) also shared that understanding the gender-sensitive components of SMA seems most challenging for program participants. As one staff member shared in his IDI:

> "These issues of leadership and gender equity are a little complicated to take to the communities…Perhaps because of the ideology of the people in the community. When this workshop was given, at the beginning they were a little shy, but later they loosen up and become more confident, unlike with the agricultural topics where they do participate."[45]

[44] Spanish translation: "Los temas que tiene más contenidos me cuesta entender—liderazgo, derecho de la mujer… Necesito más explicaciones para poder practicarlo."

[45] Spanish translation: "Estos temas de liderazgo, equidad de género, son un poquito complicados llevárselos a las comunidades…Tal vez por la misma ideología de las personas en la comunidad, últimamente, digamos cuando se dio este taller, al principio son un poquitos tímidas pero después ya se van soltando y agarran confianza, a diferencia con los temas agrícolas que ellas sí participan."

These comments about the women's leadership trainings suggest that SMA's effectiveness may benefit from further developing the leadership materials and spending more time explaining the salient topics to women FPO members. However, these comments were shared prior to the full implementation of the women's leadership trainings—it is possible that with more time and full implementation, SMA beneficiaries may become more comfortable with the leadership and gender equality topics.

Respondents suggested three potential solutions to make understanding and remembering SMA training information easier. The suggestions include providing manuals and visual aids to program beneficiaries (three respondents), repeating training content (two respondents), and taking interactive approaches to SMA delivery (one respondent). The first possible solution was identified by three respondents (one woman, one IDI with members; two men, one IDI with leaders, one IDI with SMA staff), who suggested providing manuals and visual aids to program beneficiaries. SMA used audio-visual materials to share training material in Mayan languages with beneficiaries, though respondents shared that they thought these materials could be expanded. As an SMA staff member suggested, "What is missing a little bit more is the material—in this case it would be the visual material. We are talking about the use of pamphlets and brochures, so that there is basic information for the producer so that he can replicate it" (man, IDI). Generating additional materials—particularly visual ones—may facilitate uptake of SMA trainings, as the target population has relatively low formal education levels. Providing materials program beneficiaries may take home with them could also help. SMA has a staff member with specific expertise related to adult education among low-literacy populations, who could support the development and refinement of additional SMA visual aids and training materials.

The second solution to respondents' challenges to understanding and/or remembering the training material comes from two SMA staff members (two men, two IDIs with SMA staff), who said that repetition of the content is key to enhancing SMA's impact. As one staff member suggested, "Sometimes they forget what we teach them, and they do not put it into practice… Many times it is necessary to teach them again and we have to go with them to the field" (man, IDI). The third potential solution comes from a program beneficiary (one woman, one IDI with members), who suggested making SMA more interactive. As she said, "[The trainings] should be

more dynamic…in other trainings I have known that they do the training with dynamic games. They lift our spirits, and sometimes we get tired from domestic work and in the process of training, we get sleepy" (member, IDI). Again, hiring an SMA staff member with expertise in adult learning modalities may assist in developing the kind of engaging programming this woman describes.

Twelve respondents (five women, two IDIs with FPO leaders, three IDIs with FPO members; seven men, three IDIs with leaders, two IDIs with members, two IDIs with SMA staff) identified the inputs needed to apply SMA as too expensive. As one of the women explained, "Sometimes there is no money to buy the products for planting and so it is not possible to practice how to apply fertilizer and pesticides for pests" (leader, IDI). Potential solutions may include supporting FPOs in finding agri-dealers who offer competitive pricing for their inputs, working with FPOs to identify how to purchase these inputs in bulk, and providing small subsidies to FPOs or producers when possible.

3.6 Women's and men's gender roles

In the study context, women's roles largely feature providing unpaid care to their families and supporting their spouses, including being submissive to one's spouse. Women are also expected to remain faithful to their spouses; men are not held to any such standard. Cultural attitudes favor machismo, or a strong sense of masculine pride. As a result, men enjoy more control, particularly over decision-making, and men are expected to be primary income earners. Despite the gender norms women and men (i.e., FPO members, leaders, and SMA staff; 63 people total across all IDIs and FGDs) describe, there is variation in the social expectations that individuals hold for women and men. These variations are described herein.

Women's gender roles

Providing unpaid care, supporting their spouses, remaining faithful to their spouses, and, in some cases, being deferential to their spouses characterize women's gender roles (*Table 13)*. Nineteen respondents (eight women, two IDIs with members, six in three FGDs; 11 men, one IDI with leaders, one IDI with members, four IDIs with staff, five in three FGDs) mentioned domestic work as a principal component of women's work. As one woman said, "She helps to improve her family, she knows how to take care of her children" (member, FGD).[46]

Table 13. Women's gender norms disaggregated by gender

[46] Spanish translation: "Ayuda a mejorar su familia, sabe cuidar a sus hijos."

Gender norm	Women	Men	Total
Provide unpaid care	8	11	19
Support one's spouse	3	7	10
Remain faithful to spouse	0	3	3
Submission to spouse	1	1	2

Note: Numbers reported are counts of individual respondents in both IDIs and FGDs. Counts come from open-ended questions that were asked in 14 IDIs with women, FGDs with 15 women, 21 IDIs with men, and FGDs with 13 men.

Ten respondents (three women, from the same FGD; seven men, one IDI with leaders, one IDI with members, one IDI with SMA staff, four from two FGDs) mentioned that women should support their husbands, which may take form in a few different ways. Three respondents (one woman, one FGD; two men, one IDI with leaders, one IDI with SMA staff) mentioned supporting one's husband in his productive work. As one man said of how a good wife should behave, "They work in the fields just like men, planting, cleaning, spraying the peas. They have initiative and interest in earning money and supporting their families, because they like to help their husband at work" (leader, IDI).[47] Another form of supporting one's spouse is to serve them; two women from the same FGD shared this idea. As one woman said, a woman should "respect him [her spouse] and always have the things he uses ready" (member, FGD).[48] Other responses were vague about the form of support women are expected to show to their spouses.

Women are also expected to remain faithful to their spouses, and even curtail their interactions with others to maintain the appearance of faithfulness. This perspective is driven by three men when asked about the qualities a good wife would have (one IDI with members, two in two FGDs). One man said that a good wife is one "who does not allow herself to be stolen by a man" (member, FGD).[49] Another said a good wife is "faithful" (member, FGD).[50] Although less specific, the third man said a good wife is someone who "does not go out on the street and does not go around talking to others" (member, IDI).[51]

Four respondents (one woman, one FGD; three men, two FGDs) shared comments that suggest women should be deferential to their spouses. A woman shared that a good daughter-in-law "is obedient" (member,

[47] Spanish translation: "Hacen trabajo en el campo igual que un hombre, siembran, limpian, fumigan las arvejas. Tienen iniciativa e interés de ganar dinero y apoyar a su familia, porque les gusta ayudar a su esposo en el trabajo y es un buen ejemplo para su comunidad."

[48] Spanish translation: "Respetarlo tener siempre listo las cosas que él usa."

[49] Spanish translation: "Que no se deje robar por un hombre."

[50] Spanish translation: "Ser fieles."

[51] Spanish translation: "no salen a la calle también y no andan hablando con las demás."

FGD), though she did not specify whether a woman should be obedient to her spouse or her in-laws.[52] Relatedly, a man said good wives are "obedient" (member, FGD).[53] Two men from the same FGD said women should support their spouses, though concluded their remarks by saying pairs of spouses should support each other equally. As one of them said, "A man needs a woman by his side who supports him and takes care of him…This is the only way a home can move forward, if both support each other equally."[54]

Men's gender roles

Men also enjoy greater control than women, particularly around decision making, and are expected to be the primary income earners for their households (*Table 14)*. These norms likely stem from the culture of machismo, or strong male pride, that is evident in SMA program areas (*Table 14)*. Men enjoy much more influence over decision making than women; ten respondents (six women, one IDI with members, five from three FGDs; four men, three IDIs with members, one in an FGD) shared such comments. As one man explained, "As the man of my house, I decide alone and then I tell my wife and family" (member, IDI).[55] Similarly, a woman said it is "mostly men" (member, FGD) who make decisions and that men have the last word in decision-making.

Table 14. Men's gender norms disaggregated by gender

Gender norm	Women	Men	Total
Serve as primary decision-maker	6	4	10
Provide most household income	1	3	4
Machismo	0	4	4

Note: Numbers reported are counts of individual respondents in both IDIs and FGDs. Counts come from open-ended questions that were asked in 14 IDIs with women, FGDs with 15 women, 21 IDIs with men, and FGDs with 13 men.

However, several respondents shared perspectives on decision making that were more inclusive of women's viewpoints; 22 respondents (12 women, nine from IDIs with members, three from two FGDs; ten men, one IDI with leaders, four IDIs with members, five men from two FGDs) shared that they typically make decisions around agricultural production and household finances jointly with their spouses. Considering all the comments related to decision making (i.e., men's control and joint decision making), it appears that women and men may have a range of influence over decisions, though men's control over decisions may ultimately be favored.

[52] Spanish translation: "Ser obediente."

[53] Spanish translation: "Ser obedientes."

[54] Spanish translation: "Hombre necesita a su lado a una mujer que lo apoye y que lo cuide… así un hogar puede salir adelante, si los dos se apoyan por igual."

[55] Spanish translation: "como hombre de mi casa lo decido sólo y después le digo a mi esposa y mi familia."

Men are expected to be the primary income earners in their households, a belief mentioned by four respondents (one woman, one IDI with members; three men, three from two FGDs). As one man said, a good husband is someone who has "skills go out to work outside the community so that the wife and children do not lack anything in the home" (member, FGD).

Machismo, or cultural attitudes that favor strong, manly pride, is prevalent in the program area, as noted by four SMA staff members (four men, four IDIs). One SMA staff member hypothesized that "sometimes [men] think or feel that women can take away their power" (man, IDI).[56] Another SMA staff member reported how "at the beginning [of implementing the program] it was hard…many times the women said that the man is the boss in the house," and that "even the man gets upset when one says that we are all equal" (man, IDI).[57] He later shared that, "as I said, at the beginning it was difficult, but now we are much better, just with [women's] participation [in SMA] it is already a gain."[58] Overall, such cultural attitudes reveal that SMA staff may face resistance to delivery and uptake of the program, but staff are still able to successfully challenge such attitudes through the SMA program.

3.7 Leadership and influential women and men

FPO leaders and members (55 people total; from 14 IDIs with women, FGDs with 15 women, 13 IDIs with men, and FGDs with 13 men) were asked about leaders and other influential women and men in their communities.[59] Overall, women's and men's leadership qualities are similar. The ways in which women and men may positively influence their communities is gendered, with men enjoying more forward-facing and politically powerful roles in their communities relative to women.

[56] Spanish translation: "a veces ellos piensan o sienten que la mujer les puede quitar el poder."

[57] Spanish translations: "Al inicio, fue duro…muchas veces las mujeres decían el que manda en la casa es el hombre;" "aún se molesta el hombre cuando uno dice que todos somos iguales."

[58] Spanish translation: "Como le digo, a un inicio sí nos costó, pero ahora estamos mucho mejor, solo con la participación de ellas ya es ganancia."

[59] Respondents were asked about leadership and influential women/men separately to account for socially desirability response bias that may be more prominent in FPOs that had received the women's leadership training prior to data collection. Further, respondents were asked about "influential" women and men to account for individuals who may not hold formal leadership roles, but are nonetheless active in their communities.

Leadership qualities

FPO members and leaders described women's and men's leadership characteristics similarly. Women (29 women total; 14 IDIs with women, FGDs with 15 women) describe women's leadership qualities as being supportive of others (nine women; seven IDIs, two in two different FGDs), responsible (four women; two IDIs with leaders, one IDI with member, one in an FGD), committed to learning (two women; two FGDs), self-respecting (one woman; one FGD), and respectful of others (one woman; one IDI with members). As for men (26 men total; 13 IDIs with men, and FGDs with 13 men) describing men's leadership qualities, men are expected to be supportive of others (four men; two IDIs with leaders, two IDIs with members), respectful of others (three men; three IDIs with leaders), inclusive (one man; one IDI with leaders), and responsible (one man; one IDI with leaders).

However, one man FPO leader explained that to be an effective leader, he must balance his friendly attitude with being strict at times. In his words, "I have a good human relationship with people, but sometimes you have to be demanding to pressure people to do a good job, to be strict" (leader, IDI).[60] None of the women, whether leaders or members, indicated they would consider using such pressure to ensure positive outcomes for their FPOs. In contrast, one woman, who had participated in the women's leadership training, shared that for a woman to become a leader, "The men give them permission" (member, FGD).[61] The contrast between the man leader's assertiveness and the woman's focus on deference to men show that women leaders may be held to a double-standard relative to men, despite women's and men's leadership qualities being superficially the same.

Influential women

When asked about influential women and men (i.e., those who can effect change in their communities), women's and men's (55 people total; 14 IDIs with women, FGDs with 15 women, 13 IDIs with men, and FGDs with 13 men) comments reveal that the ways in which women and men may be influential are highly gendered (*Table 15*). First, we will examine influential women, who are perceived to be those who are economically active (i.e., engages in remunerative work), active in their communities, and serve as role models for other women.

Table 15. Perceptions of influential women and men by gender

	Influential women			Influential men		
	Women	Men	Total	Women	Men	Total
Economically active						

[60] Spanish translation: "Tengo una buena relación humana con las personas, sin embargo, a veces se debe ser como exigente para presionar a las personas para que hagan un buen trabajo, ser estricto."

[61] Spanish translation: "Los hombres les dan permisos,"

Agriculture	5	5	10	4	2	6
Teaching	4	5	9	0	0	0
Midwifery	6	1	7	0	0	0
Textile craft	4	2	6	0	0	0
Nursing	4	2	6	0	0	0
Active in community						
Leadership role	2	4	6	0	0	0
School board	4	1	5	0	0	0
Trainings	1	3	4	0	0	0
FPOs	0	2	2	1	5	6
Church	0	2	2	0	0	0
Local government	1	0	1	7	11	18
Serve as a role model						
Women	6	5	11	0	0	0
Men	0	0	0	0	2	2
Either women or men	0	0	0	4	4	8
Children	0	0	0	0	2	2

Note: Numbers reported are counts of individual respondents in both IDIs and FGDs. Counts come from open-ended questions that were asked in 14 IDIs with women, FGDs with 15 women, 13 IDIs with men, and FGDs with 13 men.

Several respondents shared that an influential woman is someone who is economically active. Some respondents were specific about the forms of economic activity that are acceptable for women; ten respondents (five women, one IDI with leaders, one IDI with members, three in an FGD; five men, two IDIs with leaders, two IDIs with members, one in an FGD) mentioned working in agriculture, nine respondents (four women, one IDI with leaders, one IDI with members, two in two FGDs; five men, two IDIs with members, three in three FGDs) mentioned working as teachers, seven respondents (six women, four IDIs with members, two from two FGDs; one man, one IDI with leaders) mentioned working as midwives, six respondents (four women, one IDI with leaders, one IDI with members, two from one FGD; two men, two IDIs with leaders) mentioned women working with textiles (e.g., weaving or embroidery), and six respondents (four women, two IDIs with members, two in an FGD; two men, one IDI with leaders, one IDI with members) mentioned working as nurses.[62] An influential woman is someone who "weaves their own or someone else's *huipils*[63] here, and those who raise pigs cut them up and sell the meat, and then they have an income," (member, FGD) as one woman shared. While both women and men per-

[62] Note that five respondents said an influential woman could work both in agriculture or with textiles; one said they could be those that are in teaching or work with textiles; one respondent said they could be in teacher or agriculture; and one respondent said they could be in teaching, nursing, or agriculture. While some respondents gave multiple examples of how women could be economically active, each respondent was only counted once toward the total of 29 respondents.

[63] A huipil is a traditional style of dress worn by women in central America.

ceive women who earn an income as influential, some of the sectors (i.e., teaching and nursing) deemed most acceptable for women require an education beyond high school. In other words, women are held to higher standards than men to being perceived as economically active.

Being active in one's community is another way in which women may be perceived as influential, as twenty-one respondents (ten women, one IDI with leaders, six IDIs with members, three members in two FGDs; 11 men, three IDIs with leaders, five IDIs with members, three members in two FGDs) shared. Forms of being active in one's community include holding an unspecified community leadership role (two women, two IDIs with members; four men, two IDIs with leaders, one IDI with members, one in an FGD), participating in the local school board (four women, one IDI with leaders, three IDIs with members; one man, one IDI with leaders), participating in trainings (one woman, one IDI with members; three men, one IDI with leaders, two IDIs with members), their FPOs (two men, one IDI with leaders, one in an FGD), supporting their churches (two men, one IDI with leaders, one in an FGD), or participating in local government (one woman, one IDI with members). As one woman member said of influential women being those who are active in the community in her IDI:

> "[They are the] types of women who give their time and participate in any institution or project. They are the ones who manage to get something for the future, despite the jobs they have at home and taking care of the children. It does not matter when they have love for the community."[64]

She highlights how an influential woman is the kind that manages to rise above the gendered constraints she faces (i.e., unpaid care responsibilities, as mentioned in sections 3.3, 3.5, and 3.6) to contribute to her community. While admirable, this kind of thinking reveals the bind that women may face in being influential in their communities: women must support their spouses with household production; complete their domestic work, which already overburdens many of them; and take on additional, likely unpaid, work for their communities. Women are held to a higher standard than men to be perceived as influential. As described in the next sub-section, men only need to complete their productive work and support their communities to be perceived as influential.

Eleven respondents (six women, one IDI with leaders, five IDIs with members; five men, two IDIs with leaders, two IDIs with members, one in an FGD) shared comments about how influential women are those who are positive role models for and/or help other women. As one woman explained, influential women "help other

[64] Spanish translation: "Los tipos de mujeres son las que dan su tiempo y que participan en cualquier institución o proyectos. Son los que logran obtener algo en el futuro, a pesar de lo trabajos que tienen en sus casas y el cuidado de los niños. No importa cuando tienen amor a la comunidad."

women. They are not envious. They share what they know" (member, IDI).[65] Another woman shared that influential women "can make the change by motivating other women to do the same work" (member, IDI). No respondents shared that women should be an example to men, which may stem from machismo. Gender norms hold that women's primary focus should be on maintaining their households and raising their children—not working in forward-facing roles in their communities (section 3.6). Women may not be role models to men as women are not expected to be as visible in their communities, where they would otherwise encounter men they could mentor. Further, some men expect their spouses to curtail their interactions with other men to maintain appearances of faithfulness (section 3.6), precluding women from serving as role models to men. Finally, gender norms favor men's control over decision-making and women's obedience to their spouses (section 3.6), which may discourage women from speaking up and taking on leadership qualities of a role model in the presence of men, within and outside of the household.

Despite the overarchingly positive commentary about influential women, six respondents (five women, one IDI with leaders, four IDIs with members; one man, one IDI with members) shared that some people are jealous of these influential women. Some who perceive influential women negatively are those "who don't like women continue to thrive. [They are] people in the community. There is always envy" (woman, member, IDI).[66] Another woman member attributed this negative feeling to women who are married to more domineering men in her IDI; in her words:

> "Other women and men at home have not been able to make a change…they are the ones who speak ill of the women leaders. They are macho men who don't even let their wives go out, and other women feel jealous of the others."[67]

Influential men

Similar to perceptions of influential women, influential men were also perceived to be those who are economically active, involved in their communities, and serve as role models for others by women and men FPO members and leaders (55 people total; 14 IDIs with women, FGDs with 15 women, 13 IDIs with men, and FGDs with 13 men). Nine respondents (six women, two IDIs with FPO leaders, three IDIs with members, two women in

[65] Spanish translation: "ayudan a otras mujeres, no son envidiosas, comparten lo que saben."

[66] Spanish translation: "quienes no les gusta que las mujeres sigan prosperando. Algunas personas de la comunidad. Siempre hay envidia."

[67] Spanish translation: "Otras mujeres y hombres en su hogar no han podido hacer el cambio y mucho menos en la comunidad, ellos son los que hablan mal de las lideresas."

the same FGD; three men, one IDI with FPO leaders, two IDIs with FPO members) stated that, like influential women, influential men are those who are economically active. For men, acceptable economic activity includes agriculture (four women, three IDIs with members, one in an FGD; two men, one IDI with leaders, one IDI with members). This finding contrasts to influential women, who may work in several sectors, though some of them require significantly more formal education to achieve.

Like influential women, influential men are those who are active in their community, although in more politically powerful ways. Thirty-four respondents (17 women, two IDIs with FPO leaders, seven IDIs with FPO members, eight women from two FGDs; 16 men, five IDIs with FPO leaders, five IDIs with members, six in three FGDs) shared that influential men are those who are active in their community. Of the 34 respondents who shared this opinion, 18 (seven women; 11 men) explicitly stated that influential men are those who are in local government. As one man member said in an FGD, influential men participate:

> "In the *COCODEs*, as the mayor or the leaders of the association, because they are the ones who speak for the community. If there are opportunities, they look for them…They are always the men who make changes."[68]

Only one respondent, a woman (member, IDI), shared that influential woman are those who participate in local government. This stark contrast shows that men's control over community activities—those that affect everyone within the community—is much more normal than women's influence on or control over such activities. Given the gendered time constraints women face with regard to FPO (section 3.3) and SMA participation (section 3.5), it is possible that women lack the time to run for and hold public positions in local government. Women who do have the time and interest in public service may feel discouraged from working in local government as the space is male-dominated, and some women are discouraged from interacting with men in the community, due to men's concerns with their marriages appearing faithful (section 3.6).

Influential men are also those that set a good example for others in the community, a belief shared by 12 respondents (five women, two IDIs with members, three from two FGDs; seven men, two IDIs with leaders, three IDIs with members, two from two FGDs). A closer examination reveals that influential men may be role models

[68] COCODEs are Consejos Comunitarios de Desarrollo Urbano y Rural, or Community Councils for Urban and Rural Development. A COCODE is a community-level council that coordinates between public and private institutions, local authorities, and the community (Government of Guatemala, 2002).

to anyone of any gender (four women, one IDI with members, three from two FGDs; four men, one IDI with leaders, two IDIs with members, one in an FGD), other men (two men, one IDI with leaders, one IDI with members), and/or children (two men, one IDI with members, one in an FGD). As such, influential men may be a positive role model for women and men, while influential women serve as role models solely for other women.

As for being role models to children, a man said, influential "men always fulfill their obligations and their responsibilities both in the church and in the family. They are men to be admired and are good examples for young children" (member, FGD).[69] Though only two respondents mentioned influential men being role models to children, no respondents share similar sentiments about influential women—despite that women spend more time with children and are typically their primary caregivers.

Other ways influential men may be active in their communities are by participating in their FPOs, as shared by six respondents (one woman, one IDI with leaders; five men, two IDIs with leaders, three from two FGDs). Men may be more likely to be active in FPOs—and therefore perceived as influential—as men's FPO participation is not constrained by unpaid care work in the way that women's is (section 3.6). Additionally, some women may need their spouse's permission to join an FPO outright (section 3.3) and some men expect obedience (section 3.6). It is easier for men to join and participate in FPOs, and therefore be influential, relative to women for these reasons. Finally, social norms favor men's decision-making (section 3.6), which may discourage women from speaking up in male-dominated spaces, like FPOs, thereby precluding women from being perceived as active in their FPOs and therefore influential.

Six respondents (four women, one IDI with FPO leaders, two IDIs with FPO members, one FGD with members; two men, one IDI with FPO leaders, one IDI with members) noted that not all community members perceive influential men positively. In contrast to the backlash influential women may face, none of these six respondents cited envy as a reason influential men may not be well regarded. One woman said the men leaders in her community "are more arrogant, angry and do not have patience. Some of them make women feel less than them. There are no women leaders in the community now" (member, FGD).[70] This woman's comments reveal she perceives the influential men in her community as having outsized influence, to the point of excluding women.

[69] Spanish translation: "hombres siempre cumplen sus obligaciones sus responsabilidades tanto en la iglesia como en la familia. Son hombres de admirarlos y son buenos ejemplos para los niños pequeños."

[70] Spanish translation: "prepotente, enojados y no tienen paciencia, algunos hacen de menos a las mujeres. Lideres mujeres no hay ahora en la comunidad."

Influential men may not be perceived positively in some cases because they are advantaged given the gender disparities between women and men in their communities.

3.8 Constraints to women's leadership and proposed solutions

FGD participants were asked (28 people total; FGDs with 15 women and 13 men) what challenges women in the community face to becoming leaders. The challenges identified include the time burden of unpaid care, a lack of spousal support, and a limited acceptance of women's leadership by the community (*Table 16*). Few respondents had ideas for how to address these challenges to women's leadership; those who did have suggestions indicated that supporting existing women's organizations and encouraging women to become leaders could help.

Table 16. Constraints to women's leadership

Constraint to women's leadership	Women	Men	Total
Time burden of unpaid care	4	2	6
Limited acceptance of women's leadership	3	2	5
Lack of spousal support	3	1	4

Numbers reported are counts of individual respondents in focus group discussions. Counts come from focus group discussions with 15 women and 13 men.

Constraints to women's leadership

Six respondents (four women, three different FGDs; two men, two different FGDs) shared that women's unpaid care work constrains them from becoming leaders in their community. Five respondents (three women, from the same FGD; two men, from the same FGD) shared that negative feelings and/or backlash from the community is a constraint for women's community leadership. As one woman shared, "It is not easy to become a leader, because sometimes women are embarrassed to participate" (member, FGD).[71] As one of the men shared, "Not everyone has a peaceful mentality to a woman's attitude" (member, FGD).[72] Interestingly, all five of these respondents are affiliated with the same FPO, which suggests that backlash against women's leadership may be more concentrated in some communities.

Four respondents (three women, from two different FGDs; one man, one FGD) shared that a lack of support from their husbands, or even a lack of their permission, to become a community leader was a constraint. As

[71] Spanish translation: "No es fácil llegar a ser líder porque a veces las mujeres les da pena participar."

[72] Spanish translation: "no todos cuentan con una mentalidad pacífica a la actitud como una mujer."

one woman shared, “There are many obstacles to being a leader: not having the support of one's husband, not having time to participate in any activity because of what to do in our homes or because they are afraid to participate” (member, FGD).[73] Similarly, a man said that women do not become leaders in their community, because “their husbands don't give them permission and that's the problem and that's why they don't dare” (member, FGD).[74]

Strategies to enhance women’s leadership

FPO members that participated in the FGDs did not share many specific ideas for how to help women enter leadership roles in their community. Four respondents (two women, two from one FGD; two men, two from one FGD) shared that one option is to form and/or support women-only groups in the community to help more women become leaders. Three respondents (one woman, one in one FGD; two men, two in two FGDs) shared that encouraging women would help, though they did not specify what this kind of encouragement could look like. We discuss additional strategies to bolster women’s leadership in the discussion section (section 4.2), though these additional suggestions do not stem from respondents’ ideas.

[73] Spanish translation: “Son muchos los obstáculos que pasa uno para ser una lideresa, no tener apoyo del esposo, no tener tiempo para participar en alguna actividad por el que hacer en nuestras casas o porque tienen miedo de participar.”

[74] Spanish translation: “sus esposos no les dan permiso y eso es el problema por eso ellas no se animan.”

4. DISCUSSION AND CONCLUSION

To address market access issues farmers face, TechnoServe began implementing the SMA program, which used FPOs as a platform to deliver agribusiness, in Guatemala and Nicaragua in 2019. The program sought to increase revenue, profits, and agricultural productivity among smallholder farmers, as well as women's leadership and empowerment. The SMA program also aimed to increase the market share of FPOs. Considering that women's contributions to agricultural value chains are often under-recognized and undervalued, SMA included gender-responsive and gender-transformative approaches to ensure women smallholders would benefit from the program (Quisumbing et al., 2021). Such activities included a women-only leadership training, as well as the EFF trainings for women and men FPO members and leaders.

The purpose of this study was to better understand women's empowerment, women's leadership, and the gender dynamics that underpin women's opportunities within the context of FPOs that participated in SMA in Guatemala. We examined how the SMA program potentially influenced these outcomes, with the goal of identifying opportunities to strengthen the program and reflect on how SMA can better support women's leadership in FPOs. Below, we summarize the key findings by research question and make specific recommendations for strengthening future programming.

4.1 Summary of key findings

Overall, the study results suggest that women experience constraints to FPO engagement, SMA training participation, and holding leadership roles. Many of these constraints can be traced to men's greater control over decision-making and the more public roles that men typically occupy, both in FPOs and their communities. Herein we summarize key findings, with an emphasis on gendered differences evident in these findings, particularly those related to FPO dynamics, the SMA program, and women's leadership. Summaries are arranged by research question (as laid out in section 1.4).

Research question 1: How do FPO relationships (among and between leaders and members) affect women's and men's economic opportunities and economic empowerment?

Overall, women and men join and benefit from FPO membership for similar reasons, though women are constrained in ways men are not due to caregiving responsibilities, as well as the need for spousal approval from

their husbands. Both women and men FPO members appreciate the enhanced confidence, knowledge of agricultural production, and income that come from FPO participation. Considering that the women and men who participate in FPOs are smallholder farmers, increased knowledge of agricultural production can often lead to increased agricultural yield and profits. In short, women and men perceive FPO participation as a means to enhance their economic opportunities. The economic opportunities may stem from how FPOs are organized and how the agronomy trainings are delivered through FPOs. For instance, the group-based nature of FPOs allows members to exchange ideas and information related to agricultural production and their livelihoods with other smallholder farmers growing the same crops (i.e., those produced for sale through the FPO). Several women and men reported the increased access to agronomy trainings delivered through their FPOs, which may improve their ability to grow higher-quality products and larger quantities to sell through their FPOs.

At the same time, women's caregiving responsibilities and their need to seek approval to participate from their husbands, limit their FPO participation. Women are expected to perform the bulk of unpaid childcare for their families. Some women are prevented from attending FPO meetings due to childcare constraints during meeting times and the lack of support from other potential care providers. Although some women may bring their young children with them to FPO meetings, the quality of their participation may be reduced as they split their attention between FPO activities and watching their children. Additionally, some women may need the consent of their husbands to participate in FPOs, which may stem from concerns about women neglecting their domestic duties, concerns about interactions with men outside of their families, and expectations that women should be deferential to their husband. Both caregiving responsibilities and the expectation that women seek permission can be partially addressed by offering childcare during meetings, which was part of the gender-responsive programming offered by SMA, as well as through gender trainings that engaged husbands and wives in gender-transformative approaches that aim to challenge norms that harm women, encourage intrahousehold collaboration, and encourage more equitable distributions of household labor.[75]

How decisions are made in FPOs shapes a broad range of economic opportunities for women and men. Overall, FPOs make decisions either at the board level, after which they are communicated to the membership, or

[75] One such evidence-based example includes Household Methodologies, such as those described in this toolkit: https://www.fsnnetwork.org/resource/household-methodologies-toolkit.

they are made during a general assembly, which allows all members to participate in decision-making. However, women's ability to participate in decision-making may be hindered by the challenges they face to FPO participation in general. Additionally, both women and men reported that men have more influence over decisions and that norms often discourage women from speaking up when decisions are being made.

Some women FPO members we interviewed described enhanced feelings of self-confidence in taking decisions that they attributed to FPO membership. Women members perceive their participation as beneficial to their decision-making influence. They may feel more confident in their decision-making as membership connects them with other smallholders (particularly other women members) and helps them gain important knowledge about agricultural production that can support them in making informed and confident decisions. The gender-sensitive and women's leadership components of SMA in particular also fostered women's confidence in decision-making. Additionally, reducing barriers to FPO participation may further enhance women's confidence in making decisions, as FPO membership itself is often cited as a source of the confidence needed to take decisions.

Research question 2: How does SMA benefit trainees and FPOs? How can SMA be improved?

Both women and men perceived SMA positively, noting several benefits in terms of agricultural production and sales, as well as in regard to FPO involvement. For instance, both women and men shared that SMA benefits included increased profit, improved ability to save money, strengthened budgeting knowledge, and greater entrepreneurship skills. Additionally, women and men reported that because of SMA they were more confident taking decisions, in part because of strengthened agricultural knowledge. Women and men also reported that intrahousehold communication had improved because of the program, highlighting some of the positive results of the gender-transformative program components.

While findings show that women and men perceive SMA positively, there were some limitations to program delivery and constraints to fully benefiting from SMA, particularly among women. These constraints include their work burden, caregiving responsibilities, and the perceived need for them to seek approval from their husbands participate. Firstly, attending SMA trainings is time consuming, which made it difficult for women to balance attendance with their existing responsibilities. Relatedly, a lack of childcare during training sessions among the FPOs studied made it difficult for women with young children to attend SMA trainings or fully participate in them, precluding them from fully benefiting from SMA. Further, women may need permission from their

husbands to participate in SMA. The need for permission may be due to concerns that women's participation in FPOs or SMA may interfere with their ability to fulfill their childcare and other domestic responsibilities. Engaging couples using so-called household methodologies, a gender transformative approach that encourages household members to identify common goals and work toward them together, may encourage men and women to share domestic and caregiving responsibilities more equitably, ultimately facilitating women's attendance in SMA trainings.

Gender norms in the program areas also constrain women from participating in and fully benefiting from SMA. Marital fidelity and avoiding any perception of infidelity is highly valued to the extent that women may even be expected to limit their interactions with other men to maintain this standard. Moreover, men may object to their wives' participation in FPOs and SMA out of concern about their spouses interacting with other men. Furthering the gender trainings to encourage a broader range of gender transformative approaches and to engage women and men to unpack and challenge these norms and build trust may facilitate women's participation in SMA. Additionally, the program could further address this barrier from a gender-responsive approach by hiring more women staff who could interact directly with women.

Other constraints of SMA delivery and uptake of the trainings affected both women and men, as noted by SMA participants and staff alike. These constraints include the Spanish-language delivery of trainings (most study participants are most comfortable communicating in K'iche' or Kaqchikel), difficulties understanding or remembering technical details of the trainings, and the high cost of agricultural inputs needed to implement the trainings. Additionally, SMA participants—women and men—noted a lack of transportation options to get to SMA trainings as a challenge. To improve comprehension of the training content, SMA staff may benefit from training on how best to communicate complicated gender and agricultural topics in target languages. Repeating technical content, making trainings more interactive, and providing visual aids may also help women and men to understand, remember, and apply the trainings. To these ends, hiring a dedicated staff member with expertise in adult education for low-literacy populations may help mitigate such challenges.

To support FPO members by reducing the cost of agricultural inputs needed to apply the technical trainings delivered by SMA, the program may consider supporting FPOs in developing contracts with agri-suppliers that provide competitive or bulk pricing of these inputs. Alternatively, subsidizing inputs during the initial trial of

these innovations could encourage their uptake, especially if experimentation is perceived as risky. Finally, transportation challenges that limited attendance at the SMA training sessions could be addressed by subsidizing bus fares to and from training locations or coordinating rides from SMA staff among FPO members and leaders. SMA staff members might also consider holding trainings in multiple locations, so that FPO members and leaders can attend more conveniently located trainings.

Research question 3: How are women able to function as leaders on individual, family, FPO, and community levels?

Turning to women's leadership, on the surface, it may seem that desirable characteristics for women and men leaders are similar: both influential women and men are expected to support their families and be active in their communities. However, the ways in which women and men may embody those qualities are gendered, and in some cases, women are held to higher standards for the same characteristics. Firstly, while women's income generation is perceived positively, some of the jobs that are acceptable for women require more formal education than so-called men's jobs. For instance, nursing and teaching (so-called women's jobs) require more formal education than agricultural production (so-called men's jobs).

We also find that community participation is an important leadership quality of both women and men, though it is more acceptable for men to hold public-facing roles in their FPOs and local governments than women. This phenomena may be due to gender norms that limit women's ability to take up opportunities outside the home, such as the expectation and time burden of domestic work, as well as expectations that women also be more reserved. Norms that limit men's role in childcare, as well as a lack of childcare options more generally, may further contribute to this time burden. It is also possible that men holding forward-facing roles in their local governments is more acceptable, simply because men already tend to hold these roles. Women may be less likely to become community leaders if their husband overtly discourages them from doing so, particularly if men are concerned that their wives may shirk their domestic and caregiving responsibilities.

Additionally, our findings reveal some communities do not encourage prospective women leaders. This may occur because women's leadership is perceived as a threat to men's control or because women lack mentors to guide them to becoming leaders, especially given that local governments are male-dominated and women may be discouraged from interacting with men outside of their families (section 3.6). Lack of support for women in

leadership roles may also stem from cultural norms around *simpatía*, or the expectation that women avoid conflict and maintain smooth social relationships, as community leadership roles require leaders to engage in debate and make decisions that some in the community may disagree with (Organista, 2007). Both these constraints to women's leadership—lack of support from spouses and from the community—may be addressed by a combination of gender transformative strategies that promote norm change. While household methodologies may address some of the intrahousehold dynamics, broader community dialogues that engage with a variety of influential men in the community are another approach SMA could take in the future to create space for women's leadership in these communities (Nordhagen et al., 2017).[76, 77] Such community dialogues, which have been used successfully in a variety of contexts, can mitigate the demands that development programs place on women's time, as well as support women's self-esteem and self-efficacy—qualities that can help women be successful leaders (Malapit et al., 2021). Hiring more women SMA staff members may be another gender-responsive approach. As women train FPO members and leaders (both women and men) on agricultural production, agribusiness, women's leadership, and gender equality, women SMA staff may model how women can occupy community-facing roles and support others in achieving their goals.

4.2 Recommendations

Drawing on both SMA's successes and challenges, we conclude with how this study points to specific recommendations to improve the design and implementation of SMA and similar programs that aim to empower women and enhance their leadership skills using FPOs as a delivery platform. Many of these suggestions have been presented earlier in this discussion paper, and we bring them together in this section. We also include recommendations on how to help SMA (or similar programs) achieve their goal of increasing agricultural productivity and profits, alongside strengthening women's leadership among smallholder farmers.

[76] One example of the community dialogue approach comes from Helen Keller International, who developed the Nurturing Connections curriculum: https://www.fsnnetwork.org/sites/default/files/TOPS_Nurturing%20Connections_English_FINAL_P.pdf

[77] The World Food Program's community dialogue curriculum is called Community Conversations: https://docs.wfp.org/api/documents/WFP-0000110657/download/

Program attendance

1. *Provide childcare during trainings.* Women struggle to attend trainings due to the time burden of their childcare responsibilities (section 3.5). Further, childcare provisions may alleviate men's concerns that their spouses will neglect their care responsibilities in favor of attending SMA trainings (or participating in an FPO or taking up a leadership role). Given that many women feel that they must seek permission for their husbands to participate in SMA activities (section 3.5), mitigating such concerns by offering childcare may increase women's participation. SMA offered childcare to support its programming from May to December 2023. In practice, the availability of childcare support was uneven across program areas and some study participants still experienced this constraint (or their IDIs or FGDs were conducted just prior to childcare being offered). These glitches in delivery suggests implementing childcare options may not be straight forward and that there may be challenges on the supply of (e.g., identifying or paying providers) or demand for (e.g., viewing the provider as trustworthy) childcare.
2. *Support men to share in more equitable caregiving responsibilities to release women's time to participate in trainings and related activities.* Men in program areas are normally not expected to perform unpaid care work, leaving women to perform the vast majority of it (section 3.6). In SMA's EFF, a gender transformative curriculum with a combination of single-sex and mixed-sex group discussions, was particularly suited to challenge such norms that constrain women's time. However, only one FPO in the study had received the EFF training by the time of data collection, limiting the extent to which we could explore experiences with and the effects of EFF. Overall, incorporating similar gender transformative approaches as part of interventions to encourage a more equitable distribution of unpaid care work may help free women's time to allow them to participate in group-based trainings. In addition to strategies that combine single-sex and mixed-sex group discussions, such as those used be EFF, household methodologies (interventions that target household members to identify and work toward common goals, while challenging gender norms) and community dialogues (interventions that engage community leaders and members—women and men—to challenge gender norms, attitudes, and behaviors) are other gender-transformative approaches that can support changes in norms that limit women's participation. Studies from both Africa and Asia find strong support for using household meth-

odologies and community dialogues to change harmful norms, but there is limited evidence on these approaches in Latin America (Ahmed et al., 2023; Baluku et al., 2009; Farnworth et al., 2015; Farnworth et al., 2018; IFAD, 2014; Lecoutere & Chu, 2024; Lemma et al., 2021; Malapit et al., 2021; Nordhagen et al., 2017).[78, 79]

3. *Mitigate the burden of transportation to SMA training locations.* The cost of transportation and lack of transportation infrastructure limited women's and men's ability to attend trainings (section 3.5). Providing subsidized bus fares or travel stipends may help prospective beneficiaries attend trainings. Alternatively, if some FPO members have vehicles, staff could help coordinate rides among members. Finally, hosting trainings in multiple locations to ensure that all beneficiaries can easily access them may increase women's and men's attendance.

Program staff and delivery

1. *Hire a staff member with expertise in developing learning materials and approaches for adult learners in low-literacy populations to support curriculum design and provide ongoing training to the program staff delivering the technical content.* Programs targeting adults with limited formal education face unique challenges in delivering training content and ensuring it is translated into practice, particularly in a linguistically diverse context like Guatemala (Amerson et al., 2015). SMA hired a staff member who specialized in working with low-literacy adults to address such needs among SMA beneficiaries, during the program design phase who continued through the duration of the program. Experts of this nature can help strengthen curricula and training materials and support other staff members who deliver this content.
2. *Hire a national gender specialist that is involved from program conceptualization to end.* Gender capacity building is critical to ensuring gender equitable development outcomes; while short trainings have limited ef-

[78] One example curriculum of a household approach is available here: https://www.fsnnetwork.org/resource/household-methodologies-toolkit.

[79] Helen Keller International's "Nurturing Connections" curriculum for a community dialogue is available here: https://www.fsnnetwork.org/sites/default/files/TOPS_Nurturing%20Connections_English_FINAL_P.pdf; The World Food Program's community dialogue curriculum "Community Conversations" is available here: https://docs.wfp.org/api/documents/WFP-0000110657/download/

fectiveness, long-term expertise building is effective (Mangheni et al., 2019; Njuki, 2016). SMA hired a gender specialist who was with SMA for the majority of the program, but resigned prior to data collection for this study. The role has since been filled. Having an individual in this role was critical for building gender capacity across staff and delivering gender-responsive and gender transformative programming.

3. *Hire more women staff.* Due to concerns about women interacting with men outside of their families (section 3.6) and women's need for spousal support or permission to participate in program activities or leadership roles (sections 3.3 and 3.8), women staff are uniquely positioned to reach women smallholder farmers. For most of SMA's duration, there were two women staff: a gender specialist, who resigned prior to data collection and has since been replaced, and a business advisory specialist, who was on maternity leave at the time of data collection and later returned to work. Hiring more women staff is a gender responsive approach that can help reach more women beneficiaries. Additionally, having women and men staff who deliver trainings can model women and men in shared leadership roles and cooperation between women and men to achieve shared goals. Evidence from similar models of program delivery in India and Ethiopia finds that exposure to women in leadership roles improves perceptions of women's leadership and reduces gender stereotypes (Beaman et al., 2009; Woldu & Tadesse, 2015).
4. *Ensure program staff speak the full breadth of local languages.* SMA participants in study areas shared that they often could not fully understand the training content that was delivered in Spanish (section 3.5). SMA hired staff that spoke many of the local languages, though it was challenging to identify candidates and hire staff to cover every language spoken in the program area. Delivering trainings in local languages may make it easier for beneficiaries to learn, retain, and eventually apply technical content. Although, in contexts where a wide number of languages are spoken, ensuring that staff have the appropriate technical expertise and can cover multiple local languages may prove challenging in practice. Long-term approaches that fall outside the scope of single projects, such as investing in the formal agronomy education of members of indigenous groups, are one potential solution.
5. *Repeat key themes across multiple training sessions.* Several respondents—both women and men—shared that they had trouble remembering topics discussed during SMA trainings (section 3.5). We suggest similar

curricula be designed to ensure key topics, particularly those related to gender equality and women's leadership, are repeated across multiple sessions to encourage retention.

6. *Provide program participants with graphic aids to take home.* Several women and men who participated in SMA shared that they struggled to understand and remember the details of the training sessions (section 3.5). Though SMA provided audio-visual materials to beneficiaries in Mayan languages, several participants specifically suggested that developing and distributing additional graphic aids may help them remember the training material. Additionally, respondents shared that a benefit of SMA participation was that they share what they learned in the sessions with their household members (section 3.4). Sharing easily understood graphics, may further promote information sharing among household members. Developing and distributing such graphic aids has been successful for other projects in Guatemala (Heckert et al., 2018).

Women's leadership

1. *Maintain women-only spaces.* Evidence from a variety of contexts suggests that women-only groups allow women to form meaningful social relationships and elevate their self-esteem (Chhoeun et al., 2008; Jones et al., 2012; Mudege et al., 2015; Oberhauser & Pratt, 2004). The women's leadership training component of SMA creates women-only spaces, and we suggest SMA continue to create and support such women-only spaces, whether through ongoing women-only leadership capacity trainings or supporting women-only committees within FPOs. Creating women-only spaces within male-dominated FPOs may facilitate women's leadership as it may give women safe spaces to support one another, develop their self-esteem, and practice applying the leadership skills gained through SMA, while ignoring expectations from men in their FPOs or families (CRS, 2012; Niewoehner-Green et al., 2019). Further, in contexts where women are encouraged to limit their interactions with men outside their families (section 3.6), women-only groups may be more effective and culturally sensitive (Kaaria et al., 2016).
2. *Engage men on women's leadership and increase community acceptance of women's leadership.* Women man be discouraged from taking up formal leadership roles, particularly in instances where these roles would lead them to outrank men (section 3.8). SMA engages women and men FPO leaders and members on gender topics with the EFF curriculum, and women only on women's leadership. While we suggest maintaining

women-only leadership trainings as a core component, future iterations may consider incorporating community dialogues (a gender transformative approach that engages a variety of community members to discuss and challenge gender norms and related behaviors) to help shift potentially harmful gender norms at the community level (Alemu et al., 2019; Assefa, 2020; Kinati et al., 2023). We specifically recommend community dialogues, because our findings (section 3.8) suggest community-level norms, not only FPO dynamics, discourage women from taking up leadership roles. Engaging women and men to reflect on women's capabilities and how men can share leadership responsibilities with women, either whether formally or informally, to strengthen their communities may encourage changes in gender norms related to the acceptability of women's leadership, ultimately fostering conditions in which women can be successful leaders.

Beneficiaries' uptake of lessons learned

1. *Support smallholder farmers in acquiring agricultural inputs.* One challenge to implementing the SMA technical trainings was the high cost of the required agricultural inputs (section 3.5). Similar programs may want to consider linking FPOs to agri-dealers to support bulk purchasing and foster competitive pricing or subsidizing the purchase of these inputs. Evidence from sub-Saharan Africa suggests that increasing access to inputs among farming cooperative members increases agricultural productivity (Blekking et al., 2021). Lowering the initial cost of agricultural inputs for FPO members through SMA will likely further increase smallholder farmers' profits.

4.3 Conclusion

Interest in increasing women's empowerment as a primary development outcome has been growing in recent years. As a result, there is more and more evidence on what works to empower women, particularly through group-based approaches in the agricultural sector (Brody et al., 2015; Cornwall, 2016; FAO, 2023; Johnson et al., 2018; Meinzen-Dick et al., 2004; Pyburn et al., 2023). The evidence presented in this report examines gender dynamics, women's empowerment, and leadership in the context of FPOs in Guatemala and how a group-based intervention, SMA, potentially influenced these outcomes. The evidence provides insights into what actions project implementers may take to increase participation in and encourage the uptake of the messages, both agricultural and gender-sensitive, delivered through group-based interventions. The evidence also points to opportunities for

project implementers to strengthen women's leadership, through their project design and partnering with the community. Integrating the gender-responsive and gender-transformative recommendations outlined in section 4.2 may help program implementers aiming to strengthen women's leadership, as well as increase agricultural productivity and profits among agricultural collectives. Ultimately, such recommendations may bolster group-based interventions' effectiveness in being a tool in increasing women's empowerment and advancing gender equality in the long-term.

APPENDIX 1. THEMES EXPLORED IN QUESTION GUIDES

Table 17 summarizes the key themes explored in the question guides used for IDIs with FPO leaders, IDIs with FPO members, IDIs with SMA staff, and FGDs with FPO members. We also include examples of the different questions posed directly to respondents during IDIs and FGDs. The themes of overview of FPO engagement, benefits of FPO engagement, leadership roles and leadership dynamics in FPOs, FPO decision-making, and constraints to FPO engagement help answer RQ#1 (How do FPO relationships (among and between leaders and members) affect women's and men's economic opportunities and economic empowerment?). Benefits of SMA program participation, SMA limitations, constraints to participating in/implementing SMA and proposed solutions, and constraints to applying SMA training content and proposed solutions help answer RQ#2 (How does SMA benefit trainees and FPOs? How can SMA be improved?). Finally, women's and men's gender roles, leadership qualities, and constraints to women's leadership and proposed solutions help explore RQ#3 (How are women able to function as leaders on individual, family, FPO, and community levels?).

Table 17. Summary of themes included in guide guides by respondent type

Key themes	Respondent type(s)	Example questions
Overview of FPO engagement	IDIs with FPO leaders IDIs with FPO members FGDs with FPO members	3. Why did you decide to join your Farmer Producer Organization (FPO)? 4. How does the FPO affect your livelihood opportunities?
Benefits of FPO engagement	IDIs with FPO leaders IDIs with FPO members FGDs with FPO members	5. How does being in the FPO benefit you? 6. What are the benefits of the FPO to the community? Why?
Leadership roles and leadership dynamics in FPOs	IDIs with FPO leaders IDIs with FPO members IDIs with SMA staff	7. How did you become a leader at your FPO? 8. How do you support your FPO and FPO members as a leader? 9. How would you describe your relationship with FPO leadership? 10. Overall, how would you describe your relationship with the FPO leaders who participate in the SMA program?
FPO decision-making	IDIs with FPO leaders IDIs with FPO members	11. How are decisions made at the FPO? 12. What topics are decided among members? 13. How are you personally able to provide input to your FPO?
Constraints to FPO engagement	IDIs with FPO leaders IDIs with FPO members FGDs with FPO members	14. What are the downsides of being in the FPO? Why? 15. What prevents more women from officially joining the FPO? Why? 16. What prevents more men from officially joining the FPO? Why?
Benefits of SMA program participation	IDIs with FPO leaders IDIs with FPO members IDIs with SMA staff FGDs with FPO members	17. Which topics were most helpful to you to learn about [in SMA]? Why? 18. How do the [women's leadership/gender equality trainings] benefit women?
SMA limitations	IDIs with FPO leaders IDIs with FPO members	19. Which topics were least helpful to you to learn about? Why?

	IDIs with SMA staff	20. What are the shortcomings of the [women's leadership/gender equality trainings]?
Constraints to participating in/implementing SMA and proposed solutions	IDIs with FPO leaders IDIs with FPO members IDIs with SMA staff	21. What challenges to participating in the SMA trainings did you experience? Why? 22. What is the most challenging part of your job with SMA? Why? 23. What is the most challenging part of working with FPOs? Why? 24. How can TechnoServe help you address these challenges?
Constraints to applying SMA training content and proposed solutions	IDIs with FPO leaders	25. What challenges to implementing the things you learned from the SMA trainings did you experience? Why? 26. What would help you overcome these challenges? Why?
Women's and men's gender roles	FGDs with FPO members	27. Generally, in your community, what makes a woman a good wife? Why? 28. Generally, in your community, what makes a woman a good daughter-in-law? Why? 29. Generally, in your community, what makes a man a good husband? Why?
Leadership qualities	IDIs with FPO leaders IDIs with FPO members FGDs with FPO members	30. What types of [women/men] are admired in your community? Why? 31. What types of [women/men] are influential in your community? Why? 32. Generally, in your community, what are community leaders like?
Constraints to women's leadership and proposed solutions	FGDs with FPO members	33. How could more women become community leaders? 34. What challenges do women in your community face in becoming leaders? 35. Generally, in your community, how are FPO leaders perceived? Why? 36. How could more women become FPO leaders?

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REFERENCES

Biblio Ahmed, A., Hoddinott, J., Menon, P., Quisumbing, A. R., Roy, S., & Younus, M. (2023). Agriculture, Nutrition, and Gender Linkages (ANGeL) Evaluation Results. Intl Food Policy Res Inst. https://books.google.com/books?hl=en&lr=&id=XcOpE-AAAQBAJ&oi=fnd&pg=PR7&dq=Agriculture,+Nutrition,+and+Gender+Linkages+(ANGeL)+Evaluation+Results&ots=9cnUoxwvG3&sig=IdvuUY4O3inh1kZ542eBeN5T1Ew

Alemu, B., Lemma, M., Magnusson, U., Wieland, B., Mekonnen, M., & Mulema, A. A. (2019). Community conversations on antimicrobial use and resistance in livestock. https://cgspace.cgiar.org/bitstream/10568/106552/1/CC_modue_AMR.pdf

Alkire, S., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G., & Vaz, A. (2013). The Women's Empowerment in Agriculture Index. World Development, 52, 71–91.

Amerson, R., Hall-Clifford, R., Thompson, B., & Comninellas, N. (2015). Implementation of a Training Program for Low-Literacy Promotoras in Oral Rehydration Therapy. Public Health Nursing, 32(2), 177 – 185. https://doi.org/10.1111/phn.12152

Assefa, K. (2020). Good Practice: Community Conversations. In Gender transformative approaches for food security, improved nutrition and sustainable agriculture – A compendium of fifteen good practices. Food and Agriculture Organization, International Fund for Agricultural Development, and World Food Programme.

Baluku, P., Mayoux, L., & Reemer, T. (2009). Balanced Trees Grow Richer Beans: Communityled Action Learning for Gender Justice in Uganda Coffee Value Chains. International Coffee Conference, Costa Rica.

Beaman, L., Chattopadhyay, R., Duflo, E., Pande, R., & Topalova, P. (2009). Powerful women: Does exposure reduce bias? The Quarterly Journal of Economics, 124(4), 1497–1540.

Blekking, J., Gatti, N., Waldman, K., Evans, T., & Baylis, K. (2021). The benefits and limitations of agricultural input cooperatives in Zambia. World Development, 146, 105616.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101.

Brody, C., De Hoop, T., Vojtkova, M., Warnock, R., Dunbar, M., Murthy, P., & Dworkin, S. 2015. "Economic Self-Help Group Programs for Improving Women's Empowerment: A Systematic Review." Campbell Systematic Reviews 11(1):1 – 182.

Brody, C., Hoop, T. D., Vojtkova, M., Warnock, R., Dunbar, M., Murthy, P., & Dworkin, S. L. (2017). Can self-help group programs improve women's empowerment? A systematic review. Journal of Development Effectiveness, 9(1), 15-40.

Burchi, F., & Vicari, S. (2014). To be or not to be a member of a primary co-operative in Brazil: any difference in household decision-making and gender equality?. Oxford Development Studies, 42(3), 343-364.

Catholic Relief Services (CRS). (2012). Considering Gender in Farmers' Groups: A case study from Madagascar. Catholic Relief Services.

Chhoeun, T., Sok, P., & Byrne, C. (2008). 'Citadel of Women': Strengthening female leadership in rural Cambodia. Gender & Development, 16(3), 535–547. https://doi.org/10.1080/13552070802465433

Cornwall, A. 2016. "Women's Empowerment: What Works?" Journal of International Development 28(3):342–59.

Ehlers, T. (2000). Silent looms: Women and production in a Guatemalan town. University of Texas Press.

FAO. 2023. The Status of Women in Agrifood Systems. FAO.

Farnworth, C. R., Stirling, C. M., Chinyophiro, A., Namakhoma, A., & Morahan, R. (2018). Exploring the potential of household methodologies to strengthen gender equality and improve smallholder livelihoods: Research in Malawi in maize-based systems. Journal of Arid Environments, 149, 53–61.

Farnworth, C. R., Sultana, N., Kantor, P., & Choudhury, A. (2015). Gender integration in aquaculture research and technology adoption processes: Lessons learned in Bangladesh. WorldFish. https://books.google.com/books?hl=en&lr=&id=1EV4CgAAQBAJ&oi=fnd&pg=PA4&dq=Gender+Integration+in+Aquaculture+Research+and+Technology+Adoption+Processes:+Lessons+Learned+in+Bangladesh.&ots=tr-Zg5Engv&sig=7ibctP_1iQnL8SEcOkU_lytG8rw

Ferguson, H., & Kepe, T. (2011). Agricultural cooperatives and social empowerment of women: a Ugandan case study. Development in Practice, 21(3), 421-429.

Fischer, E., & Qaim, M. (2012a). Linking smallholders to markets: determinants and impacts of farmer collective action in Kenya. World Development, 40, 1255 – 1268.

Fischer, E., & Qaim, M. (2012b). Gender, agricultural commercialization, and collective action in Kenya. Food Security, 4, 441 – 453.

Freire, P. (1972). Pedagogy of the Oppressed. 1968. Trans. Myra Bergman Ramos. New York: Herder, 167-191.

Goldín, L., Copeland, R., & Padilla-Medina, D. (2015). Behind Maya Doors: Gender violence, acceptance, and resistance in highland Guatemala. Gendered Perspectives on International Development: Working Papers, 306, 0_1.

Government of Guatemala. (2002). Ley y reglamento de los consejos de desarrollo urbano y rural. Secretaria de Coordinación Ejecutiva de la Presidencia.

Heckert, J., Leroy, J. L., Bliznashka, L., Olney, D., & Richter, S. (2018). Strengthening and evaluation the preventing malnutrition in children under 2 years of age approach: Guatemala follow-up report. Washington, DC: FHI, 360.

Heckert, J., & Paz, F. (2022, June 16). Smallholder Market Access Program, Guatemala: Draft evaluation study design for discussion.

Hendrickson, C. (1995). Weaving identities: Construction of dress and self in a highland Guatemala town. University of Texas Press.

ILO. (2021). Fact sheet: Employment and Migration, Guatemala 2021 (Labor Migration and Mobility Series). ILO.

International Food Policy Research Institute (IFPRI). (2012). Women's empowerment in agriculture index. International Food Policy Research Institute (IFPRI).

International Fund for Agriculture Development (IFAD). (2014). Household methodologies: Harnessing the family's potential for change. International Fund for Agriculture Development (IFAD).

Johnson, Nancy, Mysbah Balagamwala, Crossley Pinkstaff, Sophie Theis, Ruth Meinzen-Dick, and Agnes Quisumbing. 2018. "How Do Agricultural Development Projects Empower Women? Linking Strategies with Expected Outcomes." Journal of Gender, Agriculture and Food Security 3:1–19.

Jones, E., Smith, S., & Wills, C. (2012). Women producers and the benefits of collective forms of enterprise. Gender & Development, 20(1), 13–32. https://doi.org/10.1080/13552074.2012.663640

Kaaria, S., Osorio, M., Wagner, S., & Gallina, A. (2016). Rural women's participation in producer organizations: An analysis of the barriers that women face and strategies to foster equitable and effective participation. Journal of Gender, Agriculture and Food Security (Agri-Gender), 1(2), 148–167.

Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. Development and Change, 30(3), 435-464.

Kinati, W., Temple, E. C., Baker, D., & Najjar, D. (2023). Challenging structures: Gender transformative interventions by livestock CRP in Ethiopia. Frontiers in Sustainable Food Systems. https://cgspace.cgiar.org/handle/10568/131818

Lecoutere, E. (2017). The impact of agricultural co-operatives on women's empowerment: Evidence from Uganda. Journal of Co-operative Organization and Management, 5(1), 14-27.

Lecoutere, E., & Chu, L. (2024). Supporting women's empowerment by changing intra-household decision-making: A mixed-methods analysis of a field experiment in rural south-west Tanzania. Development Policy Review, e12758. https://doi.org/10.1111/dpr.12758

Lemma, M., Kinati, W., Tigabie, A., & Mekonnen, M. (2021). Community conversations empower women and transform gender relations in rural Ethiopia. SmaRT Ethiopia Brief. https://cgspace.cgiar.org/bitstream/handle/10568/117273/SmaRT_Ethiopia_gender.pdf

Lukes, R. J., & Collins, R. D. (1974). Immunologic characterization of human malignant lymphomas. Cancer, 34(S8), 1488-1503.

Malapit, H., Heckert, J., Ygué Adegbola, P., Eissler, S., Faas, S., Gantoli, G., Kalagho, K., Quisumbing, A., Martinez, E., Meinzen-Dick, R., Mswero, G., Myers, E., Mzungu, D., Seymour, G., Ragasa, C., Rubin, D., Pereira, A., Pinkstaff, C., Tauseef, S., & pro-WEAI+MI Study Team. (2023). Measuring empowerment across the value chain: The evolution of the project-level Women's Empowerment Index for Market Inclusion (pro-WEAI+MI). International Food Policy Research Institute (IFPRI).

Malapit, H. J., Heckert, J., Scott, J., Padmaja, R., & Quisumbing, A. R. (2021). Nutrition-sensitive agriculture for gender equality. Advancing Gender Equality through Agricultural and Environmental Research: Past, Present, and Future, 189.

Malapit, H. J., Meinzen-Dick, R. S., Quisumbing, A. R., & Zseleczky, L. (2020). Women: Transforming food systems for empowerment and equity. IFPRI Book Chapters, 36–45.

Mangheni, M. N., Tufan, H. A., Boonabana, B., Musiimenta, P., Miiro, R., & Njuki, J. (2019). Building gender research capacity for non-specialists: Lessons and best practices from gender short courses for agricultural researchers in sub-Saharan Africa. In Gender and practice: Knowledge, policy, organizations (Vol. 28, pp. 99–118). Emerald Publishing Limited. https://www.emerald.com/insight/content/doi/10.1108/S1529-212620190000028006/full/www.alineimpact.com

Meinzen-Dick, Ruth, Monica DiGregorio, and Nancy McCarthy. 2004. “Methods for Studying Collective Action in Rural Development.” Agricultural Systems 82(3):197–214.

MSPAS/Guatemala, M. de S. P. y A. S.-, INE/Guatemala, I. N. de E.-, Segeplán/Guatemala, S. de P. y P. del la P.-, & International, I. C. F. (2017). Encuesta nacional de salud materno infantil 2014-2015: Informe final. https://dhsprogram.com/publications/publication-FR318-DHS-Final-Reports.cfm

Mudege, N. N., Nyekanyeka, T., Kapalasa, E., Chevo, T., & Demo, P. (2015). Understanding collective action and women’s empowerment in potato farmer groups in Ntcheu and Dedza in Malawi. Journal of Rural Studies, 42, 91–101.

Niewoehner-Green, J., Stedman, N., Galindo, S., Russo, S., Carter, H., & Colverson, K. (2019). The influence of gender on rural Honduran Women’s participation and leadership in community groups. Journal of International Agricultural and Extension Education, 26(2), 48–63.

Njuki, J. (2016). Practical notes: Critical elements for integrating gender in agricultural research and development projects and programs. Journal of Gender Agriculture and Food Security, 1(3), 104–108.

Nordhagen, S., Tort, C. B., Kes, A., & Winograd, L. (2017). Nurturing Connections? Evaluating the impact of a women’s empowerment curriculum in Cote d’Ivoire. ICRW working paper. Washington, DC, USA: International Center for Research ….

Oberhauser, A. M., & Pratt, A. (2004). Women’s collective economic strategies and political transformation in rural South Africa. Gender, Place & Culture, 11(2), 209–228. https://doi.org/10.1080/0966369042000218464

Ofori, E., Sampson, G. S., & Vipham, J. (2019). The effects of agricultural cooperatives on smallholder livelihoods and agricultural performance in Cambodia. Natural Resources Forum (Vol. 43, No. 4, pp. 218-229). Oxford, UK: Blackwell Publishing Ltd.

Organista, K. C. (2007). Solving Latino psychosocial and health problems: Theory, practice, and populations. John Wiley & Sons. https://books.google.com/books?hl=en&lr=&id=O8k0rWytD28C&oi=fnd&pg=PR7&dq=Solving+Latino+psychosocial+and+health+problems:+Theory,+practice,+and+populations&ots=t14hRsCulR&sig=pzLE7Sy4J-6DG1BUfn7wdl9bRh0

Pyburn, R., Slavchevska, V., and Kruijssen, F. 2023. “Gender Dynamics in Agrifood Value Chains: Advances in Research and Practice over the Last Decade.” Global Food Security 39:100721. doi: 10.1016/j.gfs.2023.100721.

Quisumbing, A., Heckert, J., Faas, S., Ramani, G., Raghunathan, K., Malapit, H., & the pro-WEAI for Market Inclusion Study Team. (2021). Women’s empowerment and gender equality in agricultural value chains: Evidence from four countries in Asia and Africa. Food Security, 13(5), 1101–1124.

Rowlands, J. (1995). Empowerment examined. Development in Practice, 5(2), 101-107.

Rowlands, J. (1997). Questioning Empowerment: Working with women in Honduras. Oxfam.

Rubin, D., & Manfre, C. (2014). Promoting Gender-Equitable Agricultural Value Chains: Issues, Opportunities, and Next Steps. In A. R. Quisumbing, R. Meinzen-Dick, T. L. Raney, A. Croppenstedt, J. A. Behrman, & A. Peterman (Eds.), Gender in Agriculture: Closing the Knowledge Gap (pp. 287–313). Springer Netherlands. https://doi.org/10.1007/978-94-017-8616-4_12

Serra, R., & Davidson, K. A. (2021). Selling together: The benefits of cooperatives to women honey producers in Ethiopia. Journal of Agricultural Economics, 72(1), 202-223.

UN Women. (2023). Guatemala. UN Women – Americas and the Caribbean. https://lac.unwomen.org/en/donde-estamos/guatemala

USAID. (2023, November 13). Indigenous Peoples | Guatemala. U.S. Agency for International Development. https://www.usaid.gov/guatemala/our-approach/indigenous-peoples

Verhofstadt, E., & Maertens, M. (2015). Can agricultural cooperatives reduce poverty? Heterogeneous impact of cooperative membership on farmers' welfare in Rwanda. Applied Economic Perspectives and Policy, 37(1), 86-106.

Wehr, H., Chary, A., Webb, M. F., & Rohloff, P. (2014). Implications of gender and household roles in Indigenous Maya communities in Guatemala for child nutrition interventions. International Journal of Indigenous Health, 10(1), 100–113.

Woldu, T., & Tadesse, F. (2015). Women’s participation in agricultural cooperatives in Ethiopia. https://ageconsearch.umn.edu/record/210967/graphy

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