INTERIM REPORT ON GRANTS UNDER THE ENRM PROJECT IN MALAWI

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ACRONYMS LIST

AEC	Area Extension Committee
AEDO	Agriculture Extension Development Officer
ACPC	Area Civil Protection Committee
ADC	Area Development Committee
CA	Conservation Agriculture
CBO	Community Based Organization
CCJP	Catholic Commission for Justice and Peace
CD	Community Development
DADO	District Agriculture Development Officer
DEC	District Executive Committee
DAECC	District Agricultural Extension Coordination Committee
DC	District Chamber/Council
DRR	Disaster Risk Reduction
ENRM	Environment and Natural Resources Management
FAW	Fall Armyworms
FISD	Foundation for Irrigation and Sustainable Development
GBV	Gender-Based Violence
GVH	Group Village Headman
Ha.	Hectare
IGA	Income Generating Activities
MCA-Malawi	Millennium Challenge Account Malawi
MCC	Millennium Challenge Corporation
MWK	Malawi Kwacha

M&E	Monitoring and Evaluation
NGO	Non-Governmental Organization
REFLECT	Regenerated Freirean Literacy through Empowering Community Techniques
SGEF	Social and Gender Enhancement Fund
SLM	Soil and Land Management
TA	Traditional Authority
ToT	Training of Trainers
TSP	Training Support Partners
VCPC	Village Civil Protection Committee
VDC	Village Development Committee
VFAC	Village Forest Area Committee
VH	Village Headman
VNRMC	Village Natural Resources Management Committee
VSL	Village Savings and Loans
WOLREC	Women's Legal Resources Centre

EXECUTIVE SUMMARY

A. Introduction and overview of the ENRM project

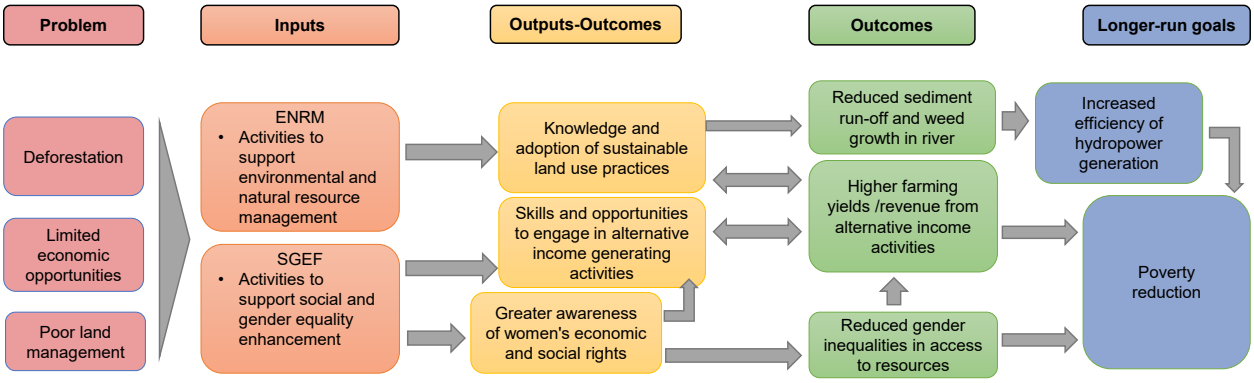
Malawi is unique in generating around 98 percent of its electricity from hydropower, mainly from three sites along the Shire River. However, Malawi's reliance on hydropower makes it susceptible to environmental changes that inhibit power generation. Changing climate and land use practices have caused increased sedimentation in the head ponds of the power plants, reducing water levels, and extensive weed growth, which clogs plant turbines, limiting plant utilization.

To address this problem, the Millennium Challenge Corporation (MCC) financed and the Millennium Challenge Account-Malawi (MCA-Malawi) implemented a five-year $350.7 million energy-sector compact that commenced on September 20, 2013 and ended on September 20, 2018. The Environmental and Natural Resources Management (ENRM) project, a part of the compact, addressed weed and sediment management and land use practices along the Shire River. As part of the ENRM project, MCA-Malawi created a grant facility to provide funding and technical support to 11 non-governmental organizations (NGOs) to carry out two activities:

- The **ENRM activity** provided funding to reduce soil erosion in high-priority catchment areas by improving land management practices, including forest management, river bank protection, conservation agriculture, and crop diversification.
- The **Social and Gender Enhancement Fund (SGEF) activity** complemented the ENRM activity and was aimed at helping women and vulnerable groups improve their economic and social rights and their decision-making power within their households and communities. SGEF also worked with men who have limited control of resources in a matrilineal society.

As shown in the program logic for the ENRM and SGEF grants (Figure ES.1), all five grants had a common underlying program logic. Grants generally sought to address several problems in the intervention areas, including deforestation due to charcoal production, limited economic opportunities for households, and poor land management practices that resulted in high levels of soil erosion. Grants implemented various activities **(inputs)**, such as trainings on soil conservation and sustainable land management practices; trainings on leadership, gender equality, and business management; and establishment of village savings and loans (VSL) groups to support alternative income-generating activities. Including gender equality components was designed to ensure that women as well as men could use these skills to change land use practices, engage in alternative income-generating activities to reduce pressure on natural resources, and be more aware of women's economic and social rights within their communities (**outputs**).

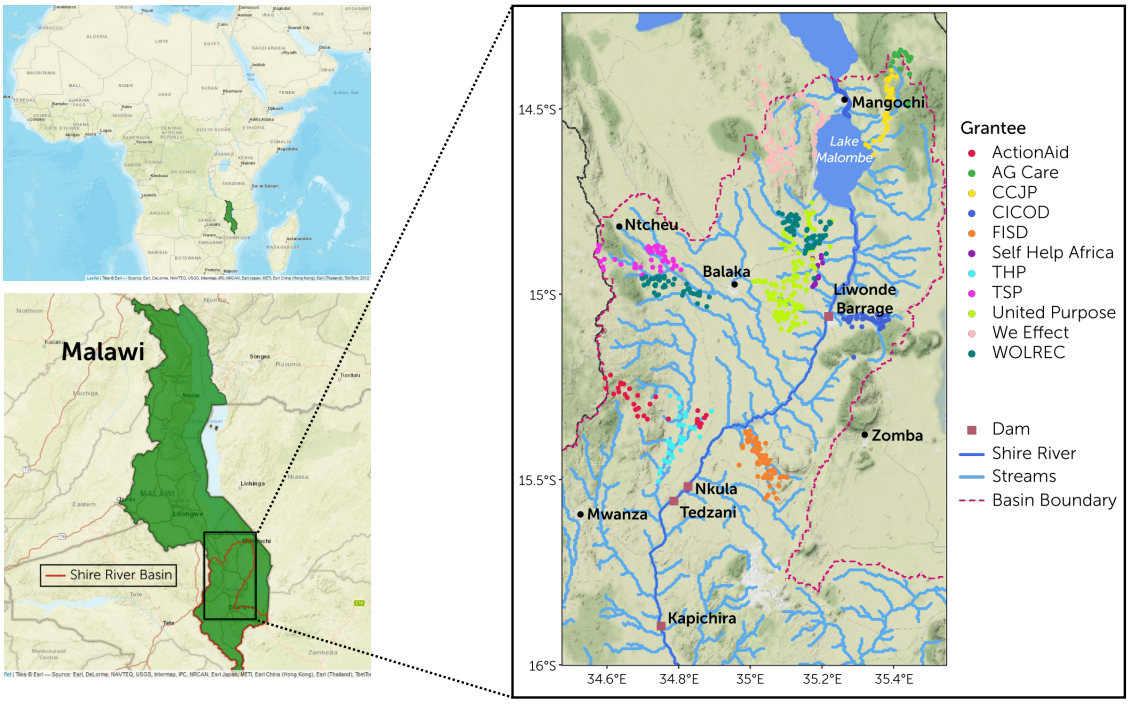
Figure ES.1. Program logic for ENRM and SGEF grants



The three main intended **outcomes** for the grants were (1) reduced sediment runoff and weed growth through adoption of more sustainable land use practices, (2) higher farming yields and additional revenue from alternative income-generating activities through improvements to farming practices and diversification of economic activities, and (3) reduced gender inequalities in access to resources through increased awareness of women's economic and social rights. This increase in access to resources for women is expected to also increase household income. Between outputs and outcomes, there are also feedback loops (indicated with double-sided arrows) that multiply positive results on crop yields and revenue. In the **longer run**, these interventions intended to bring about (1) increased efficiency of hydropower generation (through reduction of sediment runoff and weed growth in the Shire) and (2) reduced poverty through higher farming yields, revenue from alternative income activities, and increased gender equality in access to resources.

The grantees conducted activities in 771 villages encompassing 22 Traditional Authorities (TAs). Each grant operated in 20 to 127 villages and one to three TAs (MCC 2018). Figure ES.2 shows the location of each intervention village in the upper and middle Shire River Basin region, color coded by grantee. The dark blue line shows the Shire River and the lighter blue lines show the streams that feed into it.

Figure ES.2. Map of ENRM and SGEF grant activity locations



MCC contracted Mathematica to conduct an independent evaluation of the overall ENRM project. This report focuses on the evaluation of the ENRM and SGEF grants, one aspect of the ENRM project. A companion volume—Coen et al. (2019) contains findings from the evaluation of four other aspects of the ENRM project—the weed and sediment management activity, the grant facility activity, the environmental trust, and the ENRM project as a whole. This volume presents interim findings from case studies of five of the grants based on data collected through the close of the compact.

B. Evaluation overview

We used the following criteria to select five grants for the case studies: (1) strength of implementation, (2) geographical dispersion, (3) presence of ENRM and SGEF activities, (4) distinct approaches, and (5) strong intervention presence. In consultation with MCC and MCA-Malawi, we identified the following grants that met the selection criteria for our evaluation: Catholic Commission for Justice and Peace (CCJP), Foundation for Irrigation and Sustainable Development (FISD), Training Support for Partners (TSP), United Purpose (UP), and the Women's Legal Resources Centre (WOLREC). The strength of implementation criterion was important for this evaluation to assess the potential of the grants under the best-case scenarios—that is, to learn under real conditions what types of activities can work and don't work, and why. This responds to the objective of the case studies to provide a source of learning related to well-implemented grants, particularly to inform the ENRM Trust; the companion volume (Coen et al. 2019) covers the accountability objective of evaluating the overall grant facility. Therefore, for the five case studies included in this evaluation, we collected data in villages where activities were well implemented, villagers were engaged, and there were strong partnerships. Table ES.1 summarizes the activities, grant size, and intervention location for the five case study grants.

Table ES.1. Overview of case study grants

Implementing organization (district)	Grant size (intervention villages)	Summary of activities
TSP (Ntcheu)	$438,701 (107 villages)	i. Conduct trainings to sensitize community about relationship between ENRM and power generation ii. Conduct training on business management, including beekeeping iii. Provide training on SLM practices, including tree planting, contour ridge construction, vetiver grass planting, climate smart technologies, and clan-based forest management iv. Establish VSL groups to support alternative income-generating activities v. Establish adult and child literacy classes vi. Conduct meetings to sensitize community members about gender equality vii. Train women and local leaders on advocacy and lobbying
UP (Balaka)	$836,064 (72 villages)	i. Provide seeds for crop diversification ii. Conduct trainings on SLM practices, including crop diversification, tree planting and management, and vetiver grass planting iii. Establish adult literacy classes using the REFLECT Methodology[1] iv. Conduct leadership and assertiveness trainings v. Conduct meetings to sensitize community members about equal gender relations viii. Establish ENRM-sensitive VSL groups to support alternative income-generating activities ix. Promote women's effective participation and decision making influence at household and community levels
FISD (Blantyre)	$718,201 (113 villages)	i. Provide trainings on sustainable land use practices, including tree planting, forest management, manure and mulch production, and gully and swale construction ii. Conduct trainings on business management and leadership iii. Establish a solar-powered irrigation scheme iv. Advocate for sustainable land use practices at village government meetings v. Conduct meetings to sensitize community members about gender equality vi. Establish VSL groups to support alternative income-generating activities
CCJP (Mangochi)	$363,084 (31 villages)	i. Conduct trainings on sustainable land use practices, including tree planting, fruit propagation, and vetiver grass planting ii. Lobby local leaders to increase women's involvement in agricultural decision making iii. Hold community trainings for women on leadership, business and marketing skills, livestock production, beekeeping, and household planning and budgeting iv. Establish VSL groups and adult literacy and math schools v. Conduct trainings to sensitize community members about gender equality
WOLREC (Ntcheu and Balaka)	$442,461 (81 villages)	i. Provide trainings on sustainable land use practices, including elephant grass planting, tree planting, and forest management ii. Establish community groups to discuss improved gender equality iii. Conduct trainings with women on leadership iv. Conduct meetings/trainings to sensitize community members/leaders on gender equality. v. Establish adult literacy classes vi. Establish VSL groups to support alternative income-generating activities

Sources: Grant final reports, MCA-Malawi grant closure forms, MCC 2018, and MCA-Malawi 2016.

[1] REFLECT methodology aims to bring community members together to identify issues of importance to the group and identify how to ameliorate them. Principles include ensuring all members' voices can be heard equally and that

participants continually analyze dynamics of power within their communities. (ActionAid 2017; Reflect 2009). Education comes when the group decides it wants to improve members' skills—in writing, math, business, or other content areas—to work on their solution, such as writing to draft petitions or math skills to run the business side of a community garden.

TSP = Training Support for Partners; UP = United Purpose; FISD = Foundation for Irrigation and Sustainable Development; CCJP = Catholic Commission for Justice and Peace; WOLREC = the Women's Legal Resources Centre.

We evaluated the five selected ENRM and SGEF grants by using a case study approach that encompassed both primary qualitative data collection and a review of grant reports and MCA-Malawi grant evaluations. A case study allows for an in-depth examination of each grant's implementation, its ENRM and SGEF outcomes, and the prospects for sustaining the grant. This process provides rich context both for understanding results and identifying key mechanisms or factors that are driving them. Using the findings from the case studies, we conducted a cross-case comparative analysis to draw broader conclusions about which types of activities and training approaches are most effective. The cross-case analysis compares outcomes across the five grants' case studies and illustrates common themes and lessons that emerged, thus identifying the activities that are most or least effective.

Through the five grant case studies and cross-case comparison, we answer the following research questions:

Table ES.2. Research questions

Implementation

1. Which intervention was implemented and what was the program logic underlying it?
2. How was the program implemented?
   a. How did implementation change from what was planned, and why?
   b. Which implementation factors supported or hindered the completion of the intervention?

Effects of ENRM activities

3. To what extent did the intervention lead to adoption of conservation agriculture and land management practices by farmers and communities?
   a. Which land management practices are more readily adopted by farmers and communities, and why? Are there differences in adoption between male and female farmers?
   b. Is it possible to differentiate between effective training approaches and practices that farmers are predisposed to adopt? If yes, are certain training methods associated with greater farmer adoption? Are different training methods associated with better results for male and female farmers?
   c. What was the relationship, if any, between ease of adoption, farmers' perceptions of effectiveness, and farmers' tendency to adopt different practices?

Effects of SGEF activities

4. To what extent did the intervention affect gender roles in the household and communities?
   a. To what extent did the intervention lead to greater joint household decision making regarding land and natural resource management and household finances?
   b. To what extent did the intervention lead to changes in division of labor on the farm and at home?
   c. To what extent did the intervention lead to leadership opportunities for women? To what extent did the intervention promote female-headed household involvement in community decision-making?
5. Were grants that focused more on ENRM or SGEF activities more or less effective than grants that targeted both types of activities?

Sustainability

6. What are stakeholders' perceptions of the sustainability of grant activities to improve sustainable land management and address social and gender barriers? What factors were driving beneficiaries to continue to adopt SLM practices?

For each case study, we collected a large array of qualitative data through key informant interviews and focus groups with grantee staff, community leaders in the intervention area, grant beneficiaries, district government officials, and MCA-Malawi and MCC staff. We also conducted direct observation of the intervention areas as well as an extensive grant facility document review. Using coded interview transcripts, we conducted thematic analysis to help us identify common and conflicting viewpoints and data triangulation to test for consistency and discrepancies in findings across multiple data sources. We implemented common analytical frameworks across cases to assess implementation effectiveness, ENRM and SGEF outcomes, and perceptions of sustainability.

C. Summary of findings

Our cross-case analysis provided findings based on the data from all five case studies. The main findings of the cross-case analysis for the implementation research questions (RQs) show that in general, grants were successful at implementing their planned activities and exhibited some common implementation characteristics. In particular, grants sought community buy-in and partnered with government agencies and local leaders to execute activities in accordance with the expectations of the grant facility. All grants successfully used REFLECT (Regenerated Freirean Literacy through Empowering Community Techniques) circles to identify priorities, action steps and/or for implementation. All grants also used participatory, hands-on training methods and demonstration, which were well appreciated by community members. Grantees were also responsive to donor and beneficiary needs, adapting implementation plans to improve outcomes.

Cross-case analysis key findings for Implementation (RQs 1 and 2)

- All five case study grants were effectively established in their implementation areas through community buy-in and in partnership with government agencies and local leaders.
- All five grants successfully used REFLECT circles to identify priorities, action steps and/or for implementation.
- All five grants used participatory, hands-on training methods and demonstration, which were well appreciated by community members.
- Overall, the implementation of the grant activities was largely successful in achieving the outputs they were expected to deliver.
- Grantees were responsive to donor and beneficiary needs, adapting implementation plans to improve outcomes. There were a few changes that were due to grantees' inability to implement as planned.

The main findings of the cross-case analysis regarding the effects of the ENRM activities show widespread adoption of land management practices by those who participated in the activities. Participants emphasized that they liked the participatory, hands-on training and use of demonstrations that were generally common across grantees. Participants reported that the visible benefits of practices motivated them to adopt those practices. The grants also clearly engaged women in the ENRM activities. These findings show that at the end of the compact, grant outputs were achieved, and outcomes envisioned for the grant were emerging, including knowledge and adoption of sustainable land use practices, higher yields, and some level of gender equity in the inclusion of women.

Cross-case analysis key findings for ENRM activities (RQ 3)

- Widespread adoption of conservation agriculture and land management practices by those who participated in the activities.
- There was clear engagement of women in ENRM activities.
- Visible benefits of practices motivated adoption.
- Participants like the participatory, hands-on training and use of demonstrations.

The main findings of the cross-case analysis regarding the effects of the SGEF activities found that many of the SGEF activities were popular and successful with participants. VSLs and REFLECT circles were particularly effective structures for change. While we did find that resistance remains within communities for changing gender roles, we also found that multi-faceted SGEF activities[1] were effective at addressing gender issues in household decision-making, division of labor, and community leadership opportunities. These findings show that at the end of implementation of the grants, outcomes envisioned for the grant were emerging, including greater knowledge of women's economic and social rights, and skills developed to use in alternate income generating activities.

Even though only one of the five case study grants was designed to integrate both ENRM and SGEF activities, by the end of the compact all grants had integrated both ENRM and SGEF activities into their interventions. Grantees found doing so improved their effectiveness. Adding SGEF activities to ENRM activities benefited the ENRM objectives through getting women involved and through using SGEF activities to facilitate promoted ENRM practices. Adding ENRM activities was not as effective in helping grantees reach gender equity goals, but did provide women opportunities for involvement in community activities and helped community members see women's value in the ENRM realm.

[1] SGEF activities often included multiple prongs, such as REFLECT circles that sensitized men to gender issues, built assertiveness skills of women, and ran coeducational budgeting trainings for spouses. VSLs provided leadership opportunities to women, provided opportunities of alternative income sources, and education on numeracy.

Cross-case analysis key findings on effects of SGEF activities (RQ 4 and 5)

- VSLs were popular and successful.
- REFLECT Circles and VSLs were effective structures for change.
- Increases in joint household decision-making, more equitable division of labor, more leadership opportunities for women and more participation for female household heads in community decision-making.
- Resistance to changes in gender roles remains.
- Grantees found integrating both ENRM and SGEF activities was more effective than targeting only one type of activity.
- Adding SGEF activities to ENRM activities benefited the ENRM objectives more than ENRM activities helped grantees reach gender equity goals.

The key findings of the cross-case analysis regarding sustainability showed that although stakeholders expressed confidence that the grant activities they participated in would be sustained, it is too early to assess whether the grants affected longer term change in the communities. Stakeholders noted that collaboration with local government agencies, local leaders, and trained farmers will support activity sustainability. They also noted that economic and environmental benefits from adopting activities is a facilitator of sustainability. Current adoption of activities by participants bodes well, as does the adoption of activities by other community members who did not initially participate in grant activities after seeing how their fellow community members had benefited from them. However, participants also noted they lacked funding and materials to continue some of the activities.

Cross-case analysis key findings on sustainability (RQ 6)

- Stakeholders express confidence that the grant activities they participated in would be sustained.
- Benefits experienced from adoption is a facilitator of sustainability.
- Collaboration with local government agencies, local leaders, and trained farmers will support sustainability.
- Adoption of activities by participants as well as some non-participants provide support for sustainability
- Lack of funding and materials was most commonly reported risk.

Table ES.3 presents key findings for each individual case study on grant implementation, effects of ENRM and SGEF activities, and prospects for sustainability.

Table ES.3. Summary of individual case study findings

Findings category	Summary of findings
TSP case study	
Implementation (RQs 1 and 2)	• TSP implemented most of the ENRM and SGEF activities as planned, but the short timeline and limited budget for a large implementation area did not allow all the intended Group Village Headman areas (GVHs) to be covered.
Findings on ENRM activities (RQ 3)	• Stakeholders reported widespread adoption among participants and as well as spillover among non-participants of ENRM practices, including establishment of clan and village forest areas and tree nurseries, and implementation of sustainable land management practices. • Adoption was not driven by characteristics of the ENRM practices, but by the visible environmental and economic benefits of adoption, such as reduced soil erosion from fields and increased yields.
Findings on SGEF activities (RQ 4 and 5)	• Having women be ambassadors in implementing activities and promoting their participation in VSL groups and REFLECT circles have apparently had positive implications for women in household decision making, division of household labor, and, especially, leadership opportunities. • Making significant changes in gender roles was difficult in the short time frame for implementation, given that gender roles are deeply rooted in the area's cultural norms. While changes in policies (such as more equitable representation of women in leadership roles) are more apparent in the short time frame, changes in a community's cultural norms, which determine gender roles, for both men and women are likely to take generations.
Sustainability (RQ 6)	• TSP's reliance on women ambassadors during implementation created a strong vehicle for project sustainability. • Collaboration with government officials and community leaders on activity workshops and trainings could also facilitate the continuation of project activities through various mechanisms. However, lack of government staff to review and approve drafted forest management plans and bylaws is a risk for sustainability.
UP case study	
Implementation (RQs 1 and 2)	• UP implemented most of its ENRM and SGEF activities as planned. The few changes included adding more REFLECT circles in response to high demand, using lead farmers to deliver trainings instead of using village extension multipliers, and switching from an efficient charcoal production pilot to inexpensive biogas digesters.
Findings on ENRM activities (RQ 3)	• Both men and women participated, but most participants were women, although this was not strictly intended. • Most beneficiaries agreed that the majority of people who attended trainings adopted ENRM activities. • The biggest reason given for adopting ENRM activities was understanding their benefits and realizing how they could help transform livelihoods. There was some resistance at first, however, and some beneficiaries only adopted activities after they saw their friends or neighbors benefiting from them. • Having local lead farmers who encouraged others to participate, demonstrated the activities, and answered questions was instrumental in validating benefits and getting more people to adopt activities. • One of the most common reasons given for not adopting the activities was a lack of materials or money to buy materials or hire labor to implement activities. Another common reason was that some activities were seen as too labor-intensive, such as making contour bands and closing up gullies.

Findings category	Summary of findings
Findings on SGEF activities (RQ 4 and 5)	• SGEF activities and gender concepts were widely adopted by participants. Village banks were the most commonly adopted activity, with men, women, and even youth participating. Many women generated income through, for example, VSLs and business activities. Understanding the benefits these activities could bring, especially financially, was the biggest motivator for adopting these activities. • Participants report that there is now more joint decision making in households than there was before the grant activities, especially on finances, farm work, harvesting, and participation in community activities. As a result of trainings and activities, more people see women as capable of making good decisions for the family. • There is a more egalitarian division of labor in many families, with both men and women taking part in household activities, and children are being taught different norms. Before the grant interventions, certain activities at home were traditionally regarded as women's activities. However, those concepts were challenged after beneficiaries attended trainings and learned that men and women should share responsibilities equally. • There is a more equal distribution of men and women in leadership positions than there was in the past due to a change in mindsets regarding the role of women in the community.
Sustainability (RQ 6)	• Beneficiaries were optimistic about continuing most activities because they find the practices to be beneficial and impactful. Some of them said that even though they have not experienced the benefits yet, they are optimistic.
FISD case study	
Implementation (RQs 1 and 2)	• FISD implemented most of its ENRM and SGEF activities as planned. This included a solar-powered irrigation scheme, tree planting, soil conservation practices, village savings and loan (VSL) groups, and REFLECT circles. However, the implementation's effectiveness varied by area. • The FISD grant implemented a unique activity centered on a 60-hectare solar-powered irrigation scheme to benefit 600 households. Even though FISD was experienced in establishing such schemes, it struggled to set up the legal frameworks and institutional structures necessary for the activity's long-term success. • In the past, FISD had paid farmers to complete ENRM tasks in one part of the intervention area, which limited those farmers' interest and motivation in the unpaid grant activities. • Even though FISD had not conducted many SGEF activities before, it found those activities, particularly VSLs, to be popular with the community and complementary to its ENRM activities. Consequently, FISD scaled up its SGEF activities during the grant period.
Findings on ENRM activities (RQ 3)	• Stakeholders reported generally widespread adoption of ENRM practices, such as tree planting and soil conservation practices, particularly in the area connected to the irrigation scheme. • Adoption did not seem to differ according to which practice was assessed, but was driven by the tangible environmental and economic benefits of the practices.
Findings on SGEF activities (RQ 4 and 5)	• VSLs and REFLECT circles seemed to bring about positive changes for women, giving them a bigger role in household decision making and more community leadership opportunities. • Changing perceptions about the genders was difficult given the short length of the activities. FISD's activities did not focus on changing the division of labor within a household.

Findings category	Summary of findings
Sustainability (RQ 6)	• FISD's close collaboration with district government officials and its targeted trainings for community leaders on the SGEF and ENRM activities created a supportive environment for the ENRM and SGEF practices to continue after the grant activities end, but whether they actually will be sustained remains to be seen. • Much of the land connected to the irrigation scheme remains idle and it is unclear if the necessary institutional structures are in place for farmers to embrace the scheme and cultivate the land longer term.
CCJP case study	
Implementation (RQs 1 and 2)	• CCJP implemented most of its grant activities as planned. This included natural resource management training, tree planting, resource mapping, REFLECT circles, gender equality and women's empowerment training, household planning and budgeting training, VSL groups, business management and marketing training, and a livestock pass-on scheme. • The largest changes in CCJP's planned grant activities involved adding ENRM activities, adjusting and planting more trees than it originally planned on, adding REFLECT circles to address community demand, and creating bylaws for the livestock pass-on activity.
Findings on ENRM activities (RQ 3)	• Both men and women participated in ENRM activities, but the majority of the participants were women. • Most beneficiaries agreed that the majority of people who attended the trainings adopted ENRM activities. • The biggest reason for adopting the ENRM activities was that participants understood their benefits and how the activities could help transform their livelihoods. Some beneficiaries adopted the activities once they saw the benefits for their friends or neighbors. • One of the most common reasons not to adopt the activities was a lack of understanding how the activities could benefit participants. Another common reason was reported to be the participants' resistance to change. • Demonstrations and hands-on training facilitated adoption.
Findings on SGEF activities (RQ 4 and 5)	• SGEF activities and gender concepts were widely adopted among participants. More women than men participated in these activities and most of those who participated adopted the activities and gender concepts. • Many women participated in VSLs and became involved in various income-generating activities. • The biggest motivator in adopting activities was participants' understanding the benefits these activities could bring for their livelihoods, especially the financial benefits from VSLs and business activities. • There is now more joint decision making in households than before, especially on harvest, budgeting, and participation in community activities. Women are now seen as capable of making good decisions in their families and in their communities. Budgeting was an activity adopted by many respondents, and many mentioned that learning about budgeting during the trainings helped increase communication between men and women at home. • There is now a more equitable division of labor in homes and on farms, but there are still men who refuse to take part in household tasks, viewing them as being for women only. Trainings emphasized the importance of working together and that both men and women should share ideas and participate in activities equally. Men also reported appreciating the economic benefits of working together with women. • More women are taking up leadership positions and participating in community activities than in the past. The trainings brought awareness that women can also be effective leaders and should be considered for leadership positions equally (something many respondents mentioned that they didn't consider before and thought that only men could do).

Findings category	Summary of findings
Sustainability (RQ 6)	• Beneficiaries were optimistic that they would continue practicing most of the activities because of their benefits and the positive impact on their lives.
WOLREC case study	
Implementation (RQs 1 and 2)	• WOLREC implemented most of its grant activities as planned. • WOLREC used REFLECT circles as its main implementing structure to gain community buy-in and participation for its wide-ranging ENRM and SGEF activities—adult literacy classes, gender equality trainings, village savings and loans (VSLs), tree planting, livestock management, and beekeeping. • WOLREC planned to only implement SGEF activities. In the second year of implementation, it added ENRM activities in response to beneficiaries' needs.
Findings on ENRM activities (RQ 3)	• Most participants adopted the ENRM interventions by the end of the grant; there was some spillover to nonparticipants, who began adopting several practices after seeing how well they worked out for participants. • The most readily adopted interventions were planting trees, mulching, and making homemade fertilizer. Beneficiaries reported that understanding the activities' objectives from the beginning, taking ownership of them, and seeing the benefits firsthand motivated them to adopt the interventions. Both men and women adopted the interventions, but women were at the forefront. • Demonstrations and participatory training methods stood out as the most effective learning modes for both men and women, but a few interview and focus group respondents noted that women in female-only training groups were more engaged with the training than women in mixed training groups.
Findings on SGEF activities (RQ 4 and 5)	• Respondents reported a clear change in household gender roles. Women said they were participating more in household decision making, and there was a more equal division of labor. Several male beneficiaries said they learned about the benefits of communication and started to include their wives in the financial and other household decision making processes, with benefits for the whole family as a result. Several respondents also noted that women stopped fearing confronting their husbands about money, voicing their concerns, and offering their opinions. • Beneficiaries said the number of women in leadership positions in the community increased during the activity implementation time. Many female beneficiaries said that the trainings taught women not to look down on themselves, increased their confidence, and encouraged them to take leadership opportunities. Leadership trainings were complemented by other grant activities, such as adult literacy centers and VSLs, that gave women the skills and resources they needed for leadership. • Female-headed households reported having more economic opportunities available to them after they participated in grant activities.
Sustainability (RQ 6)	• Most respondents were confident that the activities would be sustained, but that was just as the grant activities ended, when WOLREC was still present, and respondents were still enthusiastic about the interventions. The conditions most likely to support sustainability are that beneficiaries understood the importance of taking care of natural resources and the environment, had already adopted the activities, and had experienced the direct benefits to their livelihoods.

D. Conclusions

By comparing findings across case studies, we identified common lessons learned for grant implementation, effects of ENRM and SGEF activities, and prospects for sustaining grant outcomes. Through our analysis, four key conclusions emerged:

- ***Aligning the participants' private economic incentives with environmental public goods and getting local buy-in are critical for successfully implementing and promoting adoption of ENRM activities in rural areas.*** The activities implemented by all five grantees relied on

ensuring the participants experience tangible economic incentives from adopting environmentally sustainable land management practices. In addition, each grantee relied on buy-in from local leaders, government agencies, and community members to successfully implement its planned activities. It would be important to incorporate these key implementation facilitators in the design phase of any future grant-based program.

- ***In developing grants that promote sustainable land management, it's useful to consider the seasonal nature of agricultural production.*** The ENRM and SGEF grants funded by MCA-Malawi were implemented over a three-year period (from July 2015 through June 2018). Although a three-year implementation period might be considered long for donor-funded grants, over 90 percent of agricultural production in much of rural Malawi is based on a single crop each year. Three years only affords a maximum of three crop cycles to demonstrate a variety of sustainable land management practices across a population that contains a mix of enthusiasts and skeptics when it comes to adoption of new practices. Keeping the crop cycle in mind is important so that direct benefits of sustainable land management practices can be demonstrated early on. This may necessitate more intensive staffing to implement grant activities in the first year.
- ***It is important for policymakers and practitioners to recognize that intentional programming of activities designed to affect gender equity was critical for the emerging changes found in these case studies***. It is generally well recognized in the literature that empowering women by changing intra-household decision making processes, overcoming traditional division of labor between the genders, and giving women leadership opportunities usually follows a complex and lengthy path (Goldman and Little 2015, Mahmud, Shah, and Becker 2012). It still appears that all five grantees have made some difference in increasing women's participation in intra-household decisions on resource allocation, bringing about more equitable divisions of labor in both household and farm labor, and creating opportunities for women to take leadership roles in their communities. Although some resistance to change persists, and we will have to see how many of the improvements are sustained in the longer term, we can note that if policymakers are interested in making a difference in this outcome, it is important to design interventions specifically (but not necessarily exclusively) to improve gender equity.
- ***The success of ENRM interventions was augmented by the inclusion of SGEF activities in all five case studies.*** While working toward gender equity is a valuable goal in and of itself, these cases reinforce the literature showing that inclusion of SGEF activities can also be a means to achieving better results for ENRM activities. Both women and men are intimately involved in using, caring for, and benefiting from natural resources. Ensuring that both men and women are integrated meaningfully into all aspects of ENRM intervention planning and implementation is essential for achieving success in those activities and for the improvement of gender equity in the communities involved.

E. Next steps

We will follow this interim study with final case studies of the five ENRM and SGEF grants, conducting primary qualitative data collection in mid-2020 and producing a final report by mid-

2021. There will be a combination of focus group discussions and key informant interviews with grant beneficiaries and local stakeholders, such as local leaders and government officials working in the areas. We will build on interim lessons learned and trace the evolution of any changes we find, focusing on sustainability, the spread of changes, and higher level outcomes such as reported changes in crop yields and revenue, sediment runoff and weed growth, and gender equality in access to resources. We will also investigate the mechanisms underlying any changes found.

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I. INTRODUCTION

Malawi generates 98 percent of its electricity from hydropower, relying primarily on three power plant sites along the Shire River. The rapid growth of invasive aquatic weeds limits the free flow of water in the river, however, leading to costly blockages and breakdowns that interrupt the power supply and reduce generative capacity (Government of Malawi 2013; Lea and Hanmer 2009). In addition, excessive sedimentation in the Shire River reduces active storage at hydropower plants, hindering the ability of plant operators to optimize plant production. Environmental studies of the Shire River Basin have identified land management practices as the primary driver of weed growth and sediment build-up in the Shire. As population density increases and households have few economic opportunities, more and more farmers are cultivating in fragile areas, on steep slopes and along river banks, leading to environmental degradation, soil erosion, and fertilizer runoff. Poverty is also a cause of deforestation, as communities cut down trees for economic gain from charcoal production to meet the market demand of urban dwellers (Government of Malawi 2013).

To address this problem, the Millennium Challenge Corporation (MCC) financed and the Millennium Challenge Account-Malawi (MCA-Malawi) implemented the Environmental and Natural Resources Management (ENRM) Project. As part of the project, MCA-Malawi created a grant facility to provide funding and technical support to 11 non-governmental organizations to carry out two activities in the Shire River Basin:

1. The ENRM activity provided funding to reduce soil erosion by improving land management activities in high-priority catchment areas.
2. The Social and Gender Enhancement Fund (SGEF) activity complemented the ENRM activity and was aimed at helping women and vulnerable groups improve their economic and social rights and their decision-making power within their households and communities. SGEF also worked with men who have limited control of resources in a matrilineal society.

Some grantees focused more extensively on ENRM activities while others focused more on SGEF activities; however, all grantees conducted both types of activities. To assess the effectiveness of the ENRM and SGEF activities, MCC contracted Mathematica to conduct an independent evaluation of the ENRM and SGEF grants as part of an overall evaluation of the ENRM Project. This report focuses on the evaluation of the ENRM and SGEF grants. A companion volume—Coen et al. (2019) contains findings from the evaluation of four other aspects of the ENRM Project—the weed and sediment management activity, the grant facility activity, the environmental trust, and the ENRM project as a whole. For this evaluation, Mathematica conducted in-depth case studies of five of the grants.

This report presents interim findings based on data collected through the close of the compact.[2] We conducted focus group discussions with grant beneficiaries and key informant interviews with staff from grantee organizations, relevant government agencies, and MCA-Malawi and

[2] Mathematica also conducted an interim evaluation of the other activities under the ENRM project. Those results are presented in a companion report, which includes a review of the relevant literature.

MCC, as well as with beneficiaries and community leaders. We also observed community meetings within the intervention areas and reviewed key activity documentation, including grant reports and MCA-Malawi evaluations of the grants. Our analysis enables us to answer research questions on grant implementation, adoption and outcomes of ENRM and SGEF activities—including land management practices, household decision making, and leadership opportunities for women—and grant sustainability.

In the remainder of this chapter, we provide context for our case study analysis of the ENRM and SGEF grants by describing the grant activities and the mechanisms through which the activities are expected to affect outcomes, as set out in the program logic.

A. Overview of Malawi compact and ENRM and SGEF activities

The $350.7 million Malawi compact was in force from September 20, 2013, through September 20, 2018. It comprised three projects to develop a more reliable and efficient electricity grid and provide reduced energy expenses for enterprises and households across the country. (1) The Infrastructure Development project rehabilitated and modernized Malawi's power system ($260.2 million (2) the Power Sector Reform project undertook institutional and regulatory reform to improve the regulatory framework and energy policy environment ($27.5 million), and (3) the ENRM project worked to reduce costly disruptions and increase the efficiency of hydropower generation by mitigating aquatic weed growth and sedimentation in the Shire River Basin $19.9 million).[3]

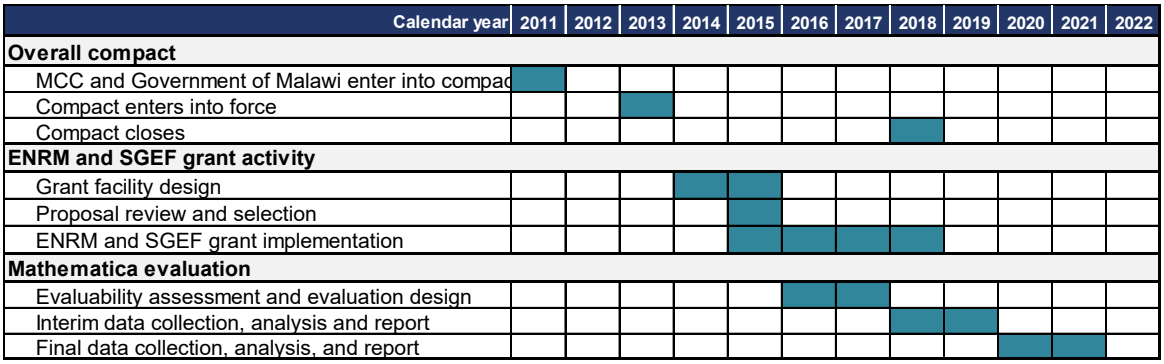
ENRM and SGEF activities within the ENRM project are the focus of this report. MCC funded and MCA-Malawi established and operated a **grant facility** to support ENRM and SGEF grants. The grant facility was intended to be an opportunity to pilot different approaches for sustainable land management through grants and aimed to provide learning for the environmental trust, a sustainable funding entity being created as part of the ENRM activity to support sustainable land management activities and to promote gender equity once the compact concluded.

Grant programming had to occur within 12 catchment areas (seven in the Upper Shire and five in the Middle Shire) identified in baseline assessment reports that were completed as part of the due diligence of the compact.[4] MCA-Malawi received 57 grant applications and funded 11 projects to be implemented over a three-year period that ended in July 2018. Figure I.1 illustrates the timeline for the Malawi compact, the grant facility activity, and Mathematica's independent evaluation, which began in 2016 and is scheduled to be completed in 2021.

[3] The compact budget also included $36.1 million for program administration and $6.9 million for monitoring and evaluation.

[4] In the Middle Shire, The World Bank and MCC collectively identified 10 priority catchment areas, then split those into two groups. The World Bank focuses on five of the catchment areas in the Middle Shire and MCC focuses programming on the other five.

Figure I.1. ENRM Project timeline



Grants generally included efforts related to soil and water conservation measures, alternative income generating opportunities to help households move away from unsustainable land management practices, and institutional capacity building for enhanced community-based management. Such activities included mulch production, crop diversification, planting trees and vetiver grass, constructing box ridges and contour ridges, and developing ENRM action plans at the village level. These activities were often complemented by women's empowerment programs whose activities included conducting business skills, leadership, and gender equality trainings, organizing community REFLECT Circles that often included a literacy development and numeracy component, and setting up village savings and loan (VSL) groups and environmental management or forestry groups. Through a participatory approach to adult learning and social change, REFLECT (Regenerated Freirean Literacy through Empowering Community Techniques) Circles aimed to bring community members together to discuss issues the participants identified as important, ensuring that people's voices could be heard equally and that participants continually analyzed dynamics of power within their communities (ActionAid 2017; Reflect 2009). The circles created a space for participants to establish a collective voice to assert their rights and change their position in society, with the goal of facilitating empowerment through various components in each grant. The methodology was adapted to incorporate natural resource management and gender equality principles. REFLECT Circles increased and enhanced communication between women and men to manage land more jointly and sustainably, while also educating participants about women's rights, and especially encouraging women to build their knowledge and assert their rights (Archer and Goreth 2004). MCA-Malawi also developed technical assistance manuals on REFLECT circles and VSLs to help grantees integrate gender equality and sustainable land management principals into these activities.

Table I.1 provides summary information on the implementing organization, activities, and location of each of the 11 approved grantees. In general, each grantee conducted a similar package of overlapping activities that addressed both ENRM and SGEF objectives, though some grantees focused more extensively on particular objectives. For instance, Women's Legal Resources Centre (WOLREC) and Catholic Commission for Justice and Peace (CCJP) had experience related to SGEF activities and focused their programming on those types of interventions. Conversely, United Purpose and Foundation for Irrigation and Sustainable Development (FISD) had more experience conducting ENRM-related activities, which their grant proposals reflected. However, all grantees ended up implementing both ENRM and SGEF activities to some extent.

Table I.1. Overview of approved ENRM and SGEF grantees

Implementing organization	Project title (grant size)	Subcatchment (district) and intervention villages		Summary of activities
Action Aid Malawi (AAM)[a, b]	Invigorating Gender-Inclusive Environment and Natural Resource Management ($502,503)	Mwetang'ombe—Lisungwi (Neno) in 32 villages (three TAs)	ENRM	i. Identify lead farmers to carry out mobilization campaigns on woodlot management and other sustainable farming practices ii. Conduct trainings on sustainable land use practices, including tree planting, vetiver grass planting, and fruit propagation
			SGEF	i. Conduct trainings on business management. Conduct literacy and gender-equitable ENRM classes ii. Establish village savings and loan (VSL) groups to support alternative income-generating activities iii. Conduct meetings to sensitize community members about gender equality Establish adult literacy classes
Assemblies of God Care (AG CARE)[b]	Enhancing Livelihoods and Resilience of Households in Lingamasa Catchment Area of Upper Shire Basin ($515,439)	Upper and lower Lingamasa (Mangochi) in 20 villages (one TA)	ENRM	i. Sensitize communities on environmental degradation ii. Distribute and plant tree seedlings and sweet potato vines
			SGEF	iii. Conduct training on leadership and sustainable land management iv. Establish adult literacy classes
Catholic Commission for Justice and Peace (CCJP)[a]	Empowering of Communities in the Upper Shire River for Power Generation ($362,084)	Upper Lingamasa (Mangochi) in 31 villages (one TA)	ENRM	i. Conduct trainings on sustainable land use practices, including tree planting, fruit propagation, and vetiver grass planting
			SGEF	ii. Lobby local leaders to increase women's involvement in agricultural decision making iii. Hold community trainings for women on leadership, business and marketing skills, livestock production, beekeeping, and household planning and budgeting iv. Establish VSL groups and adult literacy and math schools v. Conduct trainings to sensitize community members about gender equality
Circle for Integrated Community Development (CICOD)	Machinga-Based Shire River Catchment Biodiversity Conservation and Management Project ($482,918)	Machinga-Likwenu River Watershed (Machinga) in 45 villages (two TAs)	ENRM	i. Train village committees to oversee and lead ENRM activities ii. Distribute vetiver grass and construct check dams, box ridges, and contour ridges to slow the speed of runoff water iii. Plant trees, establish communal woodlots, produce manure, and distribute seeds for crop diversification iv. Provide trainings in forest reserve monitoring, business management, beekeeping, and livestock husbandry
			SGEF	v. Conduct trainings to sensitize community members about gender equality vi. Provide trainings in women's empowerment vii. Establish VSL groups and leaders to support alternative income-generating activities iii. Establish adult literacy classes

Implementing organization	Project title (grant size)	Subcatchment (district) and intervention villages		Summary of activities
Foundation for Irrigation and Sustainable Development (FISD)	Integrated Approaches to Natural Resources Management and Conservation for Sustainable Hydropower Project ($718,201)	Lunzu—Linjizi (Blantyre) in 113 villages two TAs)	ENRM	i. Provide trainings on sustainable land use practices, including tree planting, forest management, manure and mulch production, and gully and swale construction ii. Conduct trainings on business management and leadership iii. Advocate for sustainable land use practices at village government meetings iv. Establish a solar-powered irrigation scheme
			SGEF	v. Conduct meetings to sensitize community members about gender equality vi. Establish VSL groups to support alternative income-generating activities
Self Help Africa (SHA)	Shire Basin Sustainable Natural Resources Management Social Enhancement Project ($607,147)	Mid Nkasi (Balaka) in 127 villages (three TAs)	ENRM	i. Conduct trainings on sustainable land use practices, including box ridge, check dam, contour ridge, and marker construction; pit planting; agroforestry; manure production; and livestock husbandry ii. Distribute and plant tree seedlings and pigeon peas to increase income and decrease runoff
			SGEF	iii. Conduct meetings to sensitize community members about gender equality iv. Establish VSL groups to support alternative income-generating activities v. Conduct training with women on business management and marketing
The Hunger Project (THP)	Titukuke ndi Chilengedwe ndi Magetsi/Growth Through Environment and Electricity ($540,050)	Mwetang'ombe—Lisungwi (Neno) in 45 villages (one TA)	ENRM	i. Conduct training for community members on sustainable land use practices, including gardening, tree planting, fruit propagation, gully reclamation, and forest management ii. Establish and train Village Natural Resource Management Committees (VNRMCs)
			SGEF	iii. Establish VSL groups to support alternative income-generating activities iv. Identify and educate trainers of trainers (ToT) and local leaders on female empowerment issues v. Identify and educate ToT on business and financial management to educate VSLs
Training Support for Partners (TSP)	Strengthening Community Participation in Sustainable Land and Forest Management in the Middle Shire River Basin ($438,701)	Upper Rivirivi (Ntcheu) in 107 villages (two TAs)	ENRM	i. Conduct trainings to sensitize community about relationship between ENRM and power generation ii. Conduct training on business management, including beekeeping iii. Provide training on SLM practices, including tree planting, contour ridge construction, vetiver grass planting, climate smart technologies, and clan-based forest management
			SGEF	iv. Establish VSL groups to support alternative income-generating activities v. Establish adult and child literacy classes vi. Conduct meetings to sensitize community members about gender equality vii. Train women and local leaders on advocacy and lobbying

Implementing organization	Project title (grant size)	Subcatchment (district) and intervention villages		Summary of activities
United Purpose (formerly Concern Universal)	Improving Catchment and Natural Resource Management for Sustainable Livelihoods ($836,064)	Upper Chimwalira and Upper Chilanga (Balaka) in 72 villages (three TAs)	ENRM	i. Provide seeds for crop diversification ii. Conduct trainings on SLM practices, including crop diversification, tree planting and management, and vetiver grass planting
			SGEF	iii. Establish adult literacy classes using REFLECT methodology iv. Conduct leadership and assertiveness trainings v. Conduct meetings to sensitize community members about equal gender relations vi. Establish ENRM-sensitive VSL groups to support alternative income-generating activities vii. Promote women's effective participation and decision making influence at household and community levels
We Effect (WE) consortium	Smallholder Improvement of Shire River Ecosystem ($515,197)	Upper Nasenga South (Mangochi) in 98 villages (two TAs)	ENRM	i. Train lead farmers on sustainable land use practices and dissemination of practices ii. Provide trainings for community members on SLM practices, including use of cover crops, mulch production, tree planting, vetiver grass planting, and use of drought-resistant crops iii. Conduct trainings on business management
			SGEF	iv. Lobby village leaders and train community members to institute policies on gender equality. v. Establish VSL groups to support alternative income-generating activities
Women's Legal Resources Centre (WOLREC)[a]	Promoting the Socioeconomic Status of Women to Achieve Sustainable Environment and Natural Resource Management in Balaka and Neno Districts ($442,461)	Upper Rivirivi (Ntcheu); Nkasi (Balaka) in 81 villages (two TAs)	ENRM	i. Provide trainings on sustainable land use practices, including elephant grass planting, tree planting, and forest management
			SGEF	ii. Establish community groups to discuss improved gender equality iii. Conduct trainings with women on leadership iv. Conduct meetings/trainings to sensitize community members/leaders on gender equality. v. Establish adult literacy classes vi. Establish VSL groups to support alternative income-generating activities

Sources: Grant final reports, MCA-Malawi grant closure forms, MCC 2018, and MCA-Malawi 2016.

[a] Grant focuses more extensively on SGEF activities than on ENRM activities. (Other grantees focus more extensively on ENRM activities.)

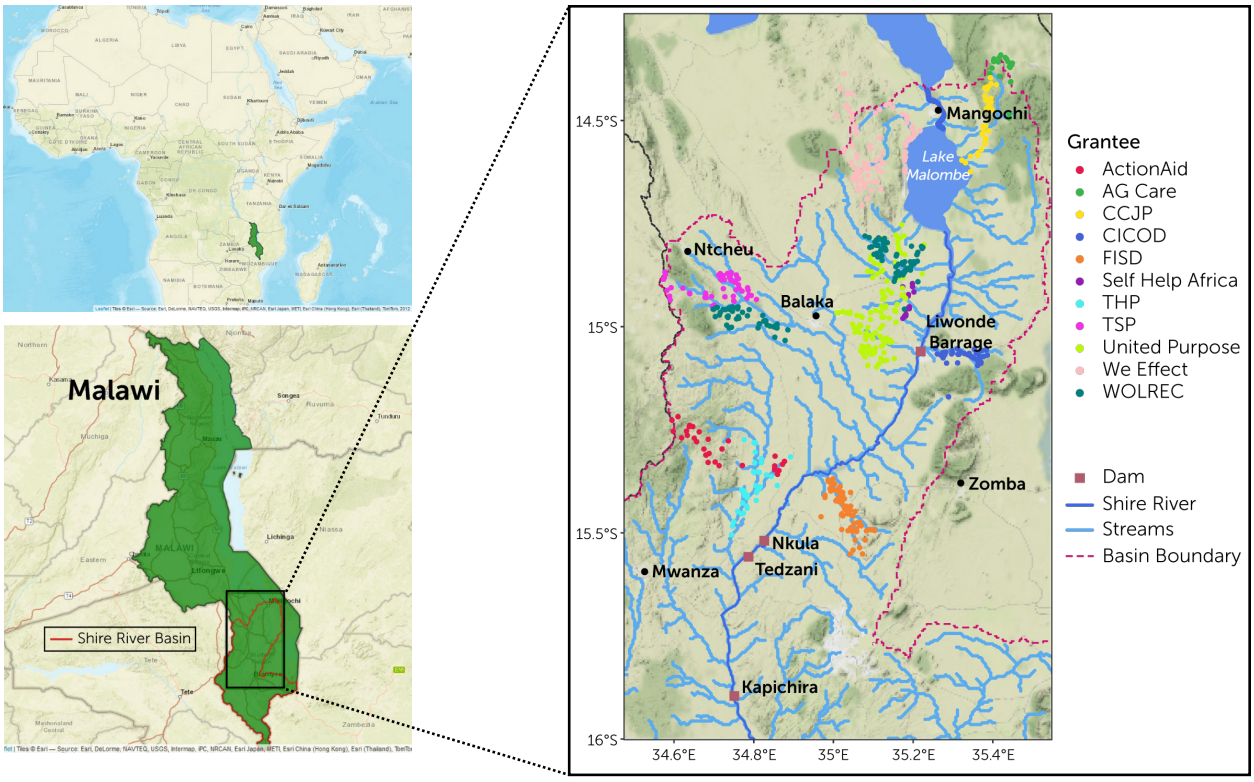
[b] Grantee began implementation in December 2015. (All other grantees began implementation in August 2015.)

[c] WE leads a consortium of implementing organizations for this grant that includes the Catholic Development Commission (CADECOM) and the Organisation for Sustainable Socio Economic Development Initiative (OSSEDI).

TA = Traditional Authority, an administrative unit.

The approved grantees covered four of the five priority catchments in the Middle Shire and four of the seven priority catchments in the Upper Shire. Four catchments had two different grantees that conducted programming in the same priority area. (WOLREC's programming spans two catchment areas.) The grantees conducted activities in 771 villages encompassing 22 Traditional Authorities (TAs). Each grant operated in 20 to 127 villages and one to three TAs (MCC 2018). Figure I.2 shows the location of each intervention village in the upper and middle Shire River Basin region, color coded by grantee. The dark blue line shows the Shire River and the lighter blue lines show the streams that feed into it.

Figure I.2. Map of ENRM and SGEF grant activity locations

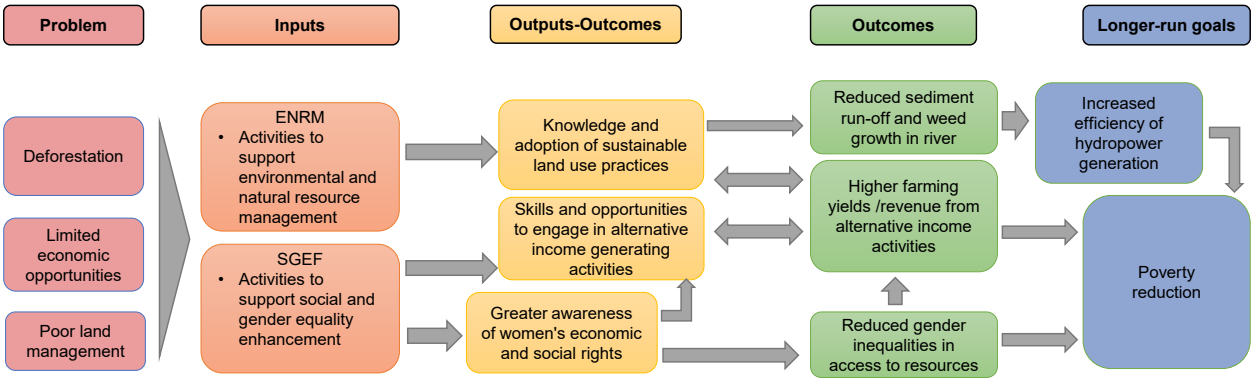


B. Program logic for the ENRM and SGEF grants

Although each of the grantees had a program logic specific to its activities, there was also a common underlying program logic for the grants.[5] Figure I.3 presents the underlying program logic for ENRM and SGEF grants based on a review of the grant facility manual, grant proposals and reports, and interviews with MCC, MCA-Malawi, and grant program staff.

[5] We present the grant-specific program logics for the five grantees selected for our case study analysis in the respective findings chapters (Chapters III through VII).

Figure I.3. Program logic for ENRM and SGEF grants



Grants sought to address several problems in the intervention areas, including deforestation due to charcoal production, limited economic opportunities for households, and poor land management practices that resulted in high levels of soil erosion. Grants implemented various activities (**inputs)**, such as trainings on soil conservation and sustainable land management practices; trainings on leadership, gender equality, and business management; and establishment of VSL groups to support alternative income-generating activities. Including gender equality components was designed to ensure that women as well as men could use these skills to change land use practices, engage in alternative income-generating activities to reduce pressure on natural resources, and be more aware of women's economic and social rights within their communities (**outputs**).

The three main intended **outcomes** for the grants were (1) reduced sediment runoff and weed growth through changes to more sustainable land use practices, (2) higher farming yields and additional revenue from alternative income activities through improvements to farming practices and diversification of economic activities, and (3) reduced gender inequalities in access to resources through increased awareness of women's economic and social rights. This increase in resource access would also increase household income. Between outputs and outcomes, there are also feedback loops (indicated with double-sided arrows) that multiply positive results on crop yields and revenue. In the **longer run**, these interventions intended to bring about (1) increased efficiency of hydropower generation (through reduction of sediment runoff and weed growth in the Shire) and (2) reduced poverty through higher farming yields, revenue from alternative income activities, and increased gender equality in access to resources.

C. Roadmap for the report

The rest of this report is organized as follows.

- In Chapter II, we describe our case study methodology in depth, including the selection process used for the five case studies.
- In Chapters III through VII, we provide detailed analysis and results for each of the five case studies.

  - We begin with Training Support for Partners (TSP), which focused on both ENRM and SGEF activities in Chapter III.
  - We then report findings from grants that mainly focused on ENRM activities: United Purpose (UP) and Foundation for Irrigation and Sustainable Development (FISD) in Chapters IV and V.
  - Chapters VI and VII present findings from case studies of grants that mainly focused on SGEF activities: Catholic Commission for Justice and Peace (CCJP) and Women's Legal Resources Centre (WOLREC).
- After the individual case studies, we present the higher-level cross-case comparative analysis of the grants and summary findings in Chapter VIII.
- Chapter IX concludes the report, discussing next steps in the evaluation.

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II. EVALUATION DESIGN

We evaluated five of the ENRM and SGEF grants by using a case study approach that encompassed both primary qualitative data collection and a review of grant reports and MCA-Malawi grant evaluations. A case study allows for an in-depth examination of each grant's implementation, its ENRM and SGEF outcomes, and the prospects for sustaining them. Using the findings from the case studies, we conducted a cross-case comparative analysis to draw broader conclusions about which types of activities and training approaches are most effective. The cross-case analysis compares implementation and outcomes across the five grants' case studies and illustrates common themes and lessons that emerged, thus identifying the activity intervention approaches that are most or least effective.[6]

The evaluation is designed to answer four types of research questions: (1) implementation questions about the program logic, whether activities were implemented with fidelity to the program model, and what supported and hindered the implementation; (2) ENRM research questions that examine land management practices; (3) SGEF research questions that assess changes in behavior and attitudes toward the role of women in the community; and (4) a sustainability-related research question that focuses on perceptions of whether grant activity outcomes will be maintained or expanded after the grants end. The full set of research questions is in Box II.1.

[6] Before starting the evaluation, we described our planned methodological and analytical approach in a comprehensive evaluation design report (Coen et al. 2018). The description in this chapter mirrors the description of the approach in the design report.

Box II.1. Research questions

Implementation

1. Which intervention was implemented and what was the program logic underlying it?
2. How was the program implemented?
   a. How did implementation change from what was planned, and why?
   b. Which implementation factors supported or hindered the completion of the intervention?

Effects of ENRM activities

3. To what extent did the intervention lead to adoption of conservation agriculture and land management practices by farmers and communities?
   a. Which land management practices are more readily adopted by farmers and communities, and why? Are there differences in adoption between male and female farmers?
   b. Is it possible to differentiate between effective training approaches and practices that farmers are predisposed to adopt? If yes, are certain training methods associated with greater farmer adoption? Are different training methods associated with better results for male and female farmers?
   c. What was the relationship, if any, between ease of adoption, farmers' perceptions of effectiveness, and farmers' tendency to adopt different practices?

Effects of SGEF activities

4. To what extent did the intervention affect gender roles in the household and communities?
   a. To what extent did the intervention lead to greater joint household decision making regarding land and natural resource management and household finances?
   b. To what extent did the intervention lead to changes in division of labor on the farm and at home?
   c. To what extent did the intervention lead to leadership opportunities for women? To what extent did the intervention promote female-headed household involvement in community decision-making?
5. Were grants that focused more on ENRM or SGEF activities more or less effective than grants that targeted both types of activities?

Sustainability

6. What are stakeholders' perceptions of the sustainability of grant activities to improve sustainable land management and address social and gender barriers? What factors were driving beneficiaries to continue to adopt SLM practices?

A. Selecting grants for the case studies

We followed a careful process to select five of the 11 grants as the subjects of case studies. We relied on information from interviews with MCA-Malawi grant facility staff and staff at 10 of the 11 grants, site visits to three grant intervention areas, and a review of grant documents, including proposals and quarterly reports. We used this information to develop selection criteria for the grants we would include in our evaluation. The criteria included the following:

1. **Strength of intervention implementation.** Through the evaluation, we intend to identify which grant intervention approaches are successful regardless of the implementer. To that

end, we focused on grants that stakeholders considered well implemented and that were funded for the full three years of the activity.

2. **Geographical dispersion.** The Upper and Middle Shire River Basins encompass several ecological zones with different topographical features. We chose grants that collectively provided learning for a wide area of the Shire River Basin and covered several agro-ecological zones, including hot-spot areas (such as steep slopes) identified in the environmental baseline assessments.
3. **ENRM and SGEF activities.** Some grantees focused on the grant facility's ENRM objectives; others concentrated on achieving SGEF objectives as defined in the ENRM and SGEF grant manual. As a group, the selected grants covered both sets of objectives.
4. **Distinct approaches**. Many grantees conducted similar activities, which tended to be a standard set of interventions focused on conservation agriculture and female empowerment. A few grantees, however, had more novel approaches to conservation agriculture interventions. In addition to evaluating traditional interventions, we wanted to evaluate innovative conservation agriculture approaches that have the potential to provide evidence on the effectiveness of both new and traditional practices and methods.
5. **Strong intervention presence.** To assess community-level outcomes, such as adoption of conservation agriculture techniques, our evaluation focused on grantees with the largest intervention presence in the catchment area. We avoided grantees whose activities overlap with other organizations in the same area, which would make it more difficult to identify the results of each grantee's intervention

After talking with MCC and MCA-Malawi, we identified the following grants that met the selection criteria for our evaluation: Catholic Commission for Justice and Peace (CCJP), Foundation for Irrigation and Sustainable Development (FISD), Training Support for Partners (TSP), United Purpose (UP), and the Women's Legal Resources Centre (WOLREC) (Table II.1).

Table II.1. ENRM and SGEF grants to evaluate

Grants	Well-implemented	Middle Shire	Upper Shire	ENRM focus	SGEF focus	Distinct approach	Strong intervention presence
Catholic Commission for Justice and Peace (CCJP)	X		X		X		X
Foundation for Irrigation and Sustainable Development (FISD)	X	X		X		X	X
Training Support for Partners (TSP)	X	X		X		X	X
United Purpose (UP)	X		X	X			X
Women's Legal Resources Centre (WOLREC)	X	X	X		X		X

These five grants were chosen in part because MCA-Malawi considers all of them to be relatively well implemented. A key objective for the case study analysis is to provide learning on well-implemented grants for both MCC, the Government of Malawi, other aid agencies and NGOs, and particularly for the environmental trust to help it identify effective approaches to fund. The companion volume to this report (Coen et al. 2019) covers the accountability objective of evaluating the overall grant facility.

These five grants implemented a variety of activities. Some activities are unique to a particular grant, and others are used in more than one grant. For unique activities, FISD constructed a 60-hectare irrigation scheme to support winter cropping and sustainable water use management. TSP worked through village clan systems as a way to encourage sustainable land management. WOLREC and CCJP focused their activities on achieving the SGEF objectives. And UP, along with several other grantees, conducted traditional conservation agriculture programming. However, overall the activities the five grantees implemented were drawn from a relatively small set and had a great deal of overlap across grants (see Table II.2). All five case studies included ENRM activities focused on soil conservation, land management, tree planting, and forest management. For SGEF activities, all five grants used REFLECT circles, provided trainings to sensitize community members about gender equality, and started and/or trained community members in the management of VSLs and adult literacy.

Table II.2. Activities implemented by grants

ACTIVITIES	TSP	UP	FISD	CCJP	WOLREC
ENRM activities					
Community mobilization and participation in the ENRM decision making	X	X	X	X	X
ENRM Action Plans and Bylaws	X	X	X	X	X
Tree planting	X	X	X	X	X
River bank protection (vetiver grass planting and elephant grass planting)	X	X		X	X
Fruit tree propagation / production		X		X	X
Communal woodlots	X		X	X	X
Manure production, mulch and manure fertilizer use	X	X	X	X	X
Gully and swale construction		X	X		
Contour ridge construction and climate smart technologies	X	X			X
Crop diversification	X	X	X		
Beekeeping	X	X		X	X
Livestock production		X		X	X
SGEF activities					
Trainings of leaders and community members in gender equality	X	X		X	X
Women empowerment through leadership training	X	X		X	X

ACTIVITIES	TSP	UP	FISD	CCJP	WOLREC
Training on business and marketing skills	X	X	X	X	X
Establish REFLECT circles	X	X	X	X	X
Establish VSL groups	X	X	X	X	X
Establish adult literacy classes	X	X	X	X	X

B. Analytical method and data collection

We used a case study approach to evaluate each grant, conducting a deep-dive analysis to understand how activities were implemented, how they affected beneficiaries, and which outputs and outcomes they brought about. This process provides a rich context both for understanding results and identifying the key mechanisms or factors that are driving them. And by looking at all five cases and comparing the results, we can understand how common activities or different activities are associated with outcomes of interest. We also examined beliefs on whether the benefits of each grant intervention would be sustained after the activities ended.

1. Sampling plan

Because each grantee chosen for the case studies covered a wide geographic area, we concentrated interviews within sub-sections of the intervention areas. From the largest to the smallest unit, Malawi is organized administratively by district, Traditional Authority (TA), group village headman (GVH), and village. Each case study grantee covered between 7 and 12 GVHs and between 31 and 64 villages. So we concentrated interviews within smaller geographic areas, conducting our case study interviews and focus groups within 2 GVHs per grantee. Drawing on information provided by each grantee, we selected GVHs that reflected well-executed implementation, had the most engaged beneficiaries, and received the largest number of grant activities.[7] In other words, we purposely selected GVHs that operated under the best-case scenario for implementing activities. This approach allowed us to assess the potential of the grants under the best cases—that is, to learn under real conditions what types of activities can work and don't work, and why.. Looking at areas where many different activities were implemented also allowed us to learn which types of activities were working the best and why. Within each GVH, we focused further on one or two villages that were most engaged with grant interventions based on information provided by each grantee.[8] This allowed us to learn the most from beneficiary interviews about what can work, what did not work, and why for each type of grant activity.

[7] We identified well-executed implementations based on implementers' reports of places where implementation was either done exactly as planned or was improved on, and we avoided places where implementation was not conducted according to design. Implementers also nominated GVHs that (according to subjective judgments) had the most enthusiastic, helpful, interested participants, engaged residents, and strong partnerships.

[8] We conducted case study interviews in three villages (across two GVHs) for each grantee except WOLREC, for which we conducted interviews in four villages (two per GVH) because its intervention area spanned two districts.

For each case study, we collected a large array of qualitative data through key informant interviews, focus groups, direct observation, and document review. Table II.3 describes our sampling plan, including each data source, data collection method, number of interviews, and the sample definition. All interviews in the selected villages were with direct beneficiaries of the grant interventions; that is, village members who actively participated in grant interventions as determined through discussions with GVH leaders, grantees, and other grant beneficiaries.[9] In selecting community leaders, we also looked for those who had a strong influence in the community according to the community members and grant activity staff we spoke to.

Table II.3. Data collection specifications for the case studies

Data source	Data collection method	Number	Sample definition
Grantee staff	Key informant interviews	11 (~2 per case)[a]	• Staff who implemented activities and managed the grant with MCA-Malawi, including one staff member who directed the grant activities and one who oversaw SGEF activities • We identified respondents by soliciting information from each grant organization and reviewing the grant contact list provided by MCA-Malawi, then selecting respondents who knew the most about how activities were implemented.
Community leaders in intervention area	Key informant interviews	22 (~4 per case)[b]	• One or two GVH leaders (per case) based on their participation in the grant activities and influence in the community • Two or three other community leaders (per case) such as REFLECT circle facilitators, village savings and loan agents, lead farmers, and other influential members of the community who were involved with the grant activities
Grant beneficiaries	Focus groups	25 (5 per case, 6 to 12 people per group)	• Focus groups included beneficiaries who actively participated in the ENRM and SGEF activities such as REFLECT Circles, VSLs, leadership trainings, tree planting, ridge construction, and farmer trainings. • Some focus groups were women-only, some men-only, and some included both men and women.
Female SGEF participants and spouses	Key informant interviews	30 (6 per case)	• Three female participants active in SGEF activities (per case), chosen to cover a variety of perspectives including those of community leaders, widows, female heads of households, young women, and elderly women. • Three men (per case) who participated in grant activities and are married to active female participants; the men had a mix of characteristics such as age, length of marriage, and involvement in grant activities. • Not all men were married to the women we interviewed, as some of the selected women were single.
District government officials	Key informant interviews	15 (3 per case)	• Three staff members (per case) from government agencies that supported grant activities, including the community district offices of development, forestry, and agriculture • We selected staff to interview based on their knowledge of the grant activities and the significance of their role in activities.

[9] Grant beneficiaries, who actively participated in grant activities, include the following people described as data sources in Table II.2: community leaders, grant beneficiaries, female beneficiaries and spouses of female beneficiaries.

Data source	Data collection method	Number	Sample definition
Community meetings	Direct observation	5 (1 per case)[d]	• Meetings of active groups supported by the intervention, selected based on discussions with community leaders and including area or village development committees, village natural resource management committees, VSLs, or REFLECT circles
MCA-Malawi M&E staff	Joint interview	1 (2 people in interview)	• Staff from MCA-Malawi monitoring and evaluation team
MCA-Malawi sector staff	Key informant interviews	4	• Relevant sector staff for the grant facility
MCC DC staff	Key informant interviews	3 (with one joint interview)	• Staff who oversaw the implementation of the Malawi compact
Grant facility documentation	Document review	All available documents	• Grant quarterly and final reports and internal MCA-Malawi grant evaluations

[a] For CCJP, we interviewed a third grant staff member because he had details on how activities were performed.

[b] At the request of the community, we interviewed two other leaders who had knowledge of the grant activities.

[c] One beneficiary provided only limited information during an interview, so we interviewed another beneficiary to ensure we had all the relevant perspectives.

[d] We were unable to observe a community meeting for CCJP, but observed two meetings for TSP.

ENRM = environmental and natural resource management; GVH = group village head; SGEF = Social and Gender Enhancement Fund; VSL = village savings and loan.

In choosing whether to do key informant interviews or focus group discussions to collect qualitative data, we chose the approach that better suited the type of respondent and the type of information we wanted to gather. Key informant interviews allowed in-depth discussions on detailed elements and processes and beneficiaries' experiences with them. The interviews were also opportunities to discuss sensitive topics that people may not have been comfortable discussing in a group, such as their grant organization's performance or their observations on working with MCA-Malawi or community leaders.

Focus groups were most useful to spur discussions among respondents, creating an atmosphere in which ideas built on each other and generated opportunities for consensus or disagreement in a group setting. Focus groups also allowed us to collect opinions from multiple stakeholders at the same time, increasing efficiency. We made sure to conduct the right number of focus groups and interviews to get enough information to answer our research questions. For example, interviews with two grantee staff per case study yielded enough information to fully understand the technical, administrative, and financial components of the grant's activities.

2. Data collection process

We developed semi-structured interview protocols and focus group discussion guides for each type of respondent, which were mapped to the evaluation's research questions. These were designed to elicit participants' perceptions of the grant's activities and how they were implemented, the outputs and outcomes of grant activities—such as adoption of land management practices and changes in gender roles within households and the community—and prospects for sustaining those outcomes. Because the number of research questions necessitated

a lengthy protocol, we created two versions of the protocols for community leaders, grant beneficiaries, and female beneficiaries and spouses. One version emphasized questions on the ENRM activities, with fewer questions on the SGEF activities. The other version emphasized questions on SGEF activities, with only a few questions on ENRM activities. Each protocol was used about half the time for the relevant respondents for each case study. We closely monitored data collected for each case to ensure we obtained sufficient information to clearly answer each research question.

Staff from Mathematica and its data collection partner in Malawi collected the primary qualitative data for the grant case studies. Mathematica staff interviewed MCA-Malawi and MCC staff between May and November 2018. Kadale Consultants, a data collection firm based in Lilongwe, Malawi, conducted interviews and focus groups with grantee staff, district government officials, and grant beneficiaries from June through August 2018, just as grant activities were concluding their third and final year of implementation (see Figure I.1 for a complete project timeline). Kadale translated the grant beneficiary protocols into Chichewa and Yao and conducted those interviews in the respondent's preferred language. Kadale conducted interviews with grantee program staff and government officials mainly in English. All interviews were audio-recorded.

We encountered significant challenges observing community meetings of active groups supported by the intervention, such as area or village development committees, village natural resource management committees, VSLs, or REFLECT circles. We planned to observe three meetings per case study to understand the grantees' prospects for sustaining their grant outcomes. However, meetings were either rarely held, scheduled ad hoc, or canceled, so we ultimately decided to observe just one meeting per case study. Some groups seemed to stop meeting as grant activities were winding down. We ultimately could not observe a community meeting for CCJP, but we observed two TSP meetings and one meeting each for the other three case study grants.

3. Analysis approach

We used a variety of methods to analyze qualitative data for the case studies. We next discuss how we applied these methods to different research questions.

Grant implementation (research questions 1 and 2). To understand and characterize each grant's program logic and design, we reviewed grant activity documents. Grantees varied in the amount of information they provided on their program logic in their grant activity documents. We supplemented gaps in documentation through other data sources such as coded interviews with grantee staff and beneficiaries to identify (1) program objectives and activities; (2) the population the grant focused on; and (3) the timeline for funding and implementing activities. We used this information to develop logic models of each grant's intended intervention, and used these models to assess whether each grant was implemented as intended and whether the outputs and outcomes that were planned actually happened.

In addition to evaluating how well each grant was implemented, we employed an **implementation effectiveness framework** in which we classified implementation facilitators

and barriers into three categories: (1) characteristics of the intervention design, such as how well the activity aligned with the grantee's program logic; (2) characteristics of the implementation process, such as the flexibility of the implementers and donors to adjust to the needs of beneficiaries, or their collaboration with government stakeholders; and (3) environmental factors and community characteristics, including stakeholder engagement and factors exogenous to the intervention, such as rainy season weather patterns or interventions like the grantees' being conducted by other groups in the same area. By classifying these factors, we identified grants or activities that were subject to similar factors that affect implementation effectiveness, and could compare implementation across grants. We also triangulated the data to cross-check results between interviews with grants program staff and beneficiaries, grant reports and evaluations, and direct observation.

ENRM and SGEF activities (research questions 3, 4, and 5). To assess communities' adoption of land management practices and any changes in gender roles, we developed a coding scheme with a hierarchy of conceptual categories and classifications linked to the research questions. For example, to examine adoption of ENRM practices, we coded responses related both to how widely the practices were adopted within different activities, and which practices were readily adopted and why. To understand why interventions were readily adopted, we then coded categories for types of training approaches, characteristics of practices, and differences in adoption by gender. From there, we conducted **thematic analysis** to help us identify common and conflicting viewpoints across interviews. We also employed **data triangulation** to test for consistency and discrepancies in findings across multiple data sources, such as focus group discussions with activity beneficiaries, grant reports, and key informant interviews with grantee staff and community leaders.

We analyzed each case study individually to examine how each grant activity achieved its outcomes; we also conducted a **cross-case comparative analysis** to compare and contrast results from each case study and yield broader learning on implementation facilitators and barriers, adoption of land management practices, and effects of SGEF activities. We also examined whether common issues are driving or hindering the sustainability of the activities. This analysis allowed us to identify whether there are advantages to integrating SGEF activities into the broader ENRM approach, or if it is more effective for an organization to focus on implementing one set of activities **(research question 5)**.

Grant sustainability (research question 6). To evaluate the sustainability of grant activities, we coded responses from interviews with grant beneficiaries, grant implementers, and MCA-Malawi and MCC staff in terms of whether they were barriers or facilitators on a common set of sustainability dimensions. We examined, for instance, stakeholders' commitment to ENRM practices, their commitment to keep addressing social and gender barriers, the resources available to maintain activity outcomes, and political support for continuing to achieve activity outcomes. We assessed beneficiaries' perceptions of how well SLM practices and any behavior changes associated with the SGEF activities are being maintained and spreading in their communities after the grants end.

In the following five chapters, we present the results of the five grant case studies. We begin each case study by examining how the project was implemented and describing the logic model underpinning the intervention's design. We then analyze outputs and outcomes for ENRM and SGEF activities before concluding with an assessment of project sustainability. All quotes cited give the type of interview and gender of the respondent, along with a unique number by case, to aid confirmability of the research, a criterion of validity in qualitative research.[10]

[10] The following codes are used to identify the type of respondent being quoted: GS = grant program staff; CL = community leader; FG = beneficiary in a focus group; GE = government employee; WH = female SGEF beneficiary or husband of a female SGEF beneficiary; F = female; M = male. Numbers differentiate each unique interviewee.

III. TSP CASE STUDY FINDINGS

Summary of key findings

Implementation (RQ 1 and 2)

- TSP implemented most of the ENRM and SGEF activities as planned, but the short timeline and limited budget for a large implementation area did not allow all the intended GVHs to be covered.

Findings on ENRM activities (RQ 3)

- Stakeholders reported widespread adoption of ENRM practices among participants as well as spillover among non-participants, including establishment of clan and village forest areas and tree nurseries, and implementation of sustainable land management practices.
- Adoption was not driven by characteristics of the ENRM practices, but by the visible environmental and economic benefits of adoption, such as reduced soil erosion from fields and increased yields.

Findings on SGEF activities (RQs 4 and 5)

- Having women be ambassadors in implementing activities and promoting their participation in VSL groups and REFLECT circles have apparently had positive implications for women in household decision making, division of household labor, and, especially, leadership opportunities.
- Making significant changes in gender roles was difficult in the short time frame for implementation.

Sustainability (RQ 6)

- TSP's reliance on women ambassadors during implementation created a strong vehicle for project sustainability.
- Collaboration with government officials and community leaders could also facilitate the continuation of project activities through various mechanisms. However, lack of government staff to review and approve drafted forest management plans and bylaws is a risk for sustainability.

Training Support for Partners (TSP), a nongovernmental organization in Malawi, received a grant of $438,701[11] from MCA-Malawi to implement interventions focused on improving sustainable land management in the Upper Rivirivi River subcatchment area in Ntcheu District, specifically in Traditional Authorities Mpando and Champiti (the location of intervention villages appears in Figure II.2 in Chapter II). The analysis for this interim case study took place as the grant activities were nearing completion. It begins with an examination of the program logic that guided the interventions' design, followed by an assessment of the grant implementation plan and process. In the subsequent sections, we present analyses of grant activity outputs and nascent outcomes for the ENRM and SGEF activities. In the final section of this chapter, we present a preliminary assessment of the potential sustainability of land management practices, outputs, and outcomes.

[11] Including $30,000 given in Year 3, in addition to the original grant.

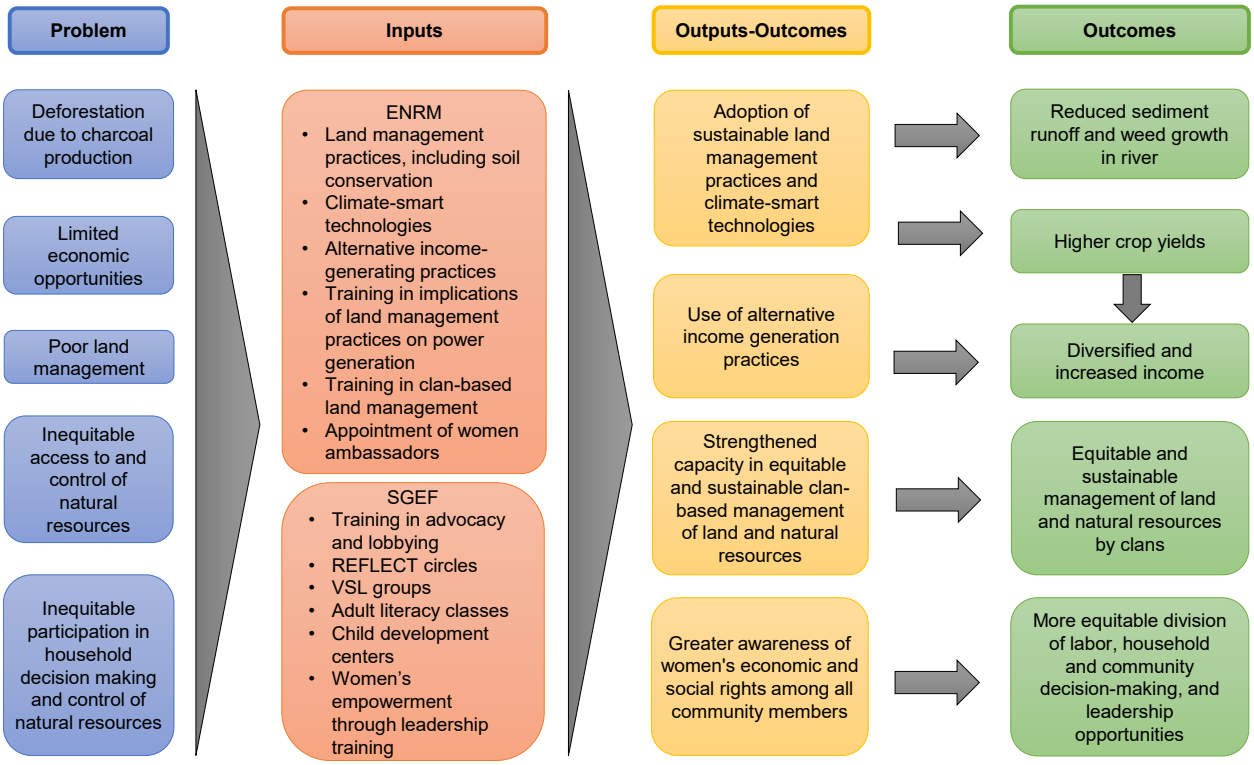
A. TSP interventions and program logic

Research question addressed in this section

- Which intervention was implemented, and what was the program logic underlying it?

Drawing on documentation from TSP and interviews with grant staff, we developed a logic model for TSP's grant activities (Figure III.1)[12]. The interventions implemented by TSP addressed several challenges in the targeted areas. Within the Upper Rivirivi subcatchment area, a variety of underlying problems contribute to sedimentation and weed growth in the Shire River that, in turn, disrupt the efficient operation of the hydropower plants on the Shire River. The underlying problems include crop cultivation close to river banks; poor enforcement of land management policies, resulting in deforestation and increased runoff; income-generating opportunities that are heavily reliant on the unsustainable use of natural resources, such as charcoal production; and inequitable access to and control over natural resources.

Figure III.1. Program logic for TSP grant activities



[12] All individual grant logic models should be understood to lead to the longer-run goals of increased efficiency of hydropower generation and poverty reduction presented in the overall Program logic for ENRM and SGEF grants in Figure I.3.

The main objectives of TSP's interventions were to improve land management by increasing equitable access to and control over land and natural resources through a clan-based management approach. These interventions, in turn, were expected to lead to community members' adoption of more sustainable land management practices and the emergence of economic opportunities resulting from sustainable income-generating activities. In addition, a shift in farming practices would lead to improved environmental and natural resource management. Throughout the grant period, TSP was supposed to provide training and support, particularly to women in the community (**inputs**) who would then use their new skills and decision-making power to change their land management practices and engage in alternative income-generating opportunities (**outputs**). Moreover, TSP's activities were expected to lead to three complementary **outcomes**: (1) on the environmental side, the changes in land practices and use of climate-smart technologies would reduce sediment runoff and weed growth in the Shire River Basin; (2) on the household livelihoods side, changes in farming practices and economic activities would diversify and increase household income; and (3) on the social and gender side, strengthened capacity of clans in equitable and sustainable management of land and natural resources would support a clan-based system of land management, and increasing clan members' recognition of ownership would increase their sense of responsibility to protect and preserve eland and forests. (4) Greater awareness of women's economic and social rights would reduce gender inequalities in access to productive resources. More equal access to productive resources may also improve household income. Furthermore, we expect a feedback loop with these outcomes as higher yields from sustainable land management practices and success in alternative income-generating activities prompt more households to engage in those practices. In the longer run, such interventions are intended both to improve the efficiency of hydropower generation and reduce poverty.

Activities were designed within a distinct ENRM/SGEF framework as grant staff reported that they had previously found that an integrated approach—that is, implementing SGEF activities jointly with ENRM activities—was more effective than implementation of ENRM or SGEF activities alone. For example, as a product of SGEF interventions, women ambassadors promoted ENRM activities.

To reach its various objectives, TSP provided ENRM training to community members in soil conservation and land management practices, focusing on construction of box ridges to maintain moisture on croplands and reduce runoff, making and using manure fertilizer to improve crop outcomes and increase yields, planting vetiver grasses to reduce runoff, and planting trees to increase plant coverage on land and reduce runoff. In addition, TSP introduced a fuel-efficient cooking stove to reduce reliance on firewood. The ENRM activities also included training in alternative income-generating practices, such as beekeeping and diverse crop

Cropland with ridge constructions

planting, to reduce reliance on charcoal production as a source of income (which is a main cause of deforestation in many areas). Further, training delivered to community members highlighted the impacts of soil runoff on power generation and the frequent power supply disruptions experienced by Malawi and the role the community members could play in addressing these issues.

Still further, TSP offered training in a clan-based approach to forest management, including the development of management plans for demarcated clan forest areas, the reliance on bylaws, and the enforcement of regulations within protected lands. In Malawi, territorial chiefs hold land in trust that they then divide among village headmen or headwomen. Upon receiving land from the chief, village headmen or headwomen in Malawi's southern region (where TSP operated) grant plots of land to clan heads, who, in turn, manage the land and distribute it among their clan. A village may be home to members of several clans, and clan heads usually grant plots to matrilineal kin (who make up a clan), relatives by marriage, and sometimes nonrelatives. One beneficiary described the clan system in her area by noting that "five families [form] a clan and each family has its own woodlot or forest" (FG_F2).[13] TSP's grant proposal takes note of this system and considered it when designing its interventions. One grant staff member described the design of the clan-based system within communities, stating,

> *In a village ... there could be two or three clans. That ... group of closely related households ... [has] parcels of land that were already given to them by the chiefs. So we are asking them to demarcate certain pieces of land for conservation of trees to create a forest to allow regeneration of trees. (GS1)*

The clan-based system of land management operates within the structure of TAs, GVHs, villages, etc. giving responsibility over parcels of land to clans within these areas. TSP worked with clans to demarcate parts of their jointly-held lands as protected areas. In the process, TSP built on the advantages of clan-held land by bringing clan members' attention to their land and heightening their sense of responsibility for it. This increased recognition of collective ownership was designed to increase clan members' desire or sense of responsibility to protect the natural resources of these parcels, and take advantage of collective labor to achieve objectives. This approach was distinct from other approaches in that it relies on community ownership and builds on the duties required of clan membership, as opposed to more individual decision-making approaches. This approach taps into the existing system and tries to increase the importance given to stewardship, but does not change the system.

SGEF activities complemented ENRM activities in order to reach the grant's overall objectives. The integrated SGEF activities in TSP's program included the selection of women ambassadors from ENRM-trained community members. All selected women attended training sessions in advocacy and lobbying in their community. The women ambassadors then promoted and trained

[13] The following codes are used to identify the type of respondent quoted: GS = grant program staff; CL = community leader; FG = beneficiary in a focus group; GE = government employee; WH = female SGEF beneficiary or husband of a female SGEF beneficiary; F = female; M = male. Numbers differentiate each unique interviewee.

other community members in sustainable natural resource and land management practices—an approach that exemplified the expanded leadership opportunities that TSP promoted for women across communities. TSP also initiated community meetings and REFLECT[14] circles that offered community members training in land management practices and conducted regular discussions on the issues facing communities, including gender-based issues and their potential solutions. The discussions sensitized families to the importance of joint financial decision making. In response to the issues raised during community discussions, communities organized adult literacy classes, and started nurseries for young children. Finally, through the training delivered by TSP, members of VSL groups established independently of TSP's implementation in many communities were encouraged to move away from charcoal production as a source of income. The trained VSL groups allowed many women to contribute more easily to the financial well-being of their families, with important implications on family finances and household decision making.

Research questions addressed in this section

- How was the program implemented?
  - How did implementation change from what was planned, and why?
  - Which implementation factors supported or hindered the completion of the intervention?

B. TSP grant implementation

Four key principles guided TSP's activity implementation:

1. **Community and local participation.** TSP relied on local leaders, women ambassadors, and community members involved in implementation to promote the project's activities throughout the intervention area. It sought buy-in from local leaders, such as chiefs, GVHs, and clan leaders, who were involved in their communities in the delivery of training and implementation of activities designed to encourage and model commitment to the goals of the activities. The various local leaders recruited and trained women ambassadors to monitor and support ENRM activity implementation, involving them in all aspects of TSP grant activities. The ambassadors were instrumental in ensuring collaboration among community members, leaders, and government officials and in advocating, lobbying, and training other community members in sustainable natural resource and land management practices. TSP also encouraged beneficiaries to share lessons learned with others. This reliance on community participation ensured that capacity building, which was designed to aid sustainability after the end of the grant period, took place within communities.

[14] REFLECT stands for Regenerated Freirean Literacy Through Empowering Community Techniques and is a participatory technique to support constructive and open community conversations to address common development challenges.

2. Throughout activity implementation**,** TSP also intentionally **collaborated with local government officials** to ensure long-lasting support for the activities following the end of grant funding for the activities. Local government officials, including a forest assistant and a forest guard from the District Forest Office, Extension Planning Area staff, and agriculture extension development officers from the District Agriculture Development Office, were integral to the grant activities, sharing their knowledge, skills, time, and resources and building institutional knowledge about how the interventions work and why.
3. **Clan-based management.** TSP designed its clan-based approach to increase community ownership of project activities, thus not only ensuring more effective implementation of interventions but also increasing sustainability of the activities. Using the clan-based approach to natural resource management, TSP asked clans to demarcate as protected forest areas those pieces of their land not used for farming. Official and enforceable area management plans and bylaws would protect trees to be planted in those areas, along with the areas' natural resources. As part of activity implementation, the clan-based approach to land management also involved collective labor and shared materials among clan participants. Both men and women worked in clan forest areas. Women were more involved with beekeeping and the protection of forest areas that had beehives, while men seemed more involved in guard-type roles, patrolling the protected forest areas to ensure wood-cutting and other banned activities were not occurring. TSP focused on women for beekeeping activities as alternative income generating activities, but the division of labor for land management activities was not dictated by the grantee.
4. **Hands-on training.** TSP relied on in-person training to demonstrate new farming practices for farmers and encouraged trained farmers to work together to implement the new soil conservation practices on their own farms, facilitating faster and easier adoption and providing additional opportunities to practice new lessons learned. In addition to classroom-based training sessions, TSP grant staff worked alongside farmers in demonstration plots to train the farmers in land management practices such as contour ridge construction and tree planting techniques. After the training, participants worked together to carry out implementation on other participants' land. TSP's final report noted that "sometimes over 700 people would gather for contour marker ridge construction in one day at one working place" (p. 13). A participant noted that "we would just help each other as a group... and go to [an]other farm, and then another farm, and at the nursery it is the same thing, when we plant our seedlings and they grow, the whole village would go to plant" (FG_F7).

Overall, the implementation of TSP grant activities followed the specifications of the grant proposal. Interventions worked as expected, without major deviations, although the VSL activities required slight adjustments because they were more popular than expected in an environment of limited staff availability and funding constraints, both of which necessitated revisions to the timeline of activity implementation. For the VSLs, grant staff found that community members had organized VSL groups before the start of grant activities. The groups had not yet participated in formal training; instead, local leaders, who had learned about VSLs from other leaders already implementing them, initiated VSL activities and thus created more demand for VSL training than expected, especially when VSLs were not running optimally. In response, TSP tried to align existing VSL practices with TSP training standards, in addition to

starting and training groups from scratch. A more substantial deviation from the grant proposal's terms was a reduction in the number of GVHs in which TSP conducted interventions. Shortages of time and money meant that TSP was not able to implement its interventions in as many GVHs as planned or complete implementation in some communities. Year 3's increase in the size of TSP's grant somewhat attenuated this problem, permitting the continuation of programming. In Table III.1, we list the ENRM and SGEF activities that TSP implemented and their targets and completion numbers.

Table III.1. Overview of TSP grant activities

Activity[a]	Number implemented* (target), if known[b]
ENRM activities	
Training in sustainable land management and soil conservation practices, including • Contour marker realignment and box ridge construction • Vetiver grass planting • Tree planting	• 1,035 hectares of contour marker ridge construction (1,239.2-hectare target) • 156.3 hectares of contour ridge realignment (0-hectare target) • 285.6 hectares of box ridge construction (45-hectare target) • 354 kilometers of vetiver grass planted (250-kilometer target) • 974,000 trees planted (500,000 target)
Training in the use of mulch and organic compost manure	• 27.3 hectares (30-hectare target) for mulching • 805.8 hectares (10-hectare target) for manure • 2,697 male-headed households applying manure • 751 female-headed households applying manure (750 total target)
Establishing clan forest areas and village forest areas	• 150 clan and 27 village forest areas (55 target)
Promoting alternative income-generating activities (such as beekeeping) and a climate for a smart, fuel-efficient cooking stove	• 23 training sessions in apiary management conducted (10 target), 270 beehives distributed (100 target) • Construction of 4,983 fuel-efficient stoves (3,000 target)
SGEF activities	
Training in advocacy and lobbying for ENRM activities, including appointment and training of women ambassadors	• 11 training sessions implemented (3 target) • 366 women trained, 38 men trained (450 total target)
Establishing REFLECT circles to support project implementation	• 20 established (10 target)
Establishing early child development centers to promote ENRM activities and child literacy	• 4 established
Teaching adult literacy classes	Implementation number unknown from TSP reports
Establishing and training VSL groups	Implementation number unknown from TSP reports

[a] A description of each TSP grant activity is available in Appendix Table A.1.

[b] All numbers are self-reported in TSP's final report.

[c] TSP's final report states that "there are over 200 forest areas, regardless of size, that clans have demarcated for conservation and management," but just as frequently cites 150 and 27 as the number of clan and village forest areas, respectively. We have chosen to report that there are 150 clan forest areas and 27 village forest areas established, but it should be noted that figures in TSP'

To understand more fully how implementation worked and appreciate why the implementation of various activities did or did not succeed, we employed an implementation effectiveness

framework. We analyzed the case study data and, with the framework, classified implementation facilitators and barriers by characteristics of the intervention design, implementation process, and environmental factors and community characteristics. In Table III.2, we summarize the findings from this analysis.

Table III.2. Facilitators and barriers to TSP grant implementation

Category	Facilitators	Barriers
Intervention design characteristics	• Incentives aligned between environmental and economic benefits • Clan-based approach to implementation • Introduction of new soil conservation practices	• Short project timeline and activity delays • Inadequate funding to carry out project activities across all GVH areas
Implementation process characteristics	• Funding increase to meet goals and meet beneficiary needs	• Inadequate training in alternative income-generating activities, including beekeeping and VSLs • Lack of government certification of forest area land management plans and bylaws • Lack of technical expertise for developing forest area land management plans and bylaws
Environmental factors and community characteristics	• Favorable exchange rates in the first year helped TSP implement more activities • Matrilineal clan system facilitated group training sessions and adoption of SLM practices and clan-based forest areas	• Drought hindering growth of planted vetiver grasses • Armyworm infestation

1. Intervention design characteristics

The interventions designed by TSP aligned participants' economic incentives with broader environmental benefits. The economic incentives for participants' adoption of sustainable land management practices were strong facilitators of implementation success. Beyond environmental sustainability and increased hydropower generation, higher crop yields from improved soil conservation practices and increased income from sustainable income-generating activities gave participants opportunities to improve their livelihoods and further reason to adopt promoted activities. For example, beneficiaries saw firsthand that construction of box ridges and planting of vetiver grasses not only decreased sediment runoff but also increased yields. Other TSP-promoted activities had similar economic benefits. A community leader described the incentives that resulted from sustainable practices:

> *We were encouraged to make fertilizer from manure, which was less expensive... With [just a] little ... money people could cultivate their large plot and apply fertilizer [manure] in the right amount and eventually have high yields. Additionally, if we look at issues to do with land protection, we were encouraged to make contour bands and box ridges, which helped people ... we ... harvested high yields. (CL2)*

These favorable outcomes not only provided an important incentive for beneficiaries, but, as other community members observed the successes resulting from these practices, they also adopted them. Another community leader noted this phenomenon and stated,

> *A lot of families ... were following these methods, but ... when a new thing is just beginning it does not reach all the people at once. It reaches a few people only at first, and when other people see that those already involved are benefitting ... they become more interested in it. (CL1)*

Clan-based approach to implementation of natural resource and land management interventions. Another intervention design characteristic that facilitated implementation was TSP's clan-based approach to land and natural resource management, which included the demarcation of protected clan forest areas, and clan forest area land management plans and bylaws. The process of demarcating land increases clan members' security with respect to land and natural resource tenure and, as a result, motivates clans to conserve and protect their natural resources (TSP Final Report 2018). With the demarcation of clan forest areas, clan members demonstrated greater concern about destructive environmental practices taking place on their land, grew increasingly aware of what conservation activities were taking place on their land, and exhibited a greater willingness to take steps that would ensure sustainable management of their land. Another grant staff member noted that many conservation efforts at the village level fail because of lack of ownership but that the clan-based forest areas succeeded because "at [the] clan level ... people had [an] interest and commitment" (GS2). He paraphrased clan members' sentiments as follows: "[T]he land is ours, and whatever is occurring [on] that land is ours ... we want to take care of our forest" (GS2).

Not only did local ownership of conservation efforts increase, but clan members also saw their conservation efforts yield economic benefits. As one female beneficiary noted, "There is also beekeeping in the clan woodlots, and we have established a cooperative so we can sell [honey] and earn money ... the cooperative helps with finding markets for us to sell the honey. Through that, we are able to find money to keep at the VSL" (FG_F1). According to a grant staff member, community members understood the importance of forest land as a means to support income-generating activities, such as beekeeping, as well as its role in the reduction of sediment runoff, thereby improving hydropower generation throughout the catchment area.

TSP also created clan-level natural resource management committees to monitor and supervise land use and to develop and enforce management plans and bylaws. Clans developed and gained approval for 22 forest area land management plans and bylaws. The bylaws provided a means of enforcing the protection of forest areas, preventing encroachment and deforestation, supporting sustainable land use practices (such as tree planting), and encouraging alternative income-generating activities such as beekeeping. In a beneficiary focus group discussion, one woman described her perception of these bylaws as follows:

> *Bylaws have also been set, and they are known by everyone. Everyone knows that when they cut down a tree they will be fined, even if it is 25,000 [Malawian kwacha]…. These laws are helping in preserving the forests. The GVH has also taken a step in informing even neighboring GVHs ... and they all link up in establishing these bylaws. (FG_F3)*

The clan-based approach to land management also included collective labor and shared materials among clan participants. In total, participants created 1,238 hectares of contour ridge construction; collective labor was responsible for some of the construction, and individual labor was responsible for the rest. The distribution of shared materials for tree nursery maintenance (including wheelbarrows, pick axes, hoes, shovels, and watering cans) often took place at the clan level, and clans took charge of raising seedlings in nurseries to be planted on each household's land as well as in a clan's forest area.

Innovative soil conservation practices. A third intervention design characteristic that facilitated successful implementation was the effectiveness of new and sometimes innovative soil conservation practices. The practices seem to have been well suited to the environment, and many respondents recognized the positive impacts of the practices. For example, most focus group participants described their success with a tree planting system introduced by TSP, wherein trees are planted year-round, not only during the rainy season as was the typical experience of focus group discussants. TSP taught beneficiaries how to sow seeds in nurseries and then plant trees throughout the year, thereby increasing the number of trees they and their families were able to plant and increasing the chances that the trees would survive during the dry season.

Project tree nursery

Nearly all beneficiaries interviewed across the TSP grant area also spoke about the success of contour ridge construction, noting that farmers who implemented the techniques taught by TSP staff saw an improvement in their soil, with more water retained and an increase in their crop yield. One female farmer described the success of contour ridge construction on her land:

Ridges freshly constructed in a field in southern Malawi

> *Regarding blockage ridges, it is a very prideful thing because [before] no matter how much fertilizer we applied, we wouldn't harvest much ... but because of the blockage ridges, the soil is now consistent, so it shows that things are really changing, and the harvest is really changing, enough to eat throughout the whole year. (FG_F2)*

Other new and successful soil conservation practices that earned praise were the planting of vetiver grass and the use of manure for fertilizer. Many beneficiaries noted that even community members not involved in TSP's project saw the positive impact of these new soil conservation practices and were eager to implement them on their land.

Short grant implementation timeline and activity delays. Some design characteristics prevented the entirely successful implementation of TSP interventions. One such characteristic was the length of the grant implementation period. TSP had only three years for project initiation and implementation. In addition, funding issues meant that implementation did not start immediately upon grant award, exacerbating the tight schedule. Although activity implementation was scheduled to start in July 2015, actual implementation started in late October owing to delays in financial disbursement, according to TSP's biannual report in December 2015. In response, MCA-Malawi suggested, at the outset, the concentration of project activities in a few specified areas (Final Report). Grant staff interviewees also noted that intervention activities began in just 2 GVHs (out of a target of 27 or more) and gradually continued in 9 others thereafter. Therefore, the majority of intervention activities took place in the project's second and third years. These dynamics led to two problems. First, grant staff members felt that they needed more time for fully carrying out activities once implementation began. Second, the late-starting GVHs were not able to carry out their activities completely such that implementation was not uniform across GVHs. Some GVHs received all needed training in interventions and had more time for implementation, and others received less training and/or had little time for implementation.

Insufficient funding to carry out grant activities across all projected GVH areas. TSP's quarterly and final reports and grant staff interviewees noted that the TSP grant amount was insufficient to cover the planned work in TSP's expansive geographic target area. Activities such as tree planting were able to reach every GVH, but more involved activities such as contour ridge construction did not reach every GVH as a result of staff shortages. TSP reported that, with more funding, it would have engaged one field officer per GVH. The funding for TSP, however, was not sufficient to cover enough staff to train and supervise implementation throughout the entire catchment area. As a result, TSP did not serve as many GVHs as originally planned.

2. Implementation process characteristics

Funding increase to meet goals and meet beneficiary needs. One facilitator of implementation was MCA-Malawi's flexibility in allotting more funding to the TSP grant to ensure that the grant would achieve its objectives. In the third year of implementation, when TSP ran out of grant money, MCA-Malawi to some degree acknowledged TSP's inadequate budget by providing an additional $30,000 USD. Grant staff said that the money allowed the continuation of project

implementation, although the staff members were still not able to serve all target geographic areas because of time and funding constraints.

Inadequate training in alternative income-generating activities and VSLs. One implementation process barrier reported by intervention participants was inadequate training in alternative income-generating activities and VSLs. The lack of training was a particular concern in the case of the beekeeping activity. Even in a GVH where implementation started early, about a quarter of the beneficiaries who participated in a focus group stated that they did not think their training in beekeeping was adequate. One beneficiary expressed her frustration as follows:

> *In some issues like bees, we are just keeping [the bees] ignorantly without knowing where we are going. Right now those of us that are doing beekeeping, we haven't yet found the profit because we are just doing it ignorantly... . How do they take care of honey when harvesting it? How about when harvesting honey, what do we do? On that, we didn't receive any training. (FG_F7)*

In a separate focus group, another beneficiary concurred, noting that TSP provided beehives but offered no training in their construction, so, she noted, the hives could not be easily replaced should they ever be lost or destroyed. In contrast, neither grant staff interviewees nor the final grant report mentioned inadequate training as an issue related to the beekeeping activity; the final grant report discussed only positive outcomes associated with beekeeping.

A training issue identified by grant staff pertained to VSL groups. Although the TSP proposal called for establishing VSLs as an intervention activity, the VSL groups TSP trained were not established by TSP. Community members had heard of VSLs before the start of the grant period and were already operating VSLs when TSP began implementation (Final Report 2018). The VSLs established before implementation had not all had good training but were very popular—and more numerous than TSP expected. As a result, TSP assumed responsibility for training the VSLs that it had not started, but, given the demand for VSLs, TSP was unable to provide training for all the VSLs in the grant implementation area. When it did deliver training, TSP trained VSLs in VSL management as well as in ENRM practices, especially when their practices were not aligned with the goals of the TSP grant. For example, a grant staff member explained that, in one instance--in direct contradiction to the TSP grant's goals--members of a VSL were collecting firewood and producing charcoal in an unregulated manner in order to buy VSL shares and pay loans. According to the same grant staff member, TSP was able to train 17 VSL groups in the intervention area but noted that additional VSL groups could have benefitted from training; however, TSP did not have the time or funds to train the groups.

Lack of government-approved certification of forest area land management plans and bylaws developed by clans. Out of the 150 clan forest areas and 27 village forest areas demarcated, only 22 were reported to have received the government approval of their land management plans and bylaws required to make the plans and bylaws official and thus enforceable. Beneficiaries whose clans had certification spoke about the success of their management plans and bylaws, including their ability to hold offenders accountable for unsustainable practices in protected areas. For two reasons, the lack of official certification for

the majority of the demarcated forest areas gives rise to adverse implications for sustainability. First, the absence of official forest area land management plans could cause clans to ignore or even forget the established regulations. Second, the lack of bylaw approval makes the rules legally unenforceable. TSP cited a lack of government staff needed to review and approve drafted plans, along with the short program timeline, as the main factors underlying the lack of government certification of forest area land management plans and bylaws. As reported in TSP's final report, the program relied on just one Agriculture Extension Development Officer who supervised only one part of the program area after three other officers retired or transferred to other areas in the second program year.

Lack of expertise required for development of forest area land management plans and bylaws. An analogous barrier to implementation was the lack of technical know-how for clans' development of effective forest area land management plans and bylaws, along with TSP's apparent lack of capacity building to ameliorate the knowledge gap. As one grant staff member stated, "There is still need for some technical expertise in the development of the management plans and bylaws, which need to be certified by the district council in order to make them official" (GS1). If the need for expertise went overlooked during the design phase of the grant, the time and budget constraints identified above would have impeded any later funding modifications to find or build this expertise.

3. Environmental factors and community characteristics

Favorable exchange rates in the first year helped TSP implement more activities. In the first year of grant activities, grant staff took advantage of the devaluation of the Malawi kwacha against the dollar, providing the staff with more kwacha from the U.S. dollar budget than was expected under the budgeted exchange rate. With the windfall, staff members were able to undertake planned activities that they otherwise would have had to abandon because of the limitations of their overall budget. The windfall seems to have benefitted the fuel-efficient cookstove activity, which, according to two grant program staff members' independent reports, originally had enough funding for only one year. Both explained that the additional cash from the favorable exchange rate permitted full funding of the activity and allowed continuation over the next two years of implementation.

Matrilineal clan system facilitated group training sessions and adoption of SLM practices and clan-based forest areas. Clans in the area where TSP operated are matrilineal, with land distributed to clans based on matrilineal family lines. The clan system within villages in the grant area was a natural facilitator for group training sessions. Clan heads reported that they worked with their respective clans to ensure that they all attended training sessions and implemented SLM practices on their land. Grant program staff confirmed that clans frequently participated together in training sessions and implemented SLM practices together, ensuring that most households within the clan were engaged in project activities. As noted, the clan system within communities also allowed the development of clan-based forest areas.

Two environmental factors hindered implementation of TSP's activities–droughts and fall armyworm infestation. TSP's final report notes that, during the 2015 and 2016 droughts, the

lack of water adversely affected the growth of planted vetiver grasses, estimating that around 30 percent of the planted grasses died. TSP program reports for July and September 2016 also note that the drought resulted in the drying of bore holes and wells whose water helped maintain tree seedlings in nurseries. TSP program reports and community members stated that the lack of water delayed the planting of tree seedlings and led to a lower survival rates of seedlings.

A second significant environmental barrier was the appearance of fall armyworms. Several focus group participants noted that infestations significantly damaged their maize crops in late 2017, resulting in lower crop yields. TSP's December 2017 quarterly report also mentions fall armyworms as a hindrance, a problem not isolated to the TSP grant area but also reported by the UN in 2017 in the Blantyre, Machinga, Kasungu, Mzuzu, and Karonga Agriculture Development Divisions.

C. Findings on ENRM activities

Research questions on the effects of ENRM activities

- To what extent did the intervention lead to adoption of conservation agriculture and land management practices by farmers and communities?
  - Which land management practices are more readily adopted by farmers and communities, and why? Are there differences in adoption between male and female farmers?
  - Is it possible to differentiate between effective training approaches and practices that farmers are predisposed to adopt? If yes, are certain training methods associated with greater farmer adoption? Are different training methods associated with better results for male and female farmers?
  - What was the relationship, if any, among ease of adoption, farmers' perceptions of effectiveness, and farmers' tendency to adopt different practices?

By triangulating across data sources such as TSP's grant reports and interviews with TSP grant stakeholders, we examined TSP's outputs and its nascent outcomes from ENRM activities. We analyzed interviews with stakeholders such as grant participants, leaders within TSP's intervention area, relevant government agents, and implementers of TSP's grant interventions. Through experiences that were similar and dissimilar, we have built an understanding of whether, how, and why stakeholders adopted ENRM activities and how some outcomes emerged. Although it is too early to expect any outcomes to have changed in response to the interventions, we report on emerging changes we have identified.

Overall, grant participants' adoption of ENRM interventions in the grant activity area was widespread. Not all community members adopted ENRM practices, but beneficiary interviewees spoke positively about TSP's integration of ENRM practices in the communities as a consequence of training sessions and hands-on demonstrations open to any interested individual. Community members adopted soil conservation methods and clan-based land management

practices across the area where interventions were implemented. Climate-smart technologies did not reach as many people as the soil conservation methods, but among those who participated, adoption was high. However, community members did not adopt alternative income-generating practices as widely. In Table III.3, we present our key findings on ENRM adoption in TSP's activity area by research topic.

Table III.3. Main themes on adoption of ENRM practices by research topic

Research topic	Main themes
Adoption of SLM practices	• Generally widespread adoption of clan-based land management practices • Generally widespread adoption of soil conservation practices: Somewhat higher adoption of box ridge construction, contour ridge realignment, and tree planting; somewhat lower adoption of vetiver grass planting • Climate-smart technologies and alternative income-generating practices also widely adopted • Some evidence that women were more engaged at higher rates than men in soil conservation activities and adopted practices at higher rates, though men and women were integrated in all activities
Training methods	• Focused on a hands-on approach with demonstrations • Methods did not vary by gender–all interested men and women were invited to participate in training sessions • Collaborated with community leaders for training sessions (including chiefs, group village headmen, and clan leaders)
Characteristics of practices that led to adoption	• Visible benefits of a practice–both environmental and economic • Visible benefits spurred diffusion through communities

1. Adoption of SLM practices

Drawing on TSP grant documents and interviews with TSP grant staff, implementers, and beneficiaries, we note that adoption of SLM practices was high among activity participants.

TSP successfully worked with local leaders to establish demarcated forest areas. In 2018, TSP reported that 150 protected clan forest areas and 27 village forest areas were demarcated within communities. The beneficiary interviewees living near established clan or village forest areas reported higher engagement in the caretaking of the land than before demarcation and discussed the utility of clan forest areas.

Grant activity documents report that many clans established patrols that monitored demarcated clan forest areas with the aim of reporting intruders and preventing manmade bushfires. With the reduction of bushfires in forest areas, TSP reported that not only were beehives established but that fruit trees were flowering for the first time in years; in contrast, the fires in years past had destroyed the fruit tree blossoms before the trees could bear fruit. Clan Area Development Committees met regularly to exchange implementation experiences and to develop land management plans and bylaws for demarcated forest areas, although only about 20 percent of demarcated forests accounted for certified plans by the end of the grant period.

Community members established clan forest areas for a variety of reasons. As noted, many beneficiaries recognized the importance of the forest areas to ensure clans' access to a

sustainable source of timber. Some beneficiaries also used clan forest areas to support beekeeping activities, with the ultimate goal of realizing an income based not on the sale of wood but rather on the sale of honey and other hive byproducts. Government employees, grant staff, and beneficiaries also cited the importance of the clan forest areas as a means to encourage responsible land management practices, with clans doing their part to plant trees in the forest areas and protect existing trees in order to reduce erosion and runoff into the river, thereby improving power generation. Clans created official mechanisms to protect their natural resources within the forest area by developing land management plans and bylaws, encouraging the enforcement of sustainable land management practices, and allowing clans to assume responsibility for the protection of their land. Unfortunately, a lack of technical expertise in creating the needed official documents and the challenges associated with certification of the documents meant that only a minority of demarcated forests had the needed mechanisms in place at the end of the grant period.

There was no major reported difference between participation of men and women in activities related to clan forest areas. TSP grant documents note that, with the matrilineal kinship system in the implementation area, property rights are transmitted through female lineage; thus, women feel compelled to conserve the land and the natural resources for their children. However, in the areas targeted by the grant, the interviews indicated no major reported differences in the participation of men and women in the establishment and protection of clan forest areas. As observed by one government employee,

> *There was no difference [in participation by gender] … because there was power given at a clan [level]. [TSP] gave power to the head of the clan by telling them that "you can take a role in restoring nature." These clan heads had a gathering and were taught … to take a role instead of just leaving it all to women. (GE1)*

Overall, adoption of soil conservation practices was high among participants in TSP activities. Recipients of training reported that they learned about and adopted practices such as contour ridge realignment, box ridge construction, vetiver grass planting, and making fertilizer from manure. The interviews with TSP grant staff and beneficiaries revealed that the adoption rates for contour ridge realignment, box ridge construction, and tree planting were particularly high, given the visible impacts of moisture retention and runoff reduction on crop production. Other community members, observing the positive changes on participants' land, became interested in and adopted the practices as well.

According to interviews with beneficiaries, community leaders, and grant staff, **women adopted the soil conservation practices at higher rates than men.** Women largely shoulder the responsibilities that are most affected by environmental degradation. They typically collect water for the family and must travel farther distances when water is scarce. Women also collect firewood for cooking. Women are more likely than men to use the maize mills, which require electricity for operation and are affected by blackouts. In explaining women's higher adoption rates, several women interviewees cited the fact that electricity disruptions disproportionately affect women as compared to men.

TSP introduced energy-efficient cookstoves—a climate-smart technology—in the grant target areas. Beneficiaries trained in the construction and use of fuel-efficient stoves widely adopted use of the stoves in the grant activity area. TSP targeted 3,000 households for the construction and adoption of the stoves and in 2018 reported that 4,983 households had adopted the intervention. Women in the grant activity area are largely responsible for cooking and gathering the needed firewood and therefore represented the majority of those who adopted this climate-smart technology.

Energy efficient cookstove
(Source: TSP Final Report)

The main ENRM alternative income-generating interventions undertaken by TSP were related to beekeeping and crop diversification. TSP grant activity documents show that grant staff procured and delivered 270 beehives, along with containers for collecting honey, protective wear, and honey bottles, throughout the grant activity area over the three years of grant implementation. TSP originally planned to procure 100 sets of beehives, honey collection containers, protective wear, and honey bottles, but revised the target to 250 when the activity began. Grant activity documents also report staff conducting 23 training sessions on apiary management and honey harvesting and processing and 4 training sessions on marketing and bargaining for beekeepers. Government workers, grant activity staff, community leaders, and beneficiaries largely noted that TSP provided beehives in their communities and reported that it was mainly women who took part in the beekeeping activity across the grant activity area.

In general, beneficiaries adopted beekeeping as a sustainable means of making additional income in place of wood-based activities such as the production and sale of charcoal. A successful beekeeping business requires more than just a few days of labor; hives need to be maintained over the long term to produce honey. Engagement with and outcomes of the activity varied—some people were able to generate income and businesses from the activity, but others were not. Given that hives were kept in clan forest areas, they were particularly vulnerable to bushfires, and some beneficiaries noted that they lost their hives in a bushfire. Honey harvesting requires some amount of training, and some beneficiaries reported that they received no training and thus were unable to carry out the income-generating portion of beekeeping.

Even though some beneficiaries reported inadequate training, more beneficiaries reported success with their beekeeping businesses. As stated by one beneficiary, “We make the hives, we harvest when the time is right, then we package the honey in bottles and sell. This helps us make money and help our families as women” (WH_F1). Another beneficiary spoke about the success of her established beekeeping club and cooperative, stating, “We extract honey, and TSP

established cooperatives, which are groupings that buy honey from small clubs. So in the small clubs we sell honey to cooperatives" (WH_F2).

TSP also promoted the planting of legumes—mainly pigeon peas, groundnuts, and soybeans—as a means for farmers, especially female farmers, to supplement their income. In the grant area, legumes are not as common a crop as maize and thus can be sold at a higher price. Legumes also help improve soil quality by supporting nitrogen fixation to the soil. TSP provided drought-resistant legume seeds and encouraged beneficiaries to intercrop legumes with maize. Beneficiaries reported that they sold their legume harvests at market and took their profits to the VSL group, underscoring the benefits of the package of interventions. As one participant explained,

> *[TSP] taught us to plant different crops like brown pigeon peas, pigeon peas, and groundnuts. So when we follow the appropriate farming methods which they taught us, we end up having enough food for our families. We sell ground nuts and the other crops, and we keep the money at the village bank so that it shouldn't be squandered. When we receive the money from the village bank, we use it to buy things like iron sheets. (FG_F6)*

2. Training methods for SLM practices

TSP used a participatory, hands-on approach when delivering training for the most common grant activities. TSP relied largely on group in-field demonstrations to show farmers how to construct contour ridges, plant vetiver grasses, and plant and care for saplings in nurseries. The in-field demonstrations were complemented by some classroom-based instruction. Beneficiary interviewees frequently expressed appreciation for the in-field group demonstrations, which prepared them for later implementation of the activities in their own fields.

In addition, training mostly involved mixed-gender groups and was hands-on (in the first and third years of the project, selected trainings disaggregated participants by gender. In the first year, 73 men and 45 women participated in separate training sessions, and in the third year, 239 men and 186 women participated in separate training sessions). The more predominant mixed-gender, hands-on trainings groups not only learned by doing but also learned from each other. Given that most of the training included men and women together, training methods did not vary by gender. Demonstrations also included all interested community members and community leaders, who reported that they participated in training sessions in part to promote further the ENRM activities in their communities. As one beneficiary stated,

> *The [training] method proved to be easy, a lot of people joined because the work was being done in a group ... if everyone was doing it on their own, not many would have followed the practice because ... there can be some who understood the knowledge of doing the things while some didn't. (FG_M4)*

Appointed ambassadors were trained in SLM best practices and methods and acted as advocates for and sources of guidance about SLM practices. Participants widely reported that the ambassadors were an important source of knowledge when participants had questions. Drawing

on their expertise, ambassadors continued to train community members outside of TSP's trainings. Community members received consistent support from ambassadors who were viewed as experts on SLM practices. As one beneficiary described, "Ambassadors are people from this community and in [the] case someone didn't get something during the training, it was very easy to go back and ask" (FG_M6).

3. Characteristics of practices that led to their adoption

The **benefits of adoption**, both economic and environmental, appear to be the key factor that led to adoption of SLM practices. Many respondents reported higher crop yields, allowing them not only to provide more food for their families but also to generate more income from crop sales. A female participant spoke to the success of ridge realignment on her land and how the practice has improved her crop yields:

> *On retaining soil fertility and conservation agriculture, in the past we were getting [small] harvests because we did not know about the proper farming methods. But now we have learned the different farming measures ... we can say that [harvests] are ... much better than the past years. (FG_F13)*

Achieving a higher income not only motivated participants to continue implementing the practices, but also attracted the interest of nonparticipants and motivated them to adopt SLM practices as well.

Other participants spoke favorably about the **use of demonstration plots for soil and land management practices, which allowed any passerby to see for him- or herself the benefits** of SLM practice adoption. For example, a focus group participant noted,

> *[TSP] gave us maize seeds to plant, so I planted one seed per station and I applied the manure we talked about. People could go to the farm to see if the fertilizer or manure is working and indeed the maize produced a lot.... They also wanted to see which is [better] between fertilizer and manure. So everyone was going to see for herself or himself that manure was better. (FG_F12)*

TSP's tree planting, contour ridge realignment, and box ridge construction activities were particularly successful in part because of **TSP's clan-based approach**. Even though each activity requires a substantial amount of manual labor, groups of participants worked together on each other's farm, rotating in order to share the work among a group rather than leaving the burden of implementation to one person on his or her land. As one participant described,

> *We would be together as a group, and since the project was just coming in and most of us didn't know how to make a contour band ... we make them as a group. Today we would do someone's farm, tomorrow another one's, so that was also helping that we should work in a lot of farms. (FG_M2)*

Many beneficiaries reported that they adopted the fuel-efficient cookstove because it permitted **fast, reliable, and simple cooking**. As one beneficiary stated, the cookstoves are "very helpful

... beneficial and also a lot less work" (FG_F15). **The stoves use less firewood**, reducing the time women devote both to collecting firewood and cooking. As one focus group participant reported,

> *On the part of the cooking stoves ... you would find that [previously] one could go ... to the forest to pick firewood, and ... that bundle of firewood, [would last] maybe two [or] three days [before] it is finished. But ... [after] we made these cooking stoves, when we go to the forest ... you find that you have up to maybe three weeks without going again [to] pick dry firewood for cooking. (FG_F8)*

Several women beneficiaries reported that the fuel-efficient cookstoves freed up their time, allowing some women to attend to other household tasks. Women who used the stoves experienced the benefits firsthand, motivating them not only to continue using the stoves but also to encourage others to build and use them.

Others who adopted SLM practices discussed the **environmental benefits that motivated them**. Farmers widely reported that erosion was alleviated by their planting of vetiver grasses and trees (especially in clan forest areas). They also reported that soil was healthier as a result of box ridge construction, contour ridge realignment, and crop diversification and rotation. Beneficiaries also appreciated the increase in trees in their communities; communities consumed less firewood and practice more mindful and sustainable wood collection. Respondents widely reported that they developed a sense of ownership of the clan forest areas where much of the firewood collection was taking place, and also expressed their support of management plans and bylaws that made conservation of these areas enforceable. Participants reported that they understood the connection between limiting erosion on their farms and how improved erosion control both reduces runoff in the Shire overall and leads to fewer power disruptions. One female farmer stated,

> *We ... started working in environmental management because we realized the importance of conserving the environment. For example, if we cut trees anyhow, the rain doesn't fall properly, and that results in famine and soil erosion, which causes a community or a country to be less fertile. If there are no fertile soils, the result is that the produce is not much. So we followed this project because we saw the importance of conserving the environment. (FG_F14)*

Few farmers discussed any challenges associated with adopting SLM practices. Those that did mention challenges noted the time required to construct or realign ridges on farms, but they viewed the effort as work in the service of positive change. Instead, most discussed the relative ease of producing manure and mulch and the costs saved from no longer purchasing expensive fertilizer. TSP provided the necessary tools, such as hoes, to facilitate the more labor-intensive SLM activities, and farmers worked in groups to accomplish more demanding tasks.

D. Findings on SGEF activities

Research questions on the effects of SGEF activities

- To what extent did the intervention affect gender roles in the household and communities?
  - To what extent did the intervention lead to greater joint household decision making regarding land and natural resource management and household finances?
  - To what extent did the intervention lead to changes in division of labor on the farm and at home?
  - To what extent did the intervention lead to leadership opportunities for women? To what extent did the intervention promote female-headed household involvement in community decision making?

In this section, we examine the outputs and outcomes related to TSP's SGEF activities. As with our analysis of ENRM activities, we triangulated across data sources to build an understanding of the grant's SGEF outputs as well as of the grant's effects on changes in household decision making, division of labor, and women's leadership opportunities.

Overall, TSP found significant success with the SGEF activities that it implemented, according to community members who reported that they achieved key outputs and outcomes. In Table III.4, we summarize the main themes that emerged from our data analysis regarding changes to joint household decision making, division of labor, and women's leadership opportunities. Following is a deeper analysis of the three main SGEF research topics.

Table III.4. Main themes on adoption of SGEF practices by research topic

Research topic	Main themes
Joint household decision making	• VSLs supported joint household budgeting. • REFLECT circles helped sensitize men to the value and importance of women's voices in decision making. • Effects of SGEF activities extended to women having a voice in sustainable land management planning within the household and at the community level. • Some resistance to change remains.
Division of labor	• Some positive results arose from sensitizing men on this issue.
Leadership opportunities and community decision making	• Widespread increase in community leadership opportunities for women. • Male acceptance of larger leadership roles for women. • ENRM ambassador positions lead to greater leadership opportunities for women within their communities.

1. Joint household decision making

Male and female beneficiary interviewees reported that **VSLs, which were highly popular in the TSP grant areas, encouraged joint financial decision making in their households.** Beneficiaries indicated that VSLs allowed women—widely reported to be more active than men in VSLs—more economic power, offering them a way to help their families by conducting businesses. With more access to money and the ability to contribute to the family's financial well-being, women could also share in financial decision making with their husbands. An entrée into financial decision making has not always been available to women. One female focus group member described her experience with the money she acquired through a VSL group, noting:

> *The change is there because in the past we used to have the belief that the man is the head of the family, and when it came to everything to do with money, it was [up to] the head to make decisions. Currently when we find money we sit down together to discuss ... the problems we have in the family and what to prioritize or how best to spend the money. In the past, the man would just dictate what to do, and women would just go along with it, but now there has been change. (FG_F7)*

Women who spoke about participating in VSL groups and the resulting increase in shared decision making often reported that they and their husbands relied on budgets (a skill learned in REFLECT circle meetings) to arrive at an agreement on spending decisions. They also noted how their priorities are considered when they are involved in financial decision-making. A member of a different focus group provided examples of some priorities. "We make budgets with our husbands; for example, the money can be used to buy fertilizer and house items like plates and pots. Sometimes we also use the money to buy clothes for our children" (FG_F15).

REFLECT circles also played a part in encouraging joint decision making among families in the target area. REFLECT circle meetings encouraged discussion about community issues, including gender issues and the identification of problems and solutions. Discussions of issues led to the establishment of adult literacy classes and nursery schools, for example. As one beneficiary stated, REFLECT circles played a role in helping people to "be able to sit in public, and discuss ... issues of families, or [families'] future problems, [and] how we can end these problems" (WH_M1). REFLECT circles also helped sensitize men to the value and importance of women's voices. Another male beneficiary commented on the change in his own family after participation in a REFLECT circle sensitized him to the importance of household decision making.

> *As the man in the house, I would take the harvest to the market and I would not tell the woman the amount I have made ... I may just go spend the money and return home only to find the woman struggling with the children, [and] the woman did not have any chance to speak. But when [TSP] came and started enlightening the women, now most of us ... men ... when we sell our goods, we come back with the earnings and sit in the house with the woman, count the money, and budget properly. (WH_M2)*

A few respondents also discussed changes they made in their decision making in regard to land and natural resource management, noting that **they worked with their spouse to make**

decisions about planting and management of their farm. One respondent also noted that, even though she had been exclusively responsible for both farming and household chores, she now shared these responsibilities with her husband. He accompanied her to the fields in the morning and continued working in the fields while she returned to tend to household chores. Many respondents also reported that they worked with their spouse at the nurseries to plant seedlings. Men and women both widely reported their participation in the management of clan forest areas, ensuring responsible management by patrolling the land. It appears that, during the grant period, partners often shared land and natural resource management responsibilities, but few partners discussed their previous responsibilities, making it unclear if the interventions triggered the change in responsibilities.

Even though most stakeholder and beneficiary interviewees concurred that VSL groups and REFLECT circles contributed to changes in joint household decision making, some reported a continued resistance to change. One government employee reported that, even as women participated in VSL groups and generated income, men still exercised control over that income. A community leader and several beneficiaries also noted that the lack of change they observed in decision making could be attributable to the resistance of men in the community, rooted in part in the community's cultural traditions. Changes such as women's empowerment are complex and difficult to measure. Empowerment is a process manifested in all aspects of life, and social norms shaping possibilities change unevenly and usually at an exceedingly slow pace. The changes reported here are indicators of some change, but other reports indicate that change is uneven. The sustainability of these changes also remains an open question.

As mentioned, focus group participants and interview respondents widely reported that women were more active than men in VSL groups. The same pertained to REFLECT circles as noted in TSP program documents, interviews, and focus groups. Several stakeholders noted that the difference in participation likely reflected men's belief that the activities were for women.

2. Division of labor by gender

The reported effect of the TSP grant on the division of labor between men and women within households was not as widespread as that noted for joint household decision making. Some male and female respondents reported that TSP activities sensitized men and led to more equitable workloads in households and on farms. REFLECT circle meetings attended by both men and women served as forums for sensitization on gender issues, specifically issues faced by women in their communities and households, including inequitable workloads. Respondents, speaking about changes in the division of labor between men and women, most frequently discussed positive changes related to managing the farm (including farming and contour ridge construction by both women and men) and sharing child care responsibilities and household chores (such as cleaning and drawing water for the family). As one female respondent reported regarding work on the farm,

> *In the past when coming from the field, the woman would carry the tools, children, relish, and the man would just be walking. We are helping each [other] now; things have changed. Men are able to allow women to knock off early from the farm and*

start with the home tasks; and the man helps out when they get home. In the past, men would just sleep. (FG_F9)

Although many respondents reported positive changes in the division of labor within households, others reported no change or were silent when asked about changes in the division of household labor. The positive changes noted by many women and some men could be indicators of change underway for some types of labor. With the short implementation time frame, however, it is difficult to draw conclusions regarding TSP's lasting effects on the long-entrenched gender division of labor.

3. Leadership opportunities and community decision making

Community leaders, program staff, government workers, and beneficiaries reported an **overall increase in leadership opportunities for women**. Respondents attributed the change to TSP grant activities. TSP requested the appointment of and trained women ambassadors to increase the reach of TSP activities, particularly those associated with SLM practices. Group Village Heads appointed two women from each village who had been active in ENRM meetings to act as ambassadors. These ambassadors became experts in and encouraged community members to adopt SLM practices. They also monitored natural resource management in their communities and worked with government officials and community leaders to solve and prevent community environmental issues. This innovative approach to increasing the visibility of women in leadership positions was unique to the TSP grant and might explain the rapidly changing norms governing the acceptance of women in community leadership positions.

When respondents were asked about any increase in leadership positions for women in their community, **almost all began by discussing the important role of the ambassadors**. Several male respondents expressed their trust in the ambassadors, discussing the ambassadors' expertise in activity implementation. Several respondents pointed to the ambassadors as an important resource when they had questions about implementation. One male respondent stated that "before TSP came, in most activities men were taking [the] lead, but after being trained that even women have potential to lead... things are moving on 50/50. That is why even the ambassadors that were chosen are all females" (FG_M7). Several respondents similarly noted that the ambassadors instilled within communities an appreciation and respect for women in leadership roles, opening the door to more leadership positions for women.

Beneficiaries also reported an increase in the number of women holding positions as elected and appointed community leaders in committee, political, and religious positions and reported increased support among men and women for this change. Beneficiaries credited TSP for the increase in women's leadership positions, beginning with women ambassadors who showed that women are effective leaders. The sentiment has spread throughout communities as women have assumed more leadership positions. As one beneficiary noted, "[TSP] has brought a change. Nowadays, when there are activities, it is now a habit that when a chairperson is a man, the vice [chairperson] should be a woman or vice versa. We say there should always be gender equality when electing people in leadership positions" (WH_F2).

Furthermore, respondents reported an increased respect for women's leadership. Respondents viewed women as equally capable to men, which, according to some respondents, represented a departure from the past when men were seen as more capable in holding leadership roles. One woman reported that "In the past, women were being sidelined. They were perceived as people who cannot talk to a group which has men in it. Hence, most women would not be given any positions. We would only listen to the decisions of the men" (FG_F17). Several women reported that their husbands, who previously objected to their wives holding leadership positions, were now comfortable with their spouses assuming responsibility in the community and recognized the importance of their contributions. Women reported a sense of empowerment in taking on any and all leadership opportunities, and several women discussed growing comfort in voicing their opinions in community meetings as well as in their households.

On the other hand, **several respondents noted resistance to women holding leadership positions**, mainly from among men in the community. One respondent said, "Some men still think that women are inferior to them such that they are resistant to follow a woman who is leading them. We see it at meetings, when some men see that it is a woman addressing them they lose interest in whatever is happening at that time even if it is development-related" (WH_F3). The number of statements expressing resistance to women in leadership positions is far fewer than the number expressing support for women in these positions, but it still suggests the need for steps to be taken if women are to be fully accepted in leadership roles.

Women in female-headed households reported high involvement in activities, and respondents who discussed the participation of female household heads in activities perceived the women to be both capable and successful in implementation and to have gained more respect in the community. As one female head-of-household noted in a focus group, "As single mothers, we have done everything, whatever role we are given—land preparation, sowing, weeding, mixing fertilizer. We are able to [implement] it without leaving out anything" (FG_F16). A male respondent in the same focus group agreed with that statement and added that female heads-of-household were participating at higher rates and taking on larger roles in the project than their married counterparts. Given that implementation of TSP activities often was done in groups, one married respondent noted that female heads-of-household were able to "actively participate regardless of being single parents and not having any other person to rely on" (WH_F1). Another respondent discussed the change in the community's attitude toward female heads-of-household, saying that before TSP activity implementation, the participation of female heads of household in community activities was viewed as a scandal, later noting that now "most of these women are doing great things compared to what married women are achieving" (FG_F17).

E. Sustainability of grant activities

Research questions on sustainability of grant activities

- What are stakeholders' perceptions of the sustainability of grant activities to improve sustainable land management and address social and gender barriers?
  - What factors were driving beneficiaries to continue to adopt sustainable land management practices?

Given that we conducted interviews near the end of the grant activity period, we provide an interim assessment of the prospects of sustainability from the perspectives of grant stakeholders, implementation success, and outputs and outcomes achieved.

Overall, stakeholders were optimistic about the prospects for the sustainability of grant activity, given the adoption of interventions during the implementation period and the benefits thus far accrued to adopters. Many stakeholders cite the capacity-building activities conducted by TSP among both community members and local government officials as evidence that interventions can be sustained without the presence of TSP. Bylaws and land management plans certified by the government are other changes that stakeholders cite as evidence of the sustainability of interventions. Stakeholders also mention the benefits adopters have already experienced as reasons activities will be continued. Less completely optimistic stakeholders mention the possibility that interventions will not be sustained because of the lack of continued funding and resources, insufficient training, and presumably the reduced monitoring of activities by local government officials. However, the optimism voiced by most stakeholder interviewees moderates this skepticism.

We used a sustainability matrix to identify and examine four dimensions of sustainability and the factors that support or hinder them. We assess stakeholder commitment to ENRM and SGEF practices, resource availability, and political support. In Table III.5, we summarize our interim sustainability findings about factors that will support and hinder the longer-term sustainability of grant activities to improve sustainable land management and address social and gender barriers. Given that we collected the data serving as the basis of the analysis at the end of the grant implementation period, we acknowledge that it is premature to draw conclusions about sustainability, but our analysis identifies factors that will help and hinder the chances of ultimate success.

Table III.5. Facilitators and barriers to sustainability of TSP grant activities

Dimensions	Facilitators	Barriers
Stakeholder commitment to ENRM practices	• Committed local leaders • Trained and integrated local government officials • Trained ENRM ambassadors • Economic benefits accruing from adoption of ENRM practices • Forest area management plans and bylaws	• Lack of formal management plans and bylaws for some village and clan forest areas
Stakeholder commitment to SGEF practices	• Training and preparation for sustainability • Tangible benefits from SGEF activities, particularly for women	• Difficulty in affecting behavioral change within a short activity timeline
Resource availability	• Solvent VSLs • Functional REFLECT circles • Ambassadors and farmers trained in SLM practices and trained local government officials	• No guaranteed follow-on funding • Lack of technical expertise for developing forest area land management plans and bylaws
Political support	• Collaboration between political actors and communities	• Other donors' possible competing priorities

1. Stakeholders' commitment to ENRM practices

We considered four dimensions of sustainability, the first of which is stakeholder commitment to ENRM practices. Facilitators of this commitment include incentives, encouragement from others, and bylaws developed by stakeholders. The absence of structural elements that support commitment to practices can also hinder commitment to ENRM practices, thus adversely affecting sustainability. Here, we look at six facilitators and barriers to stakeholder commitment.

Committed local leaders. Local leaders discussed their involvement in activity implementation. TSP staff did not assign specific roles to these leaders, yet the leaders felt compelled to become involved in activity implementation so that community members would also commit to adopting new practices. A group village headman discussed his involvement with activities and later noted that chiefs, clan leaders, and other group village headmen followed suit and were similarly involved in training sessions and other activities in their community. One group village headman (GVH) noted,

Interview conducted in a grantee tree nursery

> *In this TSP project ... I saw that I had a huge responsibility. I had a duty to be involved and work with these people because if I was absent from these activities, then it would show that I was not very serious. I wanted the people to see that I was serious about it and being their leader as I take a hoe and do some of the work. Then they saw that if their leader was actually getting involved in this work, then this indeed is an important thing. (CL1)*

Local leaders also discussed their willingness to enforce the bylaws developed to protect clan forest areas. They cited examples of enforcement, including the imposition of fines on those who ignored regulations governing the protected areas. Community leaders' support not only of the enforcement of regulations but also of the adoption of various practices signals their endorsement of ENRM practices and could support community members' commitment to sustaining SLM practices.

Trained and integrated local government officials. The knowledge that government officials acquired through training will remain in the local area once grant staff depart, at least for as long as local government officials remain in the same post. Local government officials' investments in TSP activities might also motivate their future support of the activities, if the officials are able to muster endorsement of the activities. These government officials can play a crucial role in encouraging the commitment of local community members to TSP activities through reminders about the importance of SLM practices and through the delivery of technical assistance to expedite implementation.

Trained ENRM ambassadors. Training ENRM ambassadors in all grant activities and including them in meetings with community leaders allowed the ambassadors to become experts in intervention implementation. The ambassadors will remain in their communities and can continue advocating, lobbying, and training other community members, shoring up stakeholders' commitment to ENRM practices, and helping ensure sustainability. Stakeholders reported that they think the ambassadors' presence will allow the grant activities to be sustained after the TSP grant ends. A government employee believed that grant activities would continue beyond the grant's end "because...the ambassadors [TSP] put in place...still have the other activities and skills, [and] they can continue teaching others" (GE2). A female beneficiary similarly noted that "[TSP project activities] will go on as long as. . .the ambassadors. . .still encourage people regardless of the fact the project ended" (WH_F2).

Economic benefits from adopting ENRM practices. The visible benefits of the adoption of TSP practices will help support stakeholders' commitment to sustaining ENRM practices. Beneficiaries widely agreed that, as long as community members continue experiencing the environmental and financial benefits of adopting TSP activities, implementation will continue without TSP support. Participants who implemented TSP activities reported higher yields as a result of box ridge construction and the production and use of manure fertilizer on their fields. Many benefitted directly from their participation in VSL groups, witnessed changes in their households as a consequence of the teachings of REFLECT circles, and experienced a decrease in time spent preparing food when they used the fuel-efficient cookstove introduced by TSP. One

beneficiary summed up the sustainability perception by stating, "We will continue with the project because we know its benefits" (WH_F3).

Forest area management plans and bylaws. Interviews with government employees, grant staff, community leaders, and beneficiaries suggest that the government approval of bylaws and management plans that a minority of clan forest areas attained stood out as facilitators of those stakeholders' commitment to ENRM practices. By developing management plans and bylaws, clans and villages took ownership and control of clan and village forest areas and ensured that regulations would help sustain those resources. TSP activities that encouraged clans to take control of forest areas also instilled in clans the desire for responsible management of natural resources, motivating community members' involvement and investment in resource conservation. Respondents reported that prior to demarcating clan forests, they were unaware of the activities taking place on their land. With approved plans and bylaws, these forests can be legally protected.

Lack of formal management plans and bylaws for some village and clan forest areas. In contrast, by the end of the grant period, most clans and villages with forest areas had not developed or achieved approval of their management plans and bylaws. Even though community members established 150 clan forest areas, only 22 management plans and bylaws became official and legally enforceable during grant implementation. Clans and villages, rather than grant staff, were responsible for developing and enacting the lasting safeguards for their forest areas, and many clans did not have the capacity to see this process through. Without these management plans and bylaws, regulations governing the use of natural resources within forest areas are non-enforceable and thus face a higher risk of being disregarded or discarded. The lack of formal plans and bylaws makes it easier for stakeholders' commitment to dissipate, thus eroding the prospects for sustainability.

2. Stakeholders' commitment to SGEF practices

An analogous dimension of sustainability for SGEF practices is stakeholders' commitment to the implemented SGEF practices. Facilitators of this commitment include trained and committed community leaders and community members, trained ambassadors capable of continuing to lead SGEF activities, and the realization of tangible benefits of SGEF activities. A barrier to the sustained commitment to these practices is the difficulty in affecting long-lasting behavioral change within a short period. Here, we look at three facilitators and barriers to stakeholder commitment to SGEF practices.

Training and preparation for sustainability. TSP worked closely with local community leaders and community members while implementing SGEF activities, ensuring that they benefitted from sufficient training to continue activities after the end of the grant period. Members of communities received training in the management of VSL groups, facilitation of REFLECT circles, and leading adult literacy classes and nursery schools. One female participant in a focus group reported that she was aware of sustainability issues during the implementation period. She said, "TSP used to remind us regularly that 'this is a project and it will end. What potential do you see in yourself to sustain all the activities that we have been doing together

without our help?' then we would discuss what we can do" (FG_F11). Both male and female participants in that and other focus groups and interviews agreed that activities would continue even without TSP support because they and their community leaders had all received the needed training to ensure sustainability. Preparation for sustainability also included the establishment and preparation of the groups (VSLs and REFLECT circles) that had been created or trained for the implementation activities.

Trained ambassadors, experts in ENRM practice implementation, and some experts in facilitating REFLECT circle activities are also likely to help sustain the effects of SGEF activities. As ambassadors evolved into leaders in their communities, male and female respondents reported an increased respect for and faith in women leaders and an expectation that their continued presence and leadership after the end of the grant period could continue to inspire commitment to the adopted SGEF interventions. The training and preparation of community members and leaders may promote stakeholders' long-term commitment to and the sustainability of SGEF practices.

Tangible benefits from SGEF activities, particularly for women. Female respondents who discussed participating in VSL groups reported exclusively positive experiences, especially regarding their increasing access to alternative sources of income beyond charcoal production. Women's favorable experiences with VSL groups and the ways that the groups benefitted families appear to have reinforced women's ongoing commitment to VSLs as well as the groups' sustainability. One of the women beneficiary interviewees explained, "We plan on continuing with [the] village bank because we are the ones benefitting from these, it helps in our small businesses" (WH_F1). Beneficiary interviewees widely agreed that VSL groups would continue to function, in large part because community members have greatly benefitted from participation in the groups. Beneficiaries also reported positive outcomes from REFLECT circles, including increased literacy among community members, citing it as a motivating factor for continuing REFLECT circles.

Both male and female respondents reported that they were eager to see the trend of women in leadership positions continue, especially after seeing the success of women who assumed such positions. Community members recognized the effectiveness of women leaders and the positive changes that have resulted from their leadership, which can facilitate increasing leadership roles for women in the future. The positive experience community members have had with women in leadership as well as the positive experience women have had with these types of roles becoming open to them are benefits of SGEF activities that might help reinforce stakeholders' commitment to continuing the SGEF activities promoted by TSP. Female leaders' visibility could also be a reminder, an inspiration, and/or a prod to support continued commitment to SGEF practices.

Even though not many respondents discussed their commitment to sustaining changes in their households with respect to decision making and the division of labor, several did note positive changes in their families, including men's participation in household tasks and an increase in the time available to women to pursue activities beyond the traditional ones. These positive changes (observed by both women and men) could be enough to ensure families' commitment to shared decision making and a more equitable division of labor. However, it is also possible that if men

fail to view these changes as beneficial to themselves and they are not sensitized when it comes to women's traditional roles, men's commitment to shared decision making and an equitable distribution of labor may evaporate. Several respondents mentioned that many of the family norms surrounding decision making and the inequitable division of labor are the result of long-held cultural practices and beliefs and as such may be more deeply rooted and difficult to affect over the long term with a short intervention.

3. Resource availability

We considered resource availability as a third dimension of sustainability. The end of grant activities hinders the sustainability of TSP-promoted activities that require financial and technical resources. With no guarantee of a follow-up project to take TSP's place, the loss of TSP resources is the most obvious barrier to sustainability. The previously mentioned lack of community-based technical expertise for developing forest area land management plans and bylaws is a second barrier, yet respondents mentioned resources that are available to support the continuation of other activities, including solvent VSL groups, functional REFLECT circles, ambassadors and farmers trained in SLM and SGEF practices, and trained local government officials. Here, we look at six facilitators and barriers (in that order) to the resources needed to sustain grant activities.

No guaranteed follow-on funding. Most respondents acknowledge that the lack of guaranteed follow-up funding for continuing TSP's activities is a hindrance to the sustainability of grant activity. Beneficiaries were aware that project resources (such as the provision of hoes, shovels, and beehives) and technical assistance delivered by grant staff would last only as long as TSP remained active in the area; similarly, local government officials reported that the end of the grant would directly affect them as well. One government employee explained that, without TSP support, government staff who have worked on grant activities will face both financial and logistical resource constraints, including constraints on future employee availability for technical assistance. The absence or limited availability of technical assistance will hinder the continued implementation of grant activities, especially those requiring the acquisition of specialized materials or tools.

Lack of technical expertise for developing forest area land management plans and bylaws. As mentioned, not all clans and villages with forest areas have developed management plans and bylaws. Grant staff identified as a barrier clans' lack of technical know-how to develop effective forest area land management plans and bylaws. The continuing lack of know-how after the end of the grant makes it a barrier to sustainability. Without the development and approval of management plans and bylaws, regulations governing the use of natural resources within forest areas are non-enforceable and face the risk of total disregard or elimination. One grant staff member added that the development of plans and bylaws in the many areas without them could stall without continued support, posing a risk to the sustainability of SLM practices.

Solvent VSLs. TSP did set up some systems for communities to generate resources to facilitate the continued implementation of activities after the end of direct support. TSP staff reported that properly trained VSL groups should be able to function and remain financially sound without

outside support. Beneficiary interviewees widely agreed that VSL groups would continue to function, in large part because the beneficiaries have benefitted greatly from their participation in VSL groups, as already noted. VSLs have succeeded in generating funds for community members and, at least theoretically, could be a source of resources to continue TSP-promoted activities, such as literacy classes or tree planting.

Functional REFLECT circles. REFLECT circles, like VSL groups, were developed in such a way that community members could largely assume responsibility for their continuation. As one grant staff member stated, "The REFLECT approach is there to assist the communities to identify their own problems and come up with locally available solutions" (GS2). As a community resource, REFLECT circles lend themselves to sustainability by drawing on abilities within the communities. They can even facilitate the sustainability of other TSP-promoted practices, such as literacy and ENRM practices. Grant staff also reported that the District Community Development Office was adopting REFLECT circles, thus sending an optimistic message about the continuation of the circles.

Ambassadors and farmers trained in SLM practices and trained local government officials. Community members will be able to tap important resources in the form of trained ambassadors, farmers, and local government officials who can continue to encourage and train others to adopt grant activity practices. Leaving these resources in the communities after termination of the grant was a TSP design strategy intended to facilitate sustainability.

4. Political support

The fourth dimension of sustainability is political support. The presence of political support can greatly facilitate the sustainability of grant activities, but its absence can hinder it. Here, we look at one facilitator and one barrier that could affect the sustainability of TSP activities.

Collaboration between political actors and communities. During the delivery of training and the implementation of activities, TSP worked closely with community leaders and political actors, including staff in district community development offices, area development committee members, the district council, and extension workers. Government official interviewees spoke about the support they received from and participation of local community leaders, with one stating, "The chiefs are always there when doing ... activities. They call people on our behalf and ... [while] working ... they come out and stay there, ensuring that the program has ended well" (GE2). Grant staff reported that government workers, community leaders, and community members were trained together in part to facilitate continuing collaboration and the ongoing support of local government.

Possible competing priorities with other donors. Some respondents spoke about other organizations working in the grant area. However, the possibility that political attention would be transferred to other organizations risks the sustainability of TSP activities.

IV. UP CASE STUDY FINDINGS

Summary of key findings

Implementation (RQs 1 and 2)

- UP implemented most of its ENRM and SGEF activities as planned. The few changes included adding more REFLECT circles in response to high demand, using lead farmers to deliver trainings instead of using village extension multipliers, and switching from an efficient charcoal production pilot to inexpensive biogas digesters.

Findings on ENRM activities (RQ 3)

- Most beneficiaries agreed that the majority of people who attended trainings adopted ENRM activities. Both men and women participated, but most participants were women, although this was not intended.
- The biggest reason given for adopting ENRM activities was understanding their benefits and realizing how they could help transform livelihoods. There was some resistance at first, however, and some beneficiaries only adopted activities after they saw their friends or neighbors benefiting from them.
- Having local lead farmers who encouraged others to participate, demonstrated the activities, and answered questions was instrumental in validating benefits and getting more people to adopt activities.
- One of the most common reasons given for not adopting the activities was a lack of materials or money to buy materials or hire labor to implement activities. Another common reason was that some activities were seen as too labor-intensive, such as making contour bands and closing up gullies.

Findings on SGEF activities (RQs 4 and 5)

- SGEF activities and gender concepts were widely adopted by participants. Village banks were the most commonly adopted activity, with men, women, and even youth participating. Many women generated income through, for example, VSLs and business activities. Understanding the benefits these activities could bring, especially financially, was the biggest motivator for adopting these activities.
- Participants report that there is now more joint decision making in households than there was before the grant activities, especially on finances, farm work, harvesting, and participation in community activities.
- There is a more egalitarian division of labor in many families, with both men and women taking part in household activities, and children are being taught different norms.
- There is a more equal distribution of men and women in leadership positions than there was in the past.

Sustainability (RQ 6)

- Beneficiaries were optimistic about continuing most activities because they find the practices to be beneficial and impactful. Some of them said that even though they haven't experienced the benefits yet, they are optimistic.

United Purpose (UP) in Malawi was one of the 11 local organizations selected by MCA-Malawi to receive grant funding and implement the Environmental and National Resource Management (ENRM) project. UP received a total of $836,064 to implement a project titled Improving Catchment and Natural Resource Management for Sustainable Livelihoods. The three years of grant activities started in August 2015 and ended in July 2018.

The goals of the UP grant were to achieve sustainable behavioral change; reduce land degradation, deforestation, and soil erosion; and contribute to the overall goal of the ENRM grant facility—to improve the efficiency of hydropower production.

UP identified five focus areas that relate to the overall goals of the grant:

1. Women and men in the catchment communities participate more effectively and equitably in local environmental and natural resource decision making and policy implementation
2. Women and men in the catchment communities have improved collective and individual knowledge and skills to sustainably manage and use natural resources, especially forests and catchment areas
3. Women and men have higher incomes, whether agricultural or natural resource-based, and higher productivity through the promotion of sustainable agricultural and natural resource practices and market opportunities.
4. Women have the knowledge, skills, and power to effectively participate in and influence decision making at the community and household level about land and other assets.

For this case study, we analyzed grant documentation, reports, and primary data. Grant documentation and reports included UP's original proposal (submitted to MCA-Malawi in July 2015); UP's end-of-grant report (submitted to MCA-Malawi in August 2018); and a final review report produced by an independent consultant (submitted to MCA-Malawi in September 2018). Primary data included transcripts from five focus groups and 16 interviews conducted by Kadale Consultants, a local data collection firm, in partnership with Mathematica. The focus groups had an average of 11 grant participants each. The interviews were conducted with UP grant staff, government agents, community leaders, lead farmers, and individual beneficiaries during the period June–August 2018.

A. UP interventions and program logic

Research question addressed in this section

- Which intervention was implemented, and what was the program logic underlying it?

Before implementation, UP conducted a needs assessment and stakeholder and resource mapping in the targeted communities to identify challenges that would guide its design and implementation of grant interventions. In addition to its own research, UP consulted the baseline

assessment report produced by an MCC contractor, LTS International, to identify villages that had the highest impact on the Shire River.

These processes revealed the following challenges:

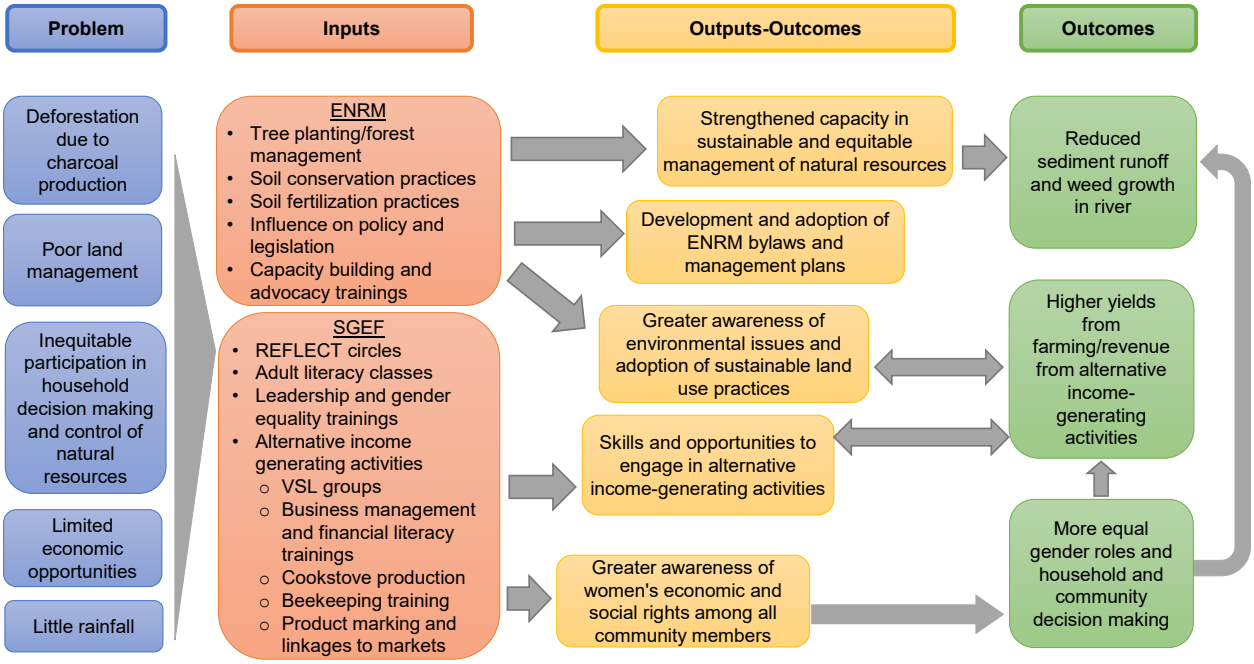
- ***Limited economic opportunities***. High levels of poverty and a lack of economic opportunity cause 60 percent of the households in the target area to rely on natural resources (such as charcoal and firewood, for example) for their livelihoods (UP's proposal).
- ***Deforestation caused by charcoal production*****.** Illegal collection of wood for charcoal and firewood have led to widespread deforestation in the area, perpetuated by unenforced regulations. Balaka has a growing number of charcoal producers and firewood vendors (20 percent, or one in five households, according to UP's proposal), most of whom are operating their businesses illegally. Women are particularly affected by deforestation, traveling longer distances in search of firewood to cook for their families, and in some cases they suffer domestic disputes and violence if they are gone longer than expected.
- ***Poor land management*****.** Cutting down trees for charcoal and firewood affects the soil, causing erosion and loss of soil fertility on farms. This leads to lower crop yields and hunger in communities**.**
- ***Little rainfall.*** Balaka is an arid area and usually doesn't have adequate rains.
- ***Inequitable participation in household decision making and control of resources.*** Although the target areas are predominantly matrilineal, many women have no control over and no involvement in decision making about their household and natural resource assets (such as land). In Balaka, more than 35 percent of husbands control their wives' earnings, and 71 percent of women earn less than their husbands do (UP's proposal).

  To help overcome these challenges, UP implemented a package of interventions that included both ENRM and SGEF activities, although the focus (70 percent of the budget) was on ENRM, specifically tree planting and forest management trainings, natural resource management and conservation training, interactive drama (also referred as Theatre for Development), establishment of management plans and bylaws, and capacity building and advocacy training. (Appendix Table A.2 contains a description of each ENRM and SGEF activity implemented by UP.) The SGEF activities UP implemented were REFLECT circles, adult literacy classes, leadership and gender equality trainings, VSL groups, business management training, financial literacy training, cookstove production and marketing, beekeeping training, product marketing and linkages to markets, efficient fuel energy promotion, and development of other off-farm income-generating opportunities for youth.

The Shire River and surrounding mountainous landscape

Based on grant documentation and staff interviews, we developed a logic model to summarize UP's program logic for all of its grant activities (Figure IV.1). The ENRM and SGEF activities UP implemented under the grant (**inputs**) were designed to raise awareness of women's rights and environmental issues, which would lead to higher participation of women in community and natural resource decision making, adoption of sustainable land use practices, and less reliance on natural resources through engagement in alternative income-generating activities (**outputs**). The grant activities were expected to lead to three complementary **outcomes**: (1) on the social and gender side, greater awareness of women's economic and social rights would increase women's access to productive resources and lessen gender inequality; leading to and supporting (2) on the environmental side, changes in land practices that were expected to reduce sediment runoff and weed growth in the Shire River Basin; and (3) on the household livelihoods side, changes in farming practices and economic activities that were expected to increase household income. In the longer run, the interventions were intended to both improve hydropower generation and reduce poverty levels.

Figure IV.1. Program logic for UP's grant activities



UP set a target of reaching 2,500 households in the Upper Chimwalire and Upper Chilanga catchment areas (which comprise 72 villages and three agricultural extension planning areas). UP also reported that 58 percent of the beneficiaries of grant activities were female-headed households.

B. UP grant implementation

Research questions addressed in this section

- How was the program implemented?
  - How did implementation change from what was planned, and why?
  - Which implementation factors supported or hindered the completion of the intervention?

UP's activity implementation was mainly guided by three key principles:

1. Establishing buy-in upfront from the local authorities identified during the stakeholder and resource mapping exercise, including the district executive committee, the district forestry office, the district agriculture and development office, the district community development office, and traditional leaders.
2. Collaborating with local government officials. Government partners were involved in both the planning and the implementation of activities (by providing trainings, for example). One UP grant staff member noted that the team was small, and relied on government partners to help implement and monitor activities. In exchange, the UP team supplied them with necessary resources such as fuel and/or lunch allowances.
3. Trainings built around REFLECT circles and lead farmer system. UP employed several training approaches: REFLECT circles, facilitators selected from the area; transect walks (walks throughout a village with community members to take stock of resources and needs); Theatre for Development; forming and facilitating local committees (for example, village natural resource management committees, or VNRMCs); and the lead farmer system. Other training methods described by one government official included group discussions, role plays, brainstorming, and Q&As, among others.

   UP employed the lead farmer system extensively. UP selected several farmers from different villages, and government extension workers trained them to be lead farmers with the expectation that they would return to their villages and teach other farmers. Lead farmers promoted sustainable land, soil, and water management practices and were trained to train others on climate smart farming technologies such as water harvesting structures and ridge realignment.

   As a standard, one lead farmer was expected to have no more than 20 follower farmers. There was also a lead farmer network: lead farmers from different areas would meet once a month and discuss the progress in their areas. Lead farmers who were interviewed for this

study said they attended classes for two days and then practiced for three days on a farm. They also received an allowance for attending the trainings. After they finished the training, lead farmers returned to their villages and asked their chiefs to organize meetings with the whole community so they could share what they learned. They also used demonstration plots to illustrate farming techniques and allow farmers to practice. After practicing on the demonstration plots, "follower" farmers could go home and apply the methods to their own farms and call upon the lead farmers if they had any questions. Those demonstration plots were often placed by the side of the road so that passersby could see the promoted practices, such as new ways to construct ridges, and their benefits, such as how well maize grew.

The package of interventions UP implemented and the scale of implementation are shown in Table IV.1. As part of the ENRM activities, UP trained 102 lead farmers in conservation agriculture; in turn, they trained 2,994 follower farmers (exceeding the target by 50 percent). The grantee also planted over 250,000 trees, which was five times the initial target. In addition, the grant sensitized 5,291 community members on rights and responsibilities in land and resource management and on gender issues through interactive drama (also known as 'Theatre for Development' (TFD)). As part of the SGEF activities, UP established 28 REFLECT circles and trained women on gender equality and leadership. Also under the grant, 236 community members graduated from adult literacy classes. The grant's SGEF activities supported alternative income-generating by establishing 140 VSLs, providing business management and financial literacy training to community members, establishing cookstove production and marketing, and supporting beekeeping through training and distribution of beehives. **By the end of the grant period, UP reported that it had reached 5,089 households, far surpassing its target of 2,500 households**.

A portable fuel-efficient cookstove supported by UP

Table IV.1. Overview of UP grant activities

Activity[a]	N implemented[b]
ENRM activities	
Tree planting and forest management trainings	258,393 trees were planted. (Target was 48,000 trees, later revised to 250,000). 29,497 people participated.
Training on conservation agriculture techniques	102 community members were trained as lead farmers; 2,994 follower farmers were trained by lead farmers. (Target was 1,938 follower farmers.)
On-farm soil and water conservation training	
Off-farm soil and water conservation and catchment management training	4,975 empty hessian sacks were provided for gully reclamation initiatives; Check-dams along a stretch of 17,005m were constructed through the grant.
Interactive drama/Theatre for Development (TFD)	An estimated 5,291 community members were sensitized.
Establishment of management plans and by-laws	Eight catchment management plans were developed; eight orientation meetings were held with 254 people.
Capacity building and advocacy trainings	UP provided capacity building trainings to eight Village Natural Resource Management Committees (VNRMCs).
SGEF activities	
REFLECT circles	28 REFLECT circles were established: 4,254 people participated; 6,567 meetings were held.
Adult literacy classes using the REFLECT circles and REFLECT methodology	236 community members (197 women and 39 men) graduated from literacy classes.
Leadership and gender equality trainings	323 women were trained on leadership and assertiveness; 93 more women were trained on leadership, nursery management and care, and tree planting. Some of these 93 women served on executive committees: 32 in VNRMCs, 32 in catchment conservation committees, 21 in area development committees/village development committees, and 19 as gender ambassadors.
Income-generating activities	
Village savings and loans (VSLs)	140 VSLs were established; 3,049 people participated.
Business management	2,108 people were trained.
Financial literacy	1,379 people were trained.
Cookstove production and marketing	5 cookstove production groups established; groups molded and sold 14,317 clean cook stoves. (Target was 2,700 cook stoves)
Beekeeping	65 people in 20 groups were trained.
Product marketing and linkages to markets	Five beekeeping groups were linked to a large honey distributor.
Efficient fuel energy promotion pilot	40 charcoal producers from environmentally degraded hot spots participated in pilot of sustainable charcoal production; 30 community members were trained in the construction and use of inexpensive polyethylene biogas digesters.
Supporting development of other off-farm income-generating opportunities for youth	32 people in two groups were trained in mushroom production.

Sources: UP's end-of-grant report (submitted to MCA-Malawi in August 2018); interviews with grant staff.

[a] A description of each UP grant activity is available in Appendix Table A.2.

[b] When target data is available, it is also shown in this column.

UP noted that some of the interventions were implemented in targeted geographic areas, others more broadly across the implementation area. For example, the cookstove production activity was limited to the areas that had good quality clay so that the molded cookstoves wouldn't break easily. The beekeeping activity was restricted to areas that had village forests where people could hang beehives. REFLECT circles and climate smart farming trainings (including tree planting, forest management, conservation agriculture, and other social and water conservation practices), on the other hand, were implemented across the intervention areas.

UP made several adjustments to the implementation plans during the grant period.

- After implementing 14 REFLECT circles in the first year of the grant, UP noted a high demand in the community and adjusted its budget to train more facilitators and form more REFLECT circles (for a total of 28).
- UP indicated in its proposal that it was planning to use village extension multipliers to implement the ENRM activities, but during the initial stages of implementation, UP was advised by the local government that the use of village extension multipliers created a conflict between the extension workers under the District Agriculture Development Office and the communities. The issue as described by one grant staff member was that training and paying village extension workers under the grant would have been viewed as "over-empowering" them and putting a community member on a "bit higher level than this government employed extension worker" (GS_1). To be responsive, UP shifted from planning to use village extension multipliers to using lead farmers.
- Under the efficient fuel energy promotion pilot activity, UP initially conducted trainings on efficient charcoal production (an activity approved under their proposal). Later in the implementation period, MCA-Malawi advised UP that the activity was not sustainable given the shortage of trees for making charcoal in the communities, and it would only encourage people to cut more trees. Instead, UP looked into biogas as an alternative source of energy and piloted inexpensive biogas digesters.

These changes notwithstanding, UP was able to implement most of the planned activities under the grant. As the numbers in Table IV.1 suggest, for many of the trainings related to ENRM and SGEF activities, UP trained more women and men than it had hoped.

To identify the factors that supported and hindered the implementation of the interventions, we analyzed the case study data and then used an implementation effectiveness framework, classifying implementation facilitators and barriers according to whether they were characteristics of the intervention design, the implementation process, or the community, or were environmental factors. Table IV.2 summarizes our findings, which are detailed after the table.

Table IV.2. Facilitators and barriers to UP grant implementation

Category	Facilitators	Barriers
Intervention design characteristics	• UP designed grant activities to build on activities from previous projects in the intervention area. • Economic incentives were aligned with environmental benefits. • Synergies were created between grant activities and other UP projects (for example, beneficiaries producing cookstoves could sell them through UP).	• Short grant timeline
Implementation process characteristics	• Strong buy-in from local leaders • Flexibility of the donor in approving new grant activities and capacity building • Flexibility of grantee to allow adjustments to implementation to meet donor, beneficiary, and local partner needs	• Delay in provision of REFLECT manuals • Inconsistent feedback from funder on implementation guidelines
Environmental factors and community characteristics	• Favorable exchange rates (that is, devaluation of the Malawian Kwacha) in the first year helped UP implement more activities	• Droughts in the first and second years • Fall armyworm infestation • Some beneficiaries expected immediate benefits (or "'handouts"), which led to initial resistance in implementation • No viable markets for agro-produce

1. Intervention design characteristics

UP designed the grant activities to build on activities from projects it had conducted in the intervention area before, and was able to leverage the grant to fill gaps identified through previous work. UP also piloted innovative technologies that it had observed to be successful in its other projects. For example, it promoted the production of cook stoves to help communities minimize the use of charcoal and generate income. **UP was also able to leverage synergies between this and its other projects**. For example, beneficiaries producing cookstoves under this grant could sell them through the UP Sustainable Energy Management Unit (SEMU) that was buying cookstoves for onward sale (and to generate carbon credits for community reinvestment).

The **interventions designed by UP also promoted environmental sustainability and alleviated poverty**, which incentivized beneficiaries and facilitated implementation success. Beneficiaries found that sustainable land management practices required less labor and expense and resulted in higher crop yields even as they minimized environmental damage.

The main barrier to successful implementation was the relatively short grant period. UP (like all MCA-Malawi grantees) had three years to implement the grant, and stakeholders and grant beneficiaries agreed that with more time, they could have reached more people and laid the groundwork for grant sustainability. In addition, one grant staff member said there was a five-month delay between the grant signing and the start of implementation, which gave UP even less time to implement the grant.

2. Implementation process characteristics

Buy-in from and collaboration with local government partners and local leaders were critical to successful implementation. These local partners mobilized community members for activities, provided trainings, and helped monitor the activities.

MCA-Malawi's flexibility in approving new grant activities and building capacity was also helpful during the implementation process. Capacity building included regular meetings with the grantee's finance personnel to help monitor the grant's burn rate and identify allowable and non-allowable costs under the contract.

A third facilitator of implementation success was **UP's flexibility in making program adjustments to meet donor, beneficiary, and local partner needs**. For example, the donor asked UP not to implement the planned sustainable charcoal production pilot, UP replaced that activity with a pilot of an inexpensive biogas digester system. UP also found that more beneficiaries than expected wanted to participate in REFLECT circles, and the grantee added more REFLECT circles than planned. In response to local government concerns, UP also made adjustments to its implementation design, using lead farmers instead of village extension multipliers to implement ENRM activities.

Barriers to a successful implementation included a delay in the provision of a standardized REFLECT manual by MCA-Malawi and inconsistent feedback from MCA-Malawi on implementation guidelines. Examples of this included inconsistent guidance on whether to provide seeds to beneficiaries or support them in using their own, and conflicting information on which indicators to collect data for.

3. Environmental factors and community characteristics

UP spent 106 percent of its grant budget in Malawian kwacha to implement activities because of **favorable exchange rates during the implementation period**. Because the budget was financed in dollars, when the kwacha fell in comparison to the dollar, UP received more kwacha than it had in its original budget, and could consequently implement more activities than originally planned, planting more trees, for example.

Barriers included droughts in the first and second years, which contributed to low survival rates for planted trees. In addition, the droughts and **an infestation of fall armyworms** depressed production, leading to small harvests and famine. These crises also discouraged some farmers from participating in grant activities. UP mitigated these issues by buying more tree seedlings, encouraging crop diversification and drought-tolerant crops, and working with the agricultural extension workers to produce information packs on fall armyworms.

Another barrier to participation was that most **people in the target villages were used to receiving payment or food for participating in trainings and activities** with government workers or organizations. Other organizations were also conducting similar activities (like tree-planting initiatives) in the area during the grant period, and were using a "food-for-work" approach. This led to some initial resistance from community members to UP-led activities

(referred to as the "handout' syndrome" in the area). UP was able to mitigate this by involving traditional leaders, and community members eventually understood the differences in the interventions and the benefits of the UP activities. One other barrier was the **lack of viable markets to sell agro-produce**.

C. Findings on ENRM activities

Research questions on the effects of ENRM activities

- To what extent did the intervention lead to adoption of conservation agriculture and land management practices by farmers and communities?
  - Which land management practices are more readily adopted by farmers and communities, and why? Are there differences in adoption between male and female farmers?
  - Is it possible to differentiate between effective training approaches and practices that farmers are predisposed to adopt? If yes, are certain training methods associated with greater farmer adoption? Are different training methods associated with better results for male and female farmers?
  - What was the relationship, if any, between ease of adoption, farmers' perceptions of effectiveness, and farmers' tendency to adopt different practices?

We now examine the outputs and nascent outcomes of UP's ENRM activities. We identified common and conflicting experiences and perspectives across grant activity participants, community leaders, government agents, and implementers to understand whether, how and why activities were adopted, including key factors driving outputs. We triangulated activity findings for consistency and discrepancies across multiple data sources, including grant reporting documents and interviews with different stakeholders.

Table IV.3 summarizes our key findings on the adoption of ENRM practices, organized by research topic. It is based on our analysis of stakeholder interviews, focus groups, and grant activity documentation. We go into more depth on the research questions after the table.

Table IV.3. Main themes on adoption of ENRM practices by research topic

Research topic	Main themes
Adoption of conservation agriculture and land management practices	• Most people who participated in activities adopted ENRM practices. The practices that were most widely adopted were related to conservation agriculture and preserving soil fertility. • Both men and women participated, but the majority of the participants and a higher percentage of the adopters were women.
Training methods	• Having local lead farmers who encouraged others to participate, demonstrated activities, and answered questions was instrumental in validating the activities' benefits and increasing their rates of adoption. • Effectiveness of the methods did not vary by gender.
Characteristics of practices that lead to adoption and non-adoption	• Adoption of a practice was driven by its visible benefits. • As people saw visible benefits, practices spread through communities, and initial resistance was overcome. • One of the most common reasons for not adopting the practices was lack of materials or lack of money to buy materials or hire labor to implement activities. • Another common reason was that some activities were seen as too labor-intensive.

1. Adoption of conservation agriculture and land management practices

Beneficiaries had mixed responses on the rates of adopting conservation agriculture and land management practices; however, they tended to agree that **the majority of people who participated in ENRM activity trainings adopted many of the practices. The practices that were most widely adopted were related to conservation agriculture and preserving soil fertility**, such as constructing and aligning ridges, making fertilizer out of manure, planting trees, pruning existing trees instead of cutting them, and mulching. Some beneficiaries and community leaders also thought that planting vetiver grass, and digging watersheds and swales were also commonly adopted. Several government officials and community leaders and one grant staff member mentioned that making contour bands and closing up gullies were commonly adopted practices; however, one of the government officials noted that those practices were viewed as labor-intensive, and therefore many beneficiaries did not adopt them.

When examining the differences in adoption by gender, both men and women participated in ENRM grant activities, but respondents agreed that **the majority of the participants were women**. Many beneficiaries and community leaders mentioned that women were more engaged in trainings and more eager to adopt the activities because they were affected more by lack of food and scarcity of natural resources. One male beneficiary explained,

> *Women are the ones who meet a lot of problems in the household; the scarcity of firewood in the household whenever the environment is being depleted, women are affected more. Also in terms of farming, if hunger strikes in the house, men can just walk and eat somewhere else, but a woman is the affected one with the children at*

> *home, so it happens that they know their problems, so they are always on the forefront in order to end their problems. (FG_M44)*[15]

One government official remarked that men were simply not interested in attending these trainings, viewing them as a "waste of time" or preferring to watch soccer instead, and thought they were mostly for women. Another government official noted that men were more enticed by immediate economic benefits, saying, "When men show up themselves to the meetings, it means they have heard that they will receive something, but when there is nothing, they don't come." (GOV3)

2. Training methods for ENRM practice adoption

Many beneficiaries and community leaders mentioned that having local lead farmers who encouraged others to participate, conducted demonstration activities, and were available to answer questions was instrumental in showing the activities' benefits to community members and getting them to adopt the activities. Two government officials agreed, and added that having demonstration plots in the community for others to see also helped showcase the practices and persuade farmers to adopt the activities. One government official described this process. "People in the past were not adopting the procedures clearly, but with the encouragement from the project and also showing the people the plots that are doing well, the people got persuaded, so it was like we attracted a lot of people" (GOV2). Government officials and one grant staff member who was interviewed thought that participatory training method, in which participants were empowered to lead the discussions and come up with solutions to their own problems, was effective because "farmers were understanding more than just listening" (GOV3). Lastly, the few respondents who shared their thoughts on gender and training methods reported they did not think there were different training methods that were more effective for women or for men.

3. Characteristics of practices that led to their adoption or non-adoption

There was a general consensus among interviewees that **the biggest reason for adopting ENRM practices was that beneficiaries understood the advantages** and how the practices were going to help transform their livelihoods. For example, one beneficiary explained the advantages of planting trees around their house to have enough firewood.

> *In the past […] it was difficult. Women were covering long distances to get firewood and could meet fierce people, but the coming of United Purpose guided us to get indigenous trees or buy and plant at home and get firewood within the house and use stoves that reduce the consumption of firewood. Now the same bunch of firewood is lasting her almost three weeks [whereas before it lasted two to three days], so […] if I compare at first and today, now the problems are lessened. (FG_M32)*

[15] The following codes are used to identify the type of respondent being quoted: GS = grant program staff; CL = community leader; FG = beneficiary in a focus group; GE = government employee; WH = female SGEF beneficiary or husband of a female SGEF beneficiary; F = female; M = male. Numbers differentiate each unique interviewee.

Another beneficiary commented on the benefits of trees for protection against the winds. "We were told to plant surrounding the home, it can help to prevent fierce winds. For that reason, people have three or four trees; if you move around the houses, you will see that people have planted trees so that they can be protected." (FG_M30) One community leader gave an example of the utility of the watersheds beneficial: "The benefit is that after we made the water sheds, when water comes, it wasn't running but it was accumulating. So the streams in our farms were reduced, water was just stopping and also there was moisture in the farms" (CL3).

One beneficiary commented on understanding and investing in the long-term benefits of these activities:

> *When you're doing something, you cannot see the benefit right away. You see the benefit maybe in two years' time or more. So when we were making these decisions, we knew that the benefit is there but we did not see it right away. We knew that we would find the benefit in the future. […] When we were doing these [activities], […] our vision was that what we are doing, in the future we will find benefit. Now we are able to see that the forests are protected, in the past, upon reaching this month June–July we would have already set it ablaze, but in these years, forest are staying, grass is staying without being set ablaze, showing that is the benefit we are seeing currently. (FG_X74)*

Despite ultimately adopting the activities and seeing their benefits, community members put up some resistance at first. Many respondents mentioned that some beneficiaries only adopted the activities after they saw their friends or neighbors benefiting. One community leader summarized it this way: "They did not accept it, they said that it is useless, but as useless as it may be, when they see their friends who adopted these practices, they begin to admire" (CL2).

Several respondents also mentioned other reasons for adopting activities. Some **activities were viewed as easy to implement** and didn't require a lot of training (for example, tree planting). Other beneficiaries mentioned that **receiving materials such as shovels, picks, watering canes, tubes, and the like helped with activities** such as aligning ridges and sowing trees. Finally, beneficiaries in three focus groups said they stopped cutting down trees because they were **afraid of getting arrested or receiving a fine as a result of the new bylaws**.

One of the most common reasons for non-adoption was the **lack of materials or lack of money to buy materials or hire labor needed to implement** some of the activities. For example, to make fertilizer from manure, beneficiaries needed to buy fertilizer and have livestock to produce the manure. One beneficiary explained,

> *When we talk about conservation farming, [you need] to have enough manure; you should have some fertilizer and add it together with the manure, so a person […] maybe does not have dung [or] money to buy fertilizer and mix with other things […], so it was hard that even if I […] reduce the ridge, there is nothing that will happen [so it is] better to just leave the ridge the same way. (FG_M45)*

One grant staff member added that this process was further challenged by water scarcity in areas that had few boreholes.

Another reason for non-adoption—cited by several beneficiaries, community leaders, and one government official—was that **certain activities were seen as too labor-intensive**. Some of these were, making contour bands and closing gullies, as noted, and building watersheds. However, several beneficiaries mentioned that making ridges seemed difficult at first but, after observing the benefits, they expanded the activity to larger areas of their farm.

A third reason not to adopt the practices (mentioned by a few beneficiaries) was that **some farmers were elderly** and could not come to the trainings, and some activities were too labor-intensive for them. However, one beneficiary mentioned that in her area, they helped the elderly; for example, by sending youth to help them and sharing manure distributed by the chief. One community leader and beneficiaries in two of the five focus groups said another reason for non-adoption was that **some beneficiaries felt discouraged after they were not selected for lead farmer training and did not receive an allowance**. Some of those did not choose to follow lead farmers at first, but after seeing how others benefited, they adopted the practices later.

4. Nascent outcomes related to UP's ENRM activities

Many beneficiaries reported seeing benefits as a result of adopting the ENRM activities and the emergence of outcomes suggested by the design logic of the grant activities. **The majority of beneficiaries and community leaders said there was less cutting of the trees and an increase in forest reserves** in the community and in people's homes. One community leader thought that tree planting had led to a reduction in soil erosion on his farm. One government official mentioned that making contour bands and closing gullies had led to a reduction in siltation in the local river.

The majority of the beneficiaries also commented on seeing higher crop yields as a result of practicing conservation agriculture activities, such as making ridges and applying fertilizer made from manure. One beneficiary noted, "I have a one-acre farm, on a very steep slope. At first I would harvest only four bags of maize, but after I followed these new ways of farming, last year I harvested 26 bags of maize" (FG_F71). These data were collected in areas that experienced the best-case scenario in intervention implementation. They were also collected at the end of the intervention period, when outcomes had not had time to fully emerge, but they do suggest the promise of these interventions.

D. Findings on SGEF activities

Research questions on the effects of SGEF activities

- To what extent did the intervention affect gender roles in households and communities?
  - To what extent did the intervention lead to greater joint household decision making regarding land and natural resource management and household finances?
  - To what extent did the intervention lead to changes in division of labor on the farm and at home?
  - To what extent did the intervention lead to leadership opportunities for women? To what extent did the intervention promote female-headed household involvement in community decision making?

In this section, we examine the outputs and outcomes of UP's SGEF activities beginning with the adoption rates of SGEF activities and outputs. Secondly, we use thematic framing and triangulation to discover whether the grant activities led to changes in household decision making processes, divisions of labor, and leadership opportunities for women.

UP realized broad success with its SGEF activities, particularly VSLs, and community members said it achieved key outputs. Table IV.4 summarizes our key findings on adoption of SGEF practices and changes in joint household decision making, division of labor, and women's leadership opportunities as a result of UP's SGEF activities. Findings are based on our analysis of stakeholder interviews, focus groups, and grant activity documentation. Following the summary table, we provide a deeper analysis of adopting SGEF practices and answer the relevant research questions.

Table IV.4. Main themes on adoption of SGEF practices by research topic

Research topic	Main themes
Joint household decision making	• There is now more joint decision making in households than there was before the grant activities, especially on finances, farm work, harvesting, and participation in community activities.
Division of labor on farms and at home	• There is now a more egalitarian division of labor in many families, with both men and women taking part in household activities and children being taught different norms.
Leadership opportunities for women	• There is more equal distribution of men and women in leadership positions.
The involvement of female household heads in community decision making	• Female-headed households are now more involved in community activities.

1. Adoption of SGEF practices

Most beneficiaries agreed that SGEF-informed **gender equality concepts and alternative forms of income generation were widely adopted by the participants. Village banks were the most commonly adopted activity**, with men, women, and even youth participating and using the rules that UP taught them for managing the banks. One female beneficiary noted, "You can't find a woman at home without belonging to a bank" (FG_F72). A community leader agreed, "VSL is Number 1, eh, VSL is Number 1, I don't know who is left, because men save, women save" (CL5). Along with their participation in the village banks, **many women became involved in income-generating activities**. Beneficiaries and community leaders mentioned that women were selling food at the market, learning how to make cookstoves for sale, and producing honey. One woman even bought a piece of land and opened a tuck shop. A few beneficiaries mentioned participation in the REFLECT circles and adult literacy schools.

Many beneficiaries and community leaders reported that **understanding the benefits these activities** could bring to their livelihoods, especially financial benefits from participating in the VSLs and engaging in business activities, was the biggest motivator in adopting these activities. Several respondents said there were some community members who adopted these activities (such as VSLs or working together with their spouse, for example) after seeing their friends enjoy the benefits. One government official added that many community members adopted VSLs because they quickly understood how VSLs work and saw the need for them in the community.

Several beneficiaries and community leaders shared their thoughts on why some community members chose not to adopt the activities or gender concepts: certain community members did not understand the benefits or the trainings, some were older and set in their ways—especially when it came to gender equality—some were used to handouts, and some lacked the resources to participate, such as the resources they needed to set up beekeeping. One beneficiary mentioned that a few community members who practiced Islam did not participate in VSLs because they considered any activity that charged interest a sin.

Respondents observed several **benefits as a result of adopting gender concepts and participating in alternative income-generating activities**. Many beneficiaries and community leaders commented on the **financial benefits of VSLs and businesses**, which helped them develop their homes and alleviate hunger. One male beneficiary gave an example of how the grant has benefited his family.

> *In the past we used to suffer very much, but with the arrival of this project my wife joined and […] began making the stoves. Now our home has sufficient needs because she can make up to K100,000 at once, and she brings to the money and we agree on what to do, say 'Let's go and buy livestock.' Now we have goats, ducks, and chickens at home from such skills. For that I appreciate very much because with my old age I didn't know where to depend on, so the stove skills help us in our home. (FG_M72)*

Both men and women commented on **changes in mindset due to the interventions, giving women more independence**. Many women reported a greater sense of freedom to engage in income-generating activities than they had before the grant. One female beneficiary gave an

example: "Now women are being independent and [are] able to join the groups that we are talking about, and maybe doing businesses, some are brewing beer, and being able to pay [for] children's school" (WH_F61). Men in three of the five focus groups said they encouraged their wives to participate in the VSLs and business, and this has lessened the burden on them to fend for the family alone. One male beneficiary commented on the importance of gender training in helping him have a better understanding of the household's financial self-interest and moving from a jealousy mindset to a partnership mindset:

> *In the past, there were opportunities here and there for village banking, but we didn't allow women [to] go and join the banks because we had a jealousy mindset. After being guided on gender that a woman should also be self-dependent and guided that if we allow a woman to take part in helping herself on other needs, we are going to be relieved of responsibilities because some small things a woman is able to do on her own. We were asked even for salt, but now she produces say K100 and you are helped and get relief. There are other things that a woman brings in the house and you bring, but because you do this while knowing, there is no suspicion. (FG_M30)*

Several beneficiaries and community leaders noted that they began to observe growing gender equality in the communities. A few men commented that after the trainings, they understood that women were also important, and that they should work together with women. A few men and women commented on observing a gradual change in gender roles: women are now doing jobs that were previously considered to be for men only, such as working as builders or digging up pit latrines. Fewer respondents reported seeing a reduction in domestic violence and disputes as a result of the trainings.

2. Joint household decision making on land and natural resource management and household finances

Most beneficiaries and community leaders reported that there is now **more joint decision making in households than there was before, especially on finances, farm work, harvesting, and participation in community activities**. Respondents reported that because of the activities, more people see women as capable of making good decisions for the family.

In the past, according to beneficiaries and community leaders, men were in charge of the finances and often didn't share all of the money with their wives, which led to domestic disputes in some families. One community leader gave an example: "In the past it was difficult. […] It was just about waiting for the husband. If he goes to his business, when coming from his business, the money was tightly controlled, taking most of it for himself and giving you a little" (CL2). Male and female beneficiaries alike commented on the trainings they received from UP, in which they were taught that they should discuss household decisions and make them together with their spouse. Many commented that during the training, participants learned that men and women are equal, and should work together for the benefit of their families. One grant staffer also mentioned that trainings focused on building the confidence of those who were marginalized before when it came to decision making. As a result, men now share money with their wives, include them in financial decision making, and even create budgets with their wives. Some also

mentioned that now that women make money themselves, they decide together with their husbands how to use the money.

In addition to making joint financial decisions, many beneficiaries reported more equal decision making on farmland; natural resources such as trees; livestock; and harvesting. One female beneficiary gave an example of the change in her family. "My husband and I sit down and discuss, we talk about how we are going to divide the land that year and which crops to grow, when the planting season begins, we already know how to go about our duties" (WH_F70).

3. Changes in division of labor on the farm and at home

Many beneficiaries and community leaders reported that there is **now a more egalitarian division of labor in many families, with both men and women taking part in household activities**, and children being taught new norms. One government official described that in the intervention area it has traditionally been rare for men to "work hard at the household" (GOV2). Beneficiaries and community leaders generally agreed, adding that certain activities at home were traditionally regarded as women's activities. However, those concepts were challenged after beneficiaries attended the UP trainings and learned that men and women should share responsibilities equally. For example, one beneficiary said:

> *Parents used to favor the male child, that he is the one more capable of doing things, and that the female child [is not] able to do certain things, that certain types of work are only for males and not females. But this project has […] helped parents realize that children can do the same type of work, the male child can clean the dishes, the female child can help in cutting down trees for building drying racks. (WH_M57)*

A few beneficiaries and community leaders also mentioned that **the division of work on the farm and taking care of livestock and natural resources (such as trees) is also more evenly distributed now.** The reports were mixed on how men and women divided the farm work before: some mentioned that men avoided the farm work and left it to women, and others said that farming was for men, and women were focused on household work. A few men said they used to work on the farm with their wives before and are still doing so, but now their wives are more involved in the decisions about which crops to plant and which harvest to sell.

There is a better division of labor because it appears that mindsets have shifted about who can do what, and what constitutes abuse. Burdening a woman with a lot of work is now seen as abuse. Several respondents brought up the same example: after a full day of work at the farm together, women were expected to carry back firewood, hoes, and children and then cook, clean, and take care of the children at home while men rested. However, after the trainings, community members could observe men carrying these items back from the farm, and men and women both reported that men help with cooking and cleaning at home. Several men in particular commented that they realized they didn't have to wait for their wives to cook, and they could do it and feed the children if their wives were not at home. One female beneficiary gave an example, "In the morning I went to my working place at [NAME]. When I returned, I went to draw water. When I returned, my husband told me to check in the pot, and I found cooked potatoes saved for me. I ate and rushed here. It means men are also taking part in gender issues" (FG_F27).

4. Changes in leadership opportunities for women, and female household heads' involvement in community decision making

Most beneficiaries and community leaders who were interviewed commented that they have observed a **more equal distribution of men and women in leadership positions** since the grant activities began. As one man put, "These days, when an organization comes [and asks to] choose a committee … when choosing the committee … if they are 10 [positions], that means 5 [are] men and 5 [are] women … That is being talked about regularly" (WH_M55). A few beneficiaries even noted that now there are more women leaders than men.

There are changes in leadership because both men and women have changed their mindsets. Most respondents shared their thoughts on this topic, saying that in the past, men held most of the leadership positions, and women were rarely elected. One male beneficiary explained that even women did not believe in themselves as leaders: "At first, even women used to look down on themselves. Even if they are elected within groups, they could refuse even though they had the capacity to lead the group, and men felt lowly to elect women" (FG_M72). Some women were reluctant to take leadership roles because they did not know how to read or write. Husbands also held their wives back. Some respondents gave examples of women who were elected to committees, but whose husbands did not allow them to attend. The result, as one community leader summarized, was that "in the past, men were the ones taking all the positions, and when elections came, people would only choose men with just two or three women. Now when there is an election meeting, you will find that women are chosen for top positions, and the majority of leaders are women" (CL5).

Beneficiaries described how during trainings, UP provided adult literacy classes, sensitized the participants on gender equality, encouraged women to get more involved in community activities, and provided guidance indicating that men and women should be elected to leadership positions in even numbers. Chiefs also continued to encourage their communities on these topics after the trainings. Men and women in two focus groups discussed how women leaders are doing a good job and sometimes are regarded as better leaders than men, because they are less prone to steal or take bribes, their work is more transparent and on time, and they stay in the area. Some women said they can now speak in public without being shy.

Examples of leadership positions that women now hold include chair of a village development committee; activity leader for various development organizations in the area (including UP); treasurer; and chair of local committees at the school, nursery, and the hospital. One beneficiary gave an example of how women can lead religious circles now. "Even in religious circles women were now taking part … now a woman can stand on the pulpit and preach, but in those days preaching was done by men only" (FG_F28). One community leader agreed, and also gave an example of how there are women chiefs now. "In our area, our chief is a woman, yet back then there wasn't something like that" (CL3). However, one government official mentioned that women still shy away from higher leadership positions and are resistant to speaking in front of men. Another government official thought that the grant should have stayed longer because men still want to hold the leadership positions and need more sensitization.

5. Changes for female household heads in community decision making

UP staff reported that the majority of the beneficiaries of grant activities were female-headed households. Several beneficiaries and community leaders shared their thoughts on how the grant changed the livelihoods of female household heads. They mentioned that these women were eager to adopt the activities after attending empowerment trainings, and were motivated by the benefits. Some were elected into leadership positions, like other women in the community. A few respondents commented that these women participate in VSLs and businesses now and are able to send their children to school and have more food in their households. One beneficiary remarked how he was surprised to see the development in one woman's household:

> *Where I went, I was fascinated the woman does not have a husband, but what she had in her house, I was fascinated. She is keeping chickens at her house, peas they just got from the farm. It caught my attention, and I said: 'Madam, do you know that you are wealthy? Do you feel it in yourself that you are wealthy?' And she said no, even at that point she was adding an additional kraal. Cutting wood by herself, as well as molding bricks, all by herself. (WH_M62)*

E. Sustainability of grant activities

Research questions addressed in this section

- What are stakeholders' perceptions of the sustainability of grant activities to improve sustainable land management and address social and gender barriers?
  - What factors were driving beneficiaries to continue to adopt sustainable land management (SLM) practices?

Because we conducted interviews near the end of the activity period, we can give an interim assessment on the prospects of the activities' sustainability from the perspective of stakeholders.

Respondents were asked to share their perspectives on how likely it was that the grant activities would be sustained. Their views were mixed. Most beneficiaries who shared their thoughts on sustainability were **optimistic that they would continue practicing most of the activities because they find them beneficial and they have impacted their lives positively**. Some respondents said even though they have yet to experience the benefits, they are optimistic about continuing. The government officials we interviewed, on the other hand, were worried about sustainability because the removal of support would affect the monitoring of activities.

Most beneficiaries reported that **they plan to continue with ENRM activities**, such as mulching, making manure fertilizer, planting trees, managing forests, and practicing irrigation farming and soil conservation (including realigning ridges, closing gullies, making water basins in fields, and digging swales). Government officials and grant staff also said they thought beneficiaries were likely to continue with the soil conservation and forest management activities.

An enthusiastic youth who participated in the Theatre for Development activity expressed the commitment people felt to the activities at the close of the grant. He reported that his group planned to continue sensitizing the communities on environmental issues until it reached everyone, saying, "We will continue to spread the word until everyone adopts the practices; the issue of zero tillage on the farm, manure, and how we can take care of the forest reserves, also the issue of farm animals, the group is there. We can't stop because the project has come to an end." (WH_M57)

Beneficiaries also said they **will continue practicing the gender lessons** they learned, such as working with their spouses in the household, using leadership skills, and, for women, making their voices heard. Beneficiaries also say they will continue with most of the SGEF activities, including VSLs; making cooking stoves; REFLECT circles, including adult literacy schools; and beekeeping and other income-generating activities.

We used a sustainability matrix to identify and examine four dimensions of sustainability and the factors that support or hinder them. We assessed stakeholder commitment to ENRM and SGEF practices, resource availability, and political support. Table IV.5 summarizes our interim findings on factors that may support or hinder the longer-term sustainability of grant activities.

Table IV.5. Facilitators and barriers to sustainability of UP grant activities

Dimensions	Facilitators	Barriers
Stakeholder commitment to ENRM practices	• Beneficiaries saw the benefits of ENRM practices. • People understood the importance of protecting the environment. • Community members hold each other accountable in adopting practices.	• There is a need for refresher trainings. • Inertia could make people revert back to old practices, and the forest might not be cared for. • Time frame for the grant was too short. • Certain community members were used to handouts
Stakeholder commitment to SGEF practices	• Broad-based acceptance of gender equality concepts • Observed benefits of adoption of SGEF practices • Gender ambassadors trained as part of the grant activities will continue overseeing the work. • Community members formed a committee through which they can address cases of gender-based violence	• Time frame for the grant was too short to adopt the activities new to the area. • Some community members may forget the gender concepts or backslide.
Resource availability	• Materials provided by UP will continue to support activities.	• Lack of materials may erode prospects of sustainability for some activities.
Political support	• Government support and awareness among community leaders.	• None identified

1. Stakeholder commitment to ENRM practices

Many beneficiaries noted that they learned the skills from UP and will continue with the activities **because they have already implemented them and seen the benefits**. Beneficiaries saw increased crop yields after applying ridging techniques, and less weeding after using mulching. One grant staff member noted that farmers are able to compare the quality of the soil they have now with what they had 5 to 10 years ago, and understand the importance of conservation agriculture in restoring soil fertility. Another community leader said, "The people of this area will continue to follow the activities, just as I have said, we saw the benefits and are seeing the benefits. For instance, we are able to control runoffs. So if we will continue to take care, water will never be scarce again, and if we will do ridge alignment, then we shall never lack food" (CL1). A beneficiary observed that everyone who adopted the activities still seems to be doing them, and he remains optimistic that continuing this work will help families reduce hunger and poverty.

Beneficiaries and stakeholders reported that **ownership of the activities was an important condition for the sustainability of the ENRM activities**. Many beneficiaries commented that they understood that not continuing with the activities will only hurt them and their communities, and that it is in their best interests to take ownership and continue with the activities. One female beneficiary reported, "Yes, we will continue because the training came into our community …. If we are reckless, we will not destroy [this] for the people who gave us the training, we will destroy it for ourselves. So with the benefits that we have seen, we will continue to do it. Even if they [UP staff] go, we are still the owners" (FG_X73). A community leader voiced a similar sentiment: "It's because the things are in our community, it's our own. We want to improve our lives" (CL3). A grant staff member highlighted that UP focused its ENRM activities on helping communities to help themselves, as opposed to giving handouts. Perhaps this message will have an impact on sustainability.

Several **beneficiaries mentioned that they encourage each other in the communities to adopt these practices** (for example, not cutting down the trees) during communal meetings and will continue to do so after the grant ends.

Several beneficiaries mentioned **risks to sustainability, including the need for refresher trainings and the waning motivation among community members**. One government official and a grant staff member both noted that **the time frame of the grant was not long enough to see the benefits** of maturing trees, which could put sustainability at risk. Respondents also said that **certain community members were used to handouts** and were not going to continue without any incentives.

2. Stakeholder commitment to SGEF practices

The possibility of sustainability SGEF practices is greater because **beneficiaries have experienced benefits, adopted activities, and understood and accepted the gender concepts that were shared**. Beneficiaries and stakeholders agreed that the monetary benefits from VSLs, stove-making, and other income-generating activities were a good motivator for beneficiaries to continue them. One female beneficiary reported, "As for me, they already asked if I will be able

to continue attending village banks without help. I said yes, because I also benefit from it. If I bank 10,000 for example, I get 20,000" (FG_F7). A male beneficiary commented on the benefits of his wife making stoves:

> *Now I am relieved and get some chance to relax while my wife works. Sometimes when I borrow, she assures me that she will settle my debts when she molds stoves. She makes more than 100,000 and pays debts easily. That makes me proud. The woman [his wife] also does some business and gets money to take care of the house, all because of this project. At first we were in trouble because girls were looking up to me for everything, but now things are good, the project has helped us a lot. (FG_M31)*

Several beneficiaries highlighted that for women in particular, the monetary gains help them become more independent, and they would want to continue that benefit.

Many **beneficiaries also understood the gender concepts and will continue practicing them because they can see the benefits**. A government official noted that women felt empowered and were able to stand up in front of the community and speak. Several female beneficiaries reported the benefits of working together with their husbands in the household, for example, with their husband helping to care for the children. One male beneficiary observed:

> *At first, people did not see it as important, but now they are able to see that a woman is just as important in a group. This will be maintained, because even the women themselves have realized that they should not despise themselves. They know that they can be able to do certain things. And now they have organized themselves and are in the forefront of anything that is going on. (WH_M57)*

Another female beneficiary agreed: "This change will continue, and us women we will not get weak, we won't allow the men to overlook us, because now everyone is open-minded, even the men now they know that a woman, you can't tell her what to do" (WH_F59).

There are measures in place that will support sustainability of these SGEF activities. A few beneficiaries and a government official pointed out that **there were gender ambassadors trained as part of the grant activities who will continue overseeing the work** and work with the chiefs to continue sensitizing communities on gender issues. In addition, a grant staff member also noted that the communities had taken measures to ensure that the gender concepts were being practiced, giving an example of **starting a committee in which community members can address cases of gender-based violence**.

Respondents also mentioned several risks to sustainability. One government official thought that the **full adoption of gender concepts will take more time because it is newer to the community** than ENRM activities, which were practiced in the area before the UP grant activities began. He also noted that **men will have incentives to backslide on gender commitments**, saying, "Men tend to want to have leading positions" (GOV2). Another countervailing force mentioned by one beneficiary is that men who have adopted more

egalitarian gender practices are looked down on by other men in the community, which might discourage them from continuing. A community leader noted that men are providing little support for the gender equality campaign. One beneficiary mentioned that some people have dropped out of REFLECT circles and VSLs already because they were not seeing benefits, and others could follow.

3. Resource availability

Several beneficiaries noted that the materials they received from UP, such as tubes, seeds, watering canes, wheelbarrows, and the like, will be particularly useful.

Risks to continuing the stove-making activity were shared by a beneficiary who noted it requires a lot of firewood, which is becoming scarce.

4. Political support

Beneficiaries and stakeholders underscored the importance of continued support from government officials and local leaders for sustainability. Several beneficiaries mentioned that they expected to receive continued support (including refresher trainings) from government officials, lead farmers, and chiefs. A few beneficiaries mentioned that chiefs will continue to play an important role in encouraging community members to attend relevant meetings and participate in the activities. A community leader confirmed:

> *As a chief, I call for meetings to encourage all people to start preparing their fields for the rainy season. The other thing is that we are encouraging the village committees to work hard in implementing ENRM and soil management practices. Just because United Purpose is leaving should not make us stop doing everything about this project. (CL4)*

Two government officials confirmed that coordination between them and community leaders and members will help with sustainability of the activities because people are encouraged when they see the government extension workers in their communities. A government official mentioned that lead farmers continue to organize activities and have been given bicycles to travel to villages. One grant staff member confirmed that during initial trainings with UP, government officials were quite involved and knew they had to take over grant activities after UP left.

Another form of political support is cooperation with government extension workers in the adult literacy schools. One government official mentioned that some REFLECT circle facilitators who worked during the UP grant activities and received a small reimbursement have been added to the government payroll and will receive a salary three times higher for continuing as facilitators and teaching in the adult literacy schools.

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V. FISD CASE STUDY FINDINGS

Summary of key findings

Implementation

- FISD implemented most of its ENRM and SGEF activities as planned. This included a solar-powered irrigation scheme, tree planting, soil conservation practices, village savings and loan (VSL) groups, and REFLECT circles. However, the implementation's effectiveness varied by area.
- The FISD grant implemented a unique activity centered on a 60-hectare solar-powered irrigation scheme. Even though FISD was experienced in establishing such schemes, it was unable at first struggled to set up the legal frameworks and institutional structures necessary for the activity's long-term success.
- In the past, FISD had paid farmers to complete ENRM tasks in one part of the intervention area, which limited those farmers' interest and motivation in the unpaid grant activities.
- Even though FISD had not conducted many SGEF activities before, it found those activities, particularly VSLs, to be popular with the community and complementary to its ENRM activities. Consequently, FISD scaled up its SGEF activities during the grant period.

Findings on ENRM activities

- Stakeholders reported generally widespread adoption of ENRM practices, particularly in the area connected to the irrigation scheme.
- Adoption did not seem to differ according to which practice was assessed, but was driven by the tangible environmental and economic benefits of the practices.

Findings on SGEF activities

- VSLs and REFLECT circles seemed to bring about positive changes for women, giving them a bigger role in household decision making and more community leadership opportunities.
- Changing perceptions about the genders was difficult given the short length of the activities. FISD's activities did not focus on changing the division of labor within a household.

Sustainability

- FISD's close collaboration with district government officials and its targeted trainings for community leaders on the SGEF and ENRM activities created a supportive environment for the ENRM and SGEF practices to continue after the grant activities end, but whether they actually will be sustained remains to be seen.
- Much of the land connected to the irrigation scheme remains idle and it is unclear if the necessary institutional structures are in place for farmers to embrace the scheme and cultivate the land longer term.

The Foundation for Irrigation and Sustainable Development (FISD) is a Malawian nongovernmental organization that received a grant of $718,201 from MCA-Malawi to improve land management in the Lunzu-Linjidzi catchment area in Blantyre district over three years, one of the hotspot catchment areas identified by MCA-Malawi. FISD estimates that its grant activities reached almost 6,900 households across 64 villages under 10 GVHs in the Lundu and

Chigaru Traditional Authorities (see Figure I.2 in Chapter I for a map of the villages where FISD activities were implemented).

The case study analysis is based on data from qualitative interviews, focus group discussions, and documents about the implementation of the grant activity. We begin by examining implementation and the logic model underpinning the intervention design. We then analyze outcomes for ENRM and SGEF activities before concluding with an assessment of sustainability.

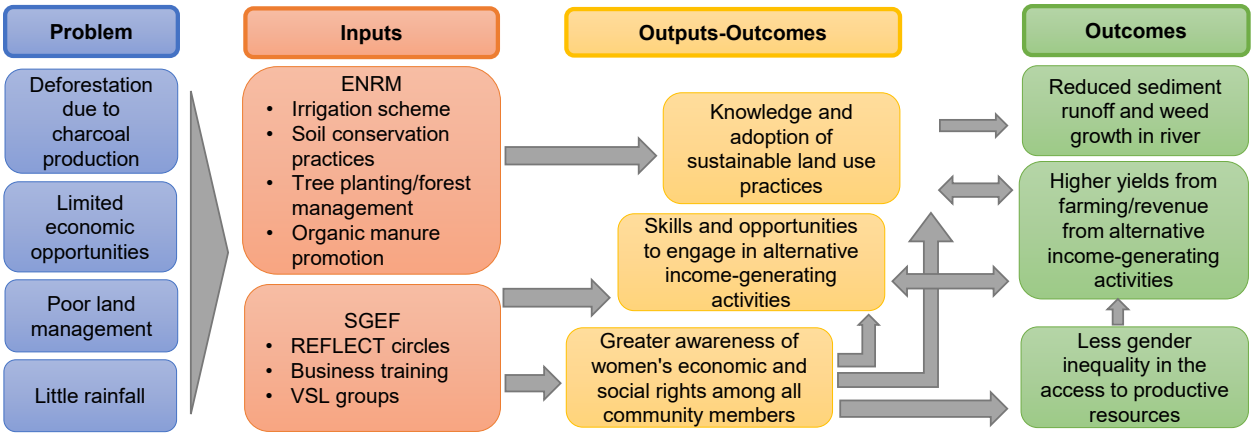
A. FISD interventions and program logic

Research question addressed in this section

- Which intervention was implemented, and what was the program logic underlying it?

Based on documentation of FISD grant activities and interviews with FISD staff, we developed a logic model to summarize FISD's program logic for all of its grant activities (Figure V.1).

Figure V.1. Program logic for FISD grant activities



The interventions FISD implemented addressed a number of challenges in the targeted areas. The challenges were related to limited rainfall and deforestation as households produce charcoal to sell in nearby Blantyre City. There are few profitable economic alternatives to charcoal production. In addition, subsistence farming, the main economic activity, continues to encroach on streams connected to the Shire River, with some households farming along the river's edge or even in the water. These land management practices produce significant sediment runoff, including fertilizer runoff, into the Shire River Basin. Table V.1 lists the ENRM and SGEF activities that FISD implemented to address these challenges and improve SLM.

Table V.1. Overview of FISD grant activities

Activity[a]	Number implemented (target), if known
ENRM activities	
Solar power irrigation scheme covering 60 hectares	60 hectares (60); 200 farmers (600)
Soil conservation practices: teaching and introducing practices to the community • Digging swales (shallow channels to manage water runoff) • Building check dams • Conducting marker ridge realignment	2 hectares; 1,270 participants
Forestry management: • Tree planting • Establishing woodlots • Strengthening village natural resource committees • Talks on forestry at primary schools	800,000 trees (1.4 million); 163 woodlots covering 185 hectares; 142 committee participants
Preparation and use of organic manure: farmer trainings	508 farmers trained (316 women and 189 men) and FISD established 18 demonstration plots.
SGEF activities	
REFLECT circles: identifying village priorities and implementing solutions	22 REFLECT circles with 478 participants (291 women and 187 men)
Business skills training	Implementation number unknown from FISD reports
VSL groups: training and establishing	59 groups (30); 1,647 participants

Source: FISD 2018 and FISD staff input from report review

[a] A description of each FISD grant activity is available in Appendix Table A.3.

FISD's objectives were to improve land management, both by changing farming practices and by providing alternative economic opportunities to farming, such as starting small businesses. Throughout, FISD was to give training and support, particularly to women in the community (**inputs**), who could then use their new skills and decision making power to change their land practices and engage in alternative income-generating opportunities (**outputs**). There were three complementary expected **outcomes** of FISD's activities: (1) on the environmental side, the changes in land practices would reduce sediment runoff and weed growth in the Shire River Basin; (2) on the household livelihoods side, changes in farming practices and economic activities would increase household income; and (3) on the social and gender side, greater awareness of women's economic and social rights would increase their access to productive resources and lessen gender inequality. More equal access to productive resources might also improve household incomes. Furthermore, we expect a feedback loop with these outcomes (denoted by the double-sided arrows in Figure VI.1), because higher yields from sustainable land management practices and success in alternative income-generating activities encourages more households to engage in those practices. In the long run, such interventions are intended to both improve the efficiency of hydropower generation and reduce poverty.

Although some activities were designated as part of ENRM or as part of SGEF in grant documents, in reality the activities were implemented synergistically and built on one another. FISD program staff describe the REFLECT circles as helping communities "[develop] work plans, identify the people's problems, and prioritize them and then implement the activities on the ground" (GS1).[16] Activities were not gender-exclusive: many men participated in REFLECT circles, VSL groups, and adult literacy classes.

Solar panels providing energy to the FISD irrigation scheme

The focal point of FISD's grant was the creation of a **60 hectare solar-powered irrigation scheme** that would serve households in two villages, with an estimated 200 farmers having the opportunity to work the land by the end of the intervention. FISD's for-profit construction company regularly constructs solar-powered irrigation schemes and, compared with the interventions of other grantees, it was an innovative approach to addressing poor land management and economic difficulties in the intervention area. The scheme was a central system that pumped water from the nearby river to irrigate adjacent fields. In addition to the irrigation scheme, FISD implemented a variety of soil conservation and forestry management activities to improve SLM.

Although MCA-Malawi encouraged all grantees to incorporate social and gender enhancement activities in their programming, this was an area that FISD had limited experience in. In its planning documents, FISD had only a cursory focus on SGEF-related activities, though it did ultimately implement such interventions as REFLECT circles and VSLs (Murray 2018).

[16] The following codes are used to identify the type of respondent being quoted: GS = grant program staff; CL = community leader; FG = beneficiary in a focus group; GE = government employee; WH = female SGEF beneficiary or husband of a female SGEF beneficiary; MCC=MCC staff member or consultant; MCA=MCA staff member; F = female; M = male. Numbers differentiate each unique interviewee.

B. FISD grant implementation

Research questions addressed in this section

- How was the program implemented?
  - How did implementation change from what was planned, and why?
  - Which implementation factors supported or hindered the completion of the intervention?

FISD's activity implementation was guided by three key principles:

1. **Community buy-in.** FISD connected with communities through relationships with local leaders and chiefs, and was familiar with the intervention area because it had conducted activities there before. FISD received support from village chiefs, traditional authority leaders, land owners, farmers, and the Blantyre district council before proceeding with developing the irrigation scheme.
2. **Partnership with government agencies.** On all its activities, FISD collaborated with the relevant government agencies to support the technical aspects of the intervention and promote the activity's sustainability. FISD worked with government departments in forestry, community development, and agriculture.
3. **Focus on demonstration plots.** FISD focused its training methods on using demonstration plots so all interested farmers could be trained at once and other community members could see the benefits of adopting SLM practices.

FISD was also able to reach, by its own count, 14,995 community members who participated in activities related to SLM as part of the intervention, with a focus on both male and female farmers. This exceeded FISD's target number of 13,000 community members. As part of these activities, farmers enacted anti-erosion measures, including building swales (shallow channels to manage water runoff), building check dams, and aligning marker ridges, on two hectares of farm land (FISD 2018; MCA-Malawi 2018). FISD had some challenges with tree planting due to the lack of rains. Although it intended to plant, conserve, and protect 1.4 million trees, FISD was only able to successfully plant around 800,000 (MCA-Malawi 2018). In total, though, FISD reported expanding the forestry area in the catchment by 185 hectares, or 57.8 percent. FISD also easily surpassed its target of establishing 30 VSLs. In response to high beneficiary demand and reprogramming of some grant activity funds, FISD was able to support the establishment of 59 VSLs that include about 1,647 members. FISD noted that the VSLs reported sharing in total 61,000,000 Malawian Kwacha (MWK), around US $83,000. One family, for example, that received a loan through a VSL started a fish business (FISD 2018).

FISD initially planned to build three irrigation schemes in three different villages, supporting 20 hectares each. However, only one of the planned locations had a sufficient water source for the scheme, and FISD ended up constructing one central irrigation scheme that covered 60 hectares.

FISD budgeted the equipment cost of the irrigation scheme to be around 41 million MWK, which was roughly US $86,000 in September 2015. FISD budgeted about 17 million MWK for labor associated with installing and operationalizing the scheme. FISD reported that other one- or two-pump irrigation schemes it previously built in Malawi cost between 24 and 30 million MWK (FISD 2015).

Factors that supported or hindered implementation. To assess how and why FISD achieved or did not achieve its intended targets and objectives, we employed an implementation effectiveness framework. We analyzed the case study data to classify implementation facilitators and barriers by characteristics of the intervention design, implementation process, and the community and environment. Implementation findings are summarized in Table V.2.

Table V.2. Facilitators and barriers to FISD grant implementation

Category	Facilitators	Barriers
Intervention design characteristics	• Activities were structured to provide both environmental and economic benefits	• Short activity timeline • Cost-reimbursement contract caused activity delays • Possible conflict of interest with FISD Limited Company
Implementation process characteristics	• Flexibility allowed the grant activities to adjust to meet beneficiary needs, including an increase in VSLs and business training	• A limited legal framework for the irrigation scheme, leading to land conflicts and a reduced irrigation area • Confusion with prior FISD intervention that involved payments to beneficiaries
Environmental factors and community characteristics	• Partnership with World Food Program in Blantyre District	• Heavy rains washed away tree seedlings along river bank • Armyworm infected maize crop

1. Intervention design characteristics

FISD designed an intervention whose incentives were well aligned with the dual-focused outcomes of environmental sustainability and poverty reduction. Beneficiaries had an economic incentive to engage in more SLM activities, including forestry management, soil conservation practices, and making and using organic manure. The latter two practices improved crop yields because there was nutrient-rich soil and an appropriate amount of water. SGEF activities, such as the VSLs, gave households alternatives to producing charcoal for income. The structure of the interventions generated important positive incentives for the success of the grant activities.

There were three barriers working against FISD as it sought to successfully implement the designed interventions, however. First, FISD, like all MCA-Malawi grantees, had limited time—only three years—to set up the grant activities, implement them, and achieve its objectives. This was a consistent challenge across grants: grant program staff, government officials, and beneficiaries all noted that they needed more time to ensure proper implementation and to lay the groundwork for sustaining activities. As one government official who collaborated with FISD put it: “To us, the project has had a very limited time … some of the activities have

been done hurriedly because FISD staff were looking at the time factor as to when the project is going to be phased out" (GE1).

Second, FISD, like all MCA-Malawi grantees, received no advance funding for grant activities after Year 1. Funding was based on reimbursement of actual costs, so that FISD had to pay expenses in Years 2 and 3 from other sources before getting reimbursed from MCA-Malawi after the activity was completed. This created some cash-flow issues and some delays in implementing activities as FISD waited for financial reimbursements from MCA-Malawi. Finally, although we do not have evidence that it negatively affected implementation, FISD's organizational set-up creates a possible conflict of interest. Although the implementing organization, FISD, is an NGO, it is connected to the larger FISD Limited Company that has four for-profit subsidiaries engaged in construction and farming activities (FISD Limited Company 2018). The nonprofit arm of FISD is basically contracting with its for-profit organization to construct the solar-powered irrigation scheme. This can create oversight issues if there are problems in construction and training quality, as noted by some activity stakeholders.

2. Implementation process characteristics

According to grant program staff, **FISD was able to make positive adjustments to its intervention activities** that were responsive to beneficiary, donor, and activity demands. For instance, FISD did not plan for the breadth and depth of the SGEF activities it ultimately implemented. Initially, FISD did not intend to support REFLECT circles, but after seeing the need in the community and with encouragement from MCA-Malawi, it adjusted its programming. In another change, it planned to provide goats to community members, but later canceled that activity because of the risk of the goats eating the leaves on the tree seedlings that were planted as part of the grant activities. According to grant staff members, some of the budget savings from this change were used to fund the REFLECT circles. Further, VSLs proved to be very popular and successful according to activity beneficiaries. According to the same grant staff members, FISD decided to help set-up a larger number of VSLs than what was initially planned. However, not all beneficiaries were clear on why FISD changed its mind on providing livestock, with several respondents upset that FISD promised one thing but did not deliver.

One key barrier to successful implementation was a limited legal framework for landowners affected by the irrigation scheme and water users of the irrigation scheme. The scheme was situated in one particular area to take advantage of a bountiful water source and expand upon an irrigation scheme that covered 10 hectares. Landowners provided a verbal commitment that farmers within the community could have access to 0.1 hectare plots for an appropriate lease fee along with membership in the water user association (WUA). FISD also arranged for a memorandum of understanding (MoU) between landowners and community members that described land access and the rights of landowners and users, according to MCC staff and consultants. FISD reported that it began the process to establish a WUA in 2015 at the beginning of its grant period. However, the land MoU did not include the duration of the land agreement and thus the scheme could lead to land conflicts and water disputes without a clear legal framework to resolve them. For instance, many farmers want access to the irrigated land, but landowners have an incentive to lease at high prices or to members outside the community.

The community also had to manage the new water source so that farmers received an equitable amount on their plots to cultivate crops. Further, there was no time frame discussed for how long the arrangement between landowners and water users would last (MCC4 and MCC5).

Because the irrigation scheme was the focal point of FISD's grant and an area where its organization was supposed have local expertise, the lack of planning for property rights was both a major barrier to successful implementation and a surprising omission. This issue threatened FISD's grant activities and its reputation in the community. MCC provided support in the final year of the grant to develop a license agreement for the landowners affected by the irrigation scheme and a constitution for a WUA in the community (MCC4). It is too early to tell if this support at the end of the grant period successfully defused the budding land conflicts. It is also unclear if the newly irrigated land will benefit farmers in the community or will be rented out to wealthier investors who live in nearby Blantyre. The latter would be a serious risk to the grant's objectives and long-term sustainability (MCC5). According to grant beneficiaries, the scheme is also yet to be operational on all 60 hectares as planned because it faces both construction issues and land disputes—another unexpected finding, given FISD's expertise in this area. The scheme has the potential to provide fertile irrigated land to 600 farmers, but at the end of the grant activities, FISD reported there were only about 200 farmers engaging in solar irrigation agriculture (FISD 2018).

Finally, **FISD ran into a significant complication based on its earlier work in one of the GVHs, where it paid community members to conduct SLM activities** such as digging swales and weeding around trees. As one beneficiary recounted, "So FISD is the only organization that came telling us to dig in return for payment" (FG1_M1). Because this grant intervention did not contain that kind of payment, many community members were not motivated to participate in it. Many other respondents did not realize that FISD was conducting additional activities under the MCA-Malawi-funded grant. These respondents focused their feedback on the previous activities, in which participants were paid. This lack of recognition in the community was a key barrier to achieving successful implementation, and something that FISD might have foreseen and tried to address ahead of time through community outreach. FISD seems to have focused its work most intensely on the irrigation scheme, even though that reached only a small portion of the intervention area targeted by the grant activities.

3. Environmental factors and community characteristics

FISD encountered **heavy rains and armyworms that worked against implementation**. During Year 1 of grant activities, heavy rains washed away tree seedlings planted near the river. This was mainly the result of poor catchment management upstream that was causing large debris to travel downstream to FISD's catchment area (Murray 2018). During Years 2 and 3 of grant activities, FISD partnered with the World Food Program in Blantyre District to try to address some of the rainy season water flow issues from catchment areas upstream of Lunzu-Linjidzi.

FISD also had to contend with armyworms that ate away at maize before it was ready to be harvested. As one beneficiary noted, "The only problem we had faced was the fall armyworms. Had it been there was no worm problem people could have harvested more, but worms were the

only hindrance. So the farmers have failed to harvest enough, but the initiative was good" (FG2_F1). Agricultural extension workers from the government often help farmers with pest control, and so do NGOs operating in communities. However, such an intervention was not part of FISD's activities. For households farming on land connected to the irrigation scheme, FISD successfully encouraged diversifying crop production away from maize (to rice in particular) to limit the negative economic effect of the armyworm. There did not appear to be any negative environmental effects related to the shift from maize to rice.

C. Findings on ENRM activities

We now turn to the outputs related to FISD's ENRM activities. We identified the common and conflicting experiences and perspectives of grant activity participants, community leaders, government agents, and implementers to understand whether, how, and why activities were adopted, including key factors driving outputs. We triangulate the findings to reveal consistency and discrepancies across multiple data sources, including grant reporting documents and interviews with different stakeholders.

Research questions on the effects of the ENRM activities

- To what extent did the intervention lead to adoption of conservation agriculture and land management practices by farmers and communities?
  - Which land management practices are more readily adopted by farmers and communities, and why? Are there differences in adoption between male and female farmers?
  - Is it possible to differentiate between effective training approaches and practices that farmers are predisposed to adopt? If yes, are certain training methods associated with greater farmer adoption? Are different training methods associated with better results for male and female farmers?
  - What was the relationship, if any, between ease of adoption, farmers' perceptions of effectiveness, and farmers' tendency to adopt different practices?

In general, we found that community members reported widespread adoption of ENRM activities. Although not all of them adopted the practices, the beneficiaries generally agreed that FISD engaged a large share of the community by using demonstrations and welcoming all who were interested, particularly in the villages around the irrigation scheme. Table V.3 summarizes our key findings on adopting ENRM practices, organized by research topic and based on our analysis of stakeholder interviews, focus groups, and grant activity documentation. After the table, we analyze the adoption of ENRM practices in more depth to answer the relevant research questions.

Table V.3. Main themes on adoption of ENRM practices by research topic

Research topic	Main themes
Adoption of SLM practices	• Generally widespread adoption reported, little differences between types of practice • Some evidence that women were more engaged in the SLM activities than men were, and adopted practices at higher rates, though both men and women participated in all activities • Big difference in SLM adoption between the GVH that received irrigation scheme and the one that did not • Rice cultivation in irrigation scheme a significant success
Training methods	• Focused on a hands-on approach with demonstrations • Did not always follow government agriculture policy of using the lead farmer model • Closely collaborated with government officials for trainings • Methods did not vary by gender, though for some trainings men and women were divided into same-gender groups
Characteristics of practices that lead to adoption	• Adoption driven by visible benefits of a practice—both environmental and economic • Visible benefits led to practices spreading through communities • All practices generally easy to adopt, though some required more manual labor

1. Adoption of SLM practices

In general, **adoption of SLM practices seems high among participants in FISD activities**. Farmers who were trained reported learning and adopting techniques such as mulching, making gullies, and digging swales for the main crops they were cultivating, particularly maize and rice. One beneficiary emphasized the importance of trainings and in-person participation for adopting SLM practices: "Maybe I can say, not going to the meetings or groups is what makes them not… adopt" (KII_M1). According to the grant staff and beneficiaries we interviewed, adoption rates seemed particularly high for tree planting, which was FISD's most widespread activity throughout the intervention area. It seemed to succeed because of FISD's focus on working with community leaders and chiefs to encourage their residents to plant and preserve trees. As one community member in the irrigation scheme area said, "We can see what a lot of people adopted here is the tree planting, because with trees I can say that the chiefs and people of this area are really taking part in restoring nature, with the intention of preventing drought in this area" (FG3_F1). However, there were also significant differences between different parts of the intervention area in the reported adoption of practices.

The irrigation scheme seems to have spurred adoption of SLM practices. Community members in the area encompassing the irrigation scheme, which was a focus of FISD's work and an economic boon to the villages involved, seemed more willing to participate and ultimately to adopt the new practices, such as swales, marker ridge alignment, and check dams. The irrigation scheme seems to have allowed WUA members who rented irrigated land to plant and harvest rice twice a year. Farmers seemed more engaged in FISD's activities because of the yield benefits from the irrigation scheme. In contrast, in an area outside of the scheme, many residents confused the current grant activities with others that FISD implemented recently and for which

FISD paid residents to adopt SLM practices. Several members of this community reported that residents were reluctant to participate and adopt the practices this time because they found out they were not being paid. This community also did not have access to an irrigation scheme, which might have motivated them to participate.

A **few respondents also reported that they adopted SLM practices because they learned how soil runoff and weed growth in the Shire River Basin is causing electricity blackouts.** Although most households in the villages lack electricity, villagers use electricity at the maize mill, and they have had the experience of going to the hospital and finding the hospital is without electricity. These farmers see the larger benefit to the community of changing their land management practices to guard against blackouts.

FISD's history of working in these communities helped encourage people to adopt SLM practices. Thanks to the length of FISD's prior activities, residents had time to see the economic benefits of the practices for early adopters. This has helped the adoption of SLM practices to spread through the community over time. One resident observed, "There were people who were not adopting, but because of the FISD organization, which has been operating here for three years, those people are now adopting what their friends are doing…" (FG3_M1). This was particularly true in the area with the irrigation scheme, where FISD had not paid participants in prior activities. A female farmer from that area emphasized the benefits of ridge alignment.

> *Yes, we noticed changes because at first we adopted a little when it just came. Then we adopted ridge alignment because when you do ridge alignment, you plant one seed per station, and the benefit with covering is that the weeds do not grow much and you just go for hand weeding.* (FG2_F2)

There is some evidence that women were more engaged and more interested in adopting these practices than men were. A few beneficiaries made this observation, saying women are more willing to try new things because of their past hardships. A male respondent said that men are busier than women and have less time to participate in FISD's activities and adopt the practices. However, there is no clear evidence of a difference between men and women in the rate of adopting SLM practices.

2. Training methods for SLM practices

FISD emphasized a hands-on approach to training. FISD focused on demonstrations—showing residents how to do a particular SLM practice—although trainings also included showing farmers booklets and writing notes on the blackboard. Although at times FISD used the lead farmer model advocated by the government—in which a few farmers are intensely trained, and then train other members of the community—at other times FISD supported trainings for a broader group of residents who wanted to participate. Farmers seemed to particularly appreciate the focus on demonstrations and including a larger group for the trainings. One remarked,

> *When it comes to writing and reading not everyone knows, but if you go for practical, doing something in public while everyone is watching, for that one who doesn't know*

> *how to read and write, his eyes are also watching and is learning, which is something he cannot forget.* (FGD3_M2)

FISD also chose to put demonstration plots in high visibility areas, such as along roads, so that many farmers would see the crop yield benefits of enacting a certain SLM practice. As one female farmer put it, "For those who did not attend the trainings, they had a chance to witness [the demonstration plots]. And when they saw that there will be a lot harvested, they thought that they should also emulate [those practices]" (FGD2_F3).

Furthermore, **for all trainings FISD collaborated closely with government officials**. District government experts in, for example, the departments of agriculture and forestry, would conduct parts of trainings organized by FISD. As one grant program staff member said, "The government is like the custodian of standards, so if we want to conduct training, the government would come in. So we would fuse their knowledge and ours, and things would work well on the ground" (GS1). Trainings were also a mechanism to diffuse knowledge to more people in the community. For example, FISD would work with government extension workers as they trained various land management committees. These committee members would in turn train the people in the villages. This practice was also brought up by a female focus group participant in the non-irrigation intervention area.

There do not appear to be any differences between men and women in adoption based on training methods. The same methods were generally used for both men and women, and beneficiaries and implementers reported that the methods were equally effective for both. FISD ensured that women were included in all trainings. To encourage full participation of women, for some trainings FISD would divide groups by gender to ensure women would present and help encourage them to speak up.

3. Characteristics of practices that lead to their adoption

Perceptions of a practice's effectiveness appear to be an important predictor of actual adoption. The benefits can be environmental, like reduced soil erosion, or revenue-generating, such as higher crop yields. Many residents focused on the crop yield benefits of a practice when describing their adoption of it. One female farmer reported on the benefits she saw from ridge alignment: "Where I did ridge realignment to adopt short spacing of ridges, I harvested a lot more compared to the normal or big ridges and with wide spacing" (FG2_F3).

Other farmers recount the environmental benefits to farming techniques that FISD taught them. One female farmer reported, "We block running water by putting in trees or making drains and contour bunds to stop water from destroying crops and soil erosion." (FG4_F1). Another farmer noted that for mulch farming,

> *[FISD] taught us that when we clear the land, the residues should be mulched, and afterwards we should open the mulch and then plant … and we should not plough, because if we plough and then the winds blow, the dust is carried, causing soil erosion because the soil has been loosened.* (FG2_F2).

Farmers did not specify any challenges with adopting SLM practices. Several farmers noted that the practices taught by FISD, such as mulching and producing organic manure, were relatively easy to adopt even if they required more hours of labor. FISD provided farming materials, such as hoes and *panga* knives, to facilitate these tasks. There were some complaints about the difficulty of implementing dry planting techniques for trees, which involves digging large pits for the tree seeds to capture water. The digging task can be strenuous, but villagers also saw that many more trees survived than in the past. Noting how proper forest management can lead to sustainably using trees for firewood and other purposes, one community member summarized: "On the issue of natural resources, we have done a lot in planting trees in places where there were no trees, and also managing re-generous trees in our mountains where we ourselves destroyed the trees" (CL1).

D. Findings on SGEF activities

Research questions on the effects of SGEF activities

- To what extent did the intervention affect gender roles in the household and communities?
  - To what extent did the intervention lead to greater joint household decision making regarding land and natural resource management and household finances?
  - To what extent did the intervention lead to changes in division of labor on the farm and at home?
  - To what extent did the intervention lead to leadership opportunities for women? To what extent did the intervention promote female-headed households' involvement in community decision making?

In this section, we examine the outputs related to FISD's SGEF activities. Here, too, we employ thematic framing and triangulation to analyze whether the grant activities led to changes in household decision making, division of labor, and leadership opportunities for women.

Although FISD initially had little experience in implementing SGEF activities and planned only a few of them, it later changed its implementation plan in response to community members' receptivity to and demand for the activities. FISD found broad-based success with its SGEF activities, particularly with VSLs, and community members reported that they achieved key outputs, at least in the short term. Table V.4 summarizes the main barriers and facilitators to improving joint household decision making, division of labor, and women's leadership opportunities as a result of FISD's SGEF activities. A deeper analysis of each SGEF research topic follows the table.

Table V.4. Main themes on adoption of SGEF practices by research topics

Research topic	Main themes
Joint household decision making	• VSLs supported joint household budgeting. • VSLs and REFLECT circles helped sensitize men to the value and importance of women's voices in decision making. • The effects of SGEF activities extended to women having a voice for SLM planning within the household and at the community level. • Pockets of resistance to change remain.
Division of labor	• There were some positive results from sensitizing men on this issue. • FISD implemented few activities designed to affect division of labor. • Improving division of labor requires longer-term, sustained interventions.
Leadership opportunities and community decision making	• There was a widespread increase in community leadership opportunities for women (including female household heads). • Men were accepting of larger leadership roles for women. • VSLs led to women having greater leadership opportunities within their households.

1. Joint household decision making

FISD's efforts to establish VSLs and train VSL agents on financial literacy seems to have had the most positive consequences of any SGEF activity. Both men and women reported that because of VSLs, couples now share more of the household decision making on finances. FISD ended up establishing more VSLs than it initially planned to because demand was so high. In some cases, couples were even part of the same VSL so they could learn budgeting tasks together. One male beneficiary reported:

> *We have benefitted in the sense that there is the sharing of ideas in families, and hugely we have benefited from the village savings and loan. For example, if I have K5000, my wife and I sit down to discuss our budgets and how we use the money… By doing this, we as families have shared ideas, while in the past as men, I would just make decisions on my own without hearing the views of my wife on how to budget the money. (FG5_M1)*

Other beneficiaries reported that this change in decision making has extended to household decisions on SLM. Part of this change could be because of the REFLECT circle activity, which was a venue to help encourage community discussion and debate and provide literacy trainings. One male respondent noted, "The coming of REFLECT circles has helped to conquer the shyness among men and women who are illiterate to undergo trainings together … We no longer look down on women but work together with them" (FG5_M2). Between the VSL and REFLECT circle trainings, beneficiaries reported that couples are able to work together to make farming decisions, such as how much money to borrow for seeds and other inputs, and participate together on village forestry management committees to protect those natural resources. Women (and men) were trained to develop their leadership skills and given opportunities to practice and demonstrate those new skills. Men in particular were sensitized to the value their partners bring to household decision making.

There were still pockets of reluctance to changing patterns in household decision making. Based on interviews with grant activity beneficiaries, cultural aversion appears partly responsible. As MCC and MCA-Malawi staff noted, it is difficult to change ingrained beliefs with only a short term grant activity. Community members also expressed some concerns about the quality of REFLECT circle trainers, particularly literacy teachers, and about the available resources, which could have limited the effects of these activities. One female beneficiary said, "Our teacher was busy; as a result we just gave up" (WH_W1). Others reported that men were not committing themselves to participating in the REFLECT circles because they are geared more towards women. Some men also said they did not want to be in the same literacy class as their wives. This lack of male commitment and openness to the SGEF activities could have limited how effectively the activity affected male behavior.

2. Division of labor by gender

We found mixed evidence of how FISD activities affected household division of labor by gender. Although FISD's SGEF activities supported positive if incremental changes in practicing joint household decision making, we have more mixed findings when examining how these activities changed the division of labor between men and women in households. Some respondents noted that the activities did help sensitize men on this issue and led to greater awareness and perhaps some families trying to ensure more equitable workloads between men and women. Respondents noted how some activities such as shopping, farming, and attending meetings are being divided more equitably. However, other respondents said bluntly that no change has taken place as a result of the grant activities. Cooking roles were still seen as women's work. Many respondents had little to say on this issue, which could suggest that there was not a strong connection between FISD's activities and a household's division of labor. Activities conducted by other grantees focused more closely on this outcome and could have had a larger effect, but FISD implemented few activities promoting this outcome.

3. Leadership opportunities and community decision making

Of the SGEF research topics we focused on, FISD appeared to have the largest effect on leadership opportunities for women. Both male and female beneficiaries consistently reported that more women had leadership opportunities as a result of the grant activities, including positions on key community committees. Part of this change is a result of FISD's specific activities. For instance, the successful VSLs allowed women to be trained as VSL group agents and serve in that leadership capacity. One female VSL agent reported that, "We learned how we can run a group, how we can handle it, how we can contribute, how we can write reports and other things. So after they taught us we came back and created groups" (CL2).

FISD also used other techniques to encourage leadership in women. One was to divide up groups by gender to ensure that women would attend and speak up during trainings. FISD also worked with community leaders and gained their buy-in. This resulted in new community laws requiring that committees contain an equal number of men and women and encouraging women to serve on executive committees.

Both men and women see the change these practices have had on community representation and voices. One male community member noted, "Women are taking leading positions like treasurer, secretary, and even chairlady depending on the village. So in all these, women are being encouraged, and they are becoming [more] fearless than before, when they used to have fear to be leading men" (FG1_M1). Men are seeing the benefits of this change as well, with one community member reflecting that "after going through the training, we see that women are also capable to take leading positions" (FG5_M2). Women still reported having some hesitancy to accept that they have the skills to participate on certain committees and lead groups. FISD's training helped alleviate these concerns, but there is still work to be done to get some female members of the community to believe they are qualified and accepted as leaders.

Leadership opportunities have extended to the household as well, with reports that women are now more involved in commercial and business activities. One male beneficiary remarked, "Before the coming of FISD, we could only leave women to do the kitchen work, but the introduction of gender has empowered women to participate in business where they travel to Mwanza and leave the husband with children" (FG5_M2). Overall, respondents reported that both married women and female household heads are benefiting, though it was noted that few adult women live alone. There is also some evidence that these leadership opportunities have translated into economic gains for some beneficiaries. One community leader sums it up succinctly: "The real change that has happened is mostly in VSLs, that's where we see that there is a huge change, and it shows that women are leading. Currently, women who never had any assets now have something because they adopted the VSLs" (CL1).

E. Sustainability of grant activities

Research questions addressed in this section

- What are stakeholders' perceptions of the sustainability of grant activities to improve sustainable land management and address social and gender barriers?
  - What factors were driving beneficiaries to continue to adopt sustainable land management (SLM) practices?

Because we conducted interviews near the end of the activity period, this is an interim assessment on the prospects of sustainability of grant activities from the perspectives of stakeholders.

We use a sustainability framework to examine four dimensions of sustainability and the barriers and facilitators that support or hinder advancement on those dimensions. Namely, we assess stakeholders' commitment to ENRM and SGEF practices, resource availability, and political support. Table V.5 summarizes the interim findings.

Table V.5. Facilitators and barriers to sustainability of FISD grant activities

Dimensions	Facilitators	Barriers
Stakeholder commitment to ENRM practices	• Close collaboration with agriculture and forestry departments and local leaders • Creation of village forestry committees • ENRM action plan • Tangible benefits from adopting ENRM practices	• Lack of formalized legal framework for irrigation scheme • Irrigation scheme only affecting a portion of the intervention area
Stakeholder commitment to SGEF practices	• Close collaboration with community development department • Training community members to lead activities • Tangible benefits from SGEF activities, particularly for women • Laws requiring female representation in leadership positions	• Difficult to affect behavioral change within short activity timeline
Resource availability	• Solvent VSLs • Creation of WUA to manage irrigation infrastructure and access • Functional REFLECT circles • Farmers trained on SLM practices	• No guaranteed follow-on funding
Political support	• Close collaboration with key political actors	• Attention easily diverted by competing projects/NGOs

1. Stakeholders' commitment to ENRM practices

The support and connections that FISD built with local stakeholders are likely to promote the sustainability of SLM practices. The local stakeholders FISD connected with are likely to remain involved with SLM practices even though FISD's grant activities ended. FISD collaborated closely with the agriculture and forestry department on all relevant activities in the intervention area, a point emphasized by FISD staff. And as one community leader said, "When FISD leaves, we should continue with the government advisers who are permanent in this community" (CL1). Although the structure of FISD's activities was generally aligned with government recommendations, it did focus more on agriculture demonstration plots for the whole community instead of targeting its training to a small group of lead farmers. It remains to be seen whether the government will revert to its prior approach in these communities by focusing on lead farmers and which training approach is more effective for sustaining and spreading adoption of SLM practices.

FISD, with the government's recommendation, also supported the existing committee structure for SLM. This included working with area development committees at the TA level, village development committees at the GVH level, and village natural resource management committees at the village level. By working with these committees, including helping them establish ENRM action plans, community members recognize that they will be able to continue the work that FISD has started. As one community member noted,

> *We have acquired the skills which will remain with us when the project phases out. We are not just saying this to excite you, you can conduct research and see the*

> *outcome. We now have village forests around, and bylaws which we follow to conserve the forest which will be passed on from generation to generation.* (FG5_M1)

Beyond the ENRM action plans, the tangible benefits of adopting ENRM practices, such as higher crop yields, should incentivize community members to continue adopting and spreading these practices.

At the same time, **the quality, location, and legal structure of the irrigation scheme remain the biggest question marks for the sustainability of that intervention.** MCC staff and consultants as well as community members expressed concerns about the upkeep of the irrigation scheme. Some stakeholders questioned whether the scheme was properly built with the pumping station close to the river and dug into the ground. Such a setup could make the pumping station prone to flooding. Community members have also found it difficult to repair the scheme when it breaks down. One said, "FISD wanted to increase the scheme by fixing the pipes, but it has not been done; if they had fixed it, it [would]… help us" (FG3_M3). The scheme has yet to be functional on all 60 hectares as planned. One farmer commented, "We have been requesting to fix gate valves and pipes, so that we can close the other part, so that the area where water is not reaching can reach, so that other farmers can go there. Right now we are crowded at one area and there are a lot of conflicts..." (FG3_M1).

Another problem with the scheme is the aforementioned lack of a legal framework to resolve property disputes and mediate water rights among the scheme's users. FISD has helped set up a nascent WUA, in which a membership fee provides access to irrigated land and supports a fund to pay for any required maintenance and repairs. But the scheme has already led to land conflicts, and it unclear who will ultimately get access to and reap the benefits of this newly irrigated land. One community member sums up the main issue bluntly, "People are fighting over the little piece of land where water reaches without difficulty. In the end, the little piece of land with easy access to water is shared by many people" (FG3_M2).

2. Stakeholders' commitment to SGEF practices

FISD also built connections with government and community stakeholders who are key to the continued progress on SGEF practices. FISD collaborated with key government stakeholders in the community development department when implementing SGEF activities. Further, FISD focused on training community members to lead activities so those activities could continue without FISD's direct support. Community members were trained to manage and run VSLs, facilitate REFLECT circles, and lead adult literacy groups. As FISD staff reported,

> *We made sure that when training at the village level, the community leaders and the village head should be there. When the people have written the constitution and endorsed it, the chief and the group village headman were also supposed to endorse. In such a way, people were able to understand each other on what they are doing.* (GS1)

Beneficiaries almost uniformly believed activities would continue without FISD because of the trainings that took place. Beneficiaries also noted the important changes taking place within the community as women are elevated to leadership positions. One community member responded to a query on activity sustainability by stating:

> *To my side, I am saying this all heartedly will continue, why is this so? Because as we put women in leadership positions, they will be as role models to young girls who desire to be leaders in the future. At first the women would resist taking leadership positions because of feeling inferior, they would opt to be the vice chairperson just to watch what men are doing, but now after working hand in hand with men, they are able to take the leading position of chairperson in committees. So I am very sure for years to come it will be as part of our culture for women to take the leading position. (FG5_M1)*

Women have had the experience of taking leadership roles through the grant activities, and men have witnessed how effective women can be as leaders. These tangible benefits could help sustain the grant activities. Further, the new community laws that require female representation on village committees could also help sustain the gains from the grant activities.

FISDs interventions were short in duration and limited in intensity in the area of social and gender attitude changes, so it is uncertain whether they will result in longer-term cultural change. The community is optimistic that the social and gender transformation that began during the grant activities with FISD will continue. But MCC staff members expressed reservations about long- term effects of the SGEF programming, acknowledging that it is difficult to effect behavioral change, particularly through short-term activities like FISD's. These reservations are backed up by research that emphasizes the long and complex pathways required to change social norms (Goldman and Little 2015). MCC staff noted that they saw the grant activities more as pilot opportunities for grants to integrate social and gender activities alongside more traditional SLM.

3. Resource availability

One main hindrance to sustainability is the lack of any guaranteed follow-on funding to support grant activities. The still-developing environmental trust was originally conceived as a vehicle to provide sustained funding for ENRM and SGEF activities, but because the trust is not yet operational, it is unclear whether that type of programming will be funded in this intervention area and when. Although FISD partnered with government agencies to help sustain grant activities, government officials also noted their own resource constraints, particularly when it comes to helping to develop and implement ENRM action plans.

FISD did, however, put certain structures in place so the community would, going forward, have its own resources to keep implementing activities. FISD did support the creation of a WUA for farmers to manage access to and maintenance of the irrigation scheme. Government officials noted that FISD's work on implementing forest management plans supports the community to manage that resource into the future. Through proper training, the VSLs can remain solvent and functional without external assistance. One VSL member commented, "The

good thing is that even if the facilitators would leave us today, the group will be able to calculate the money since we have been trained on how to run VSL because we now have the expertise to be able to run this whole thing on our own" (FG5_M3). The REFLECT circle structure, an initiative pushed for by MCA-Malawi, also embeds a sustainability mechanism for a community to manage its own resources. FISD program staff explained, "With REFLECT, the project will be sustainable because after phasing out, they will be able to identify their own problems, find solutions, and manage their own problems, so that means the ENRM activities will still be continuing once the project phases out" (GS2). Finally, the grant activities also trained farmers on ENRM practices. Those farmers can continue to be resources for the community as practices are adopted and spread.

4. Political support

FISD's historical presence in the targeted areas means there is political support for sustainability. FISD had been working in the intervention area for several years before the MCA-Malawi-funded grant activities began and knows the community well. Before beginning its work, FISD developed buy-in from community leaders and worked closely with them and local government officials during implementation. Those relationships provide additional political support for the community to continue to carry out activities going forward, including properly managing woodlots, holding the meetings for REFLECT circles, and sustaining the irrigation scheme. At the same time, many NGOs operate in the Shire River Basin, and a community's attention and plans can be easily diverted by new projects and partnerships. Economic incentives may also outweigh any community desire to maintain some activities. In that sense, there is still a strong risk to the sustainability of FISD's activities.

VI. CCJP CASE STUDY FINDINGS

Summary of key findings

Implementation (RQs 1 and 2)

- CCJP implemented most of its grant activities as planned. This included natural resource management training, tree planting, resource mapping, REFLECT circles, gender equality and women's empowerment training, household planning and budgeting training, VSL groups, business management and marketing training, and a livestock pass-on scheme.
- The largest changes in CCJP's planned grant activities involved adding ENRM activities, adjusting and planting more trees than it originally planned on, adding REFLECT circles to address community demand, and creating bylaws for the livestock pass-on activity.

Findings on ENRM activities (RQ 3)

- Both men and women participated in ENRM activities, but the majority of the participants were women.
- Most beneficiaries agreed that the majority of people who attended the trainings adopted ENRM activities.
- The biggest reason for adopting the ENRM activities was that participants understood their benefits and how the activities could help transform their livelihoods. Some beneficiaries adopted the activities once they saw the benefits for their friends or neighbors.
- One of the most common reasons not to adopt the activities was a lack of understanding how the activities could benefit participants. Another common reason was reported to be the participants' resistance to change.
- Demonstrations and hands-on training facilitated adoption.

Findings on SGEF activities (RQ 4 and 5)

- SGEF activities and gender concepts were widely adopted among participants. More women than men participated in these activities and most of those who participated adopted the activities and gender concepts.
- Many women participated in VSLs and became involved in various income-generating activities.
- The biggest motivator in adopting activities was participants' understanding the benefits these activities could bring for their livelihoods, especially the financial benefits from VSLs and business activities.
- There is now more joint decision making in households than before, especially on harvest, budgeting, and participation in community activities.
- There is now a more equitable division of labor in homes and on farms, but there are still men who refuse to take part in household tasks, viewing them as being for women only.
- More women are taking up leadership positions and participating in community activities than in the past.

Sustainability (RQ 6)

- Beneficiaries were optimistic that they would continue practicing most of the activities because of their benefits and the positive impact on their lives.

Catholic Commission for Justice and Peace (CCJP), a local organization established in Mangochi District, was one of the 11 local organizations selected by MCA-Malawi to receive grant funding and implement the Environmental and National Resource Management (ENRM) project in Malawi. CCJP received a total grant funding of $362,084 to implement the "Empowerment of Lingamasa Communities for Power Generation" project. The three-year grant started in August 2015 and ended in July 2018.

The goal of the CCJP grant was to reduce gender disparities and inequalities in land and natural resource management for communities along Lingamasa (upper Shire River). CCJP identified five focus areas that relate to this goal:

1. Increase sustainability of community resource management by men and women
2. Increase community innovations to improve equitable land management
3. Capacitate women in leadership skills
4. Empower women and men in economic activities
5. Improve adult functional literacy and numeracy

For this case study, we analyzed program documentation, reports, and primary data, including CCJP's grant completion report (submitted to MCA-Malawi in August 2018); a final review report produced by an independent consultant (submitted to MCA-Malawi in September 2018); and transcripts from five focus groups and 17 interviews conducted by Kadale Consultants, a local data collection firm, in partnership with Mathematica. The focus groups had an average of 10 grant participants each. The interviews were conducted with CCJP grant staff, local government officials, community leaders, and individual beneficiaries from June to August 2018.

A. CCJP interventions and program logic

Research question addressed in this section

- Which intervention was implemented, and what was the program logic underlying it?

Before beginning implementation of grant activities, CCJP met with the local offices of the district commissioner, the District Executive Committee, and traditional leaders to introduce the grant and get buy-in. CCJP also conducted a baseline survey to understand the socioeconomic, religious, and cultural background of community members; establish the criteria for selecting beneficiaries; and identify stakeholders. These processes identified the following challenges that guided the design and implementation of grant activities:

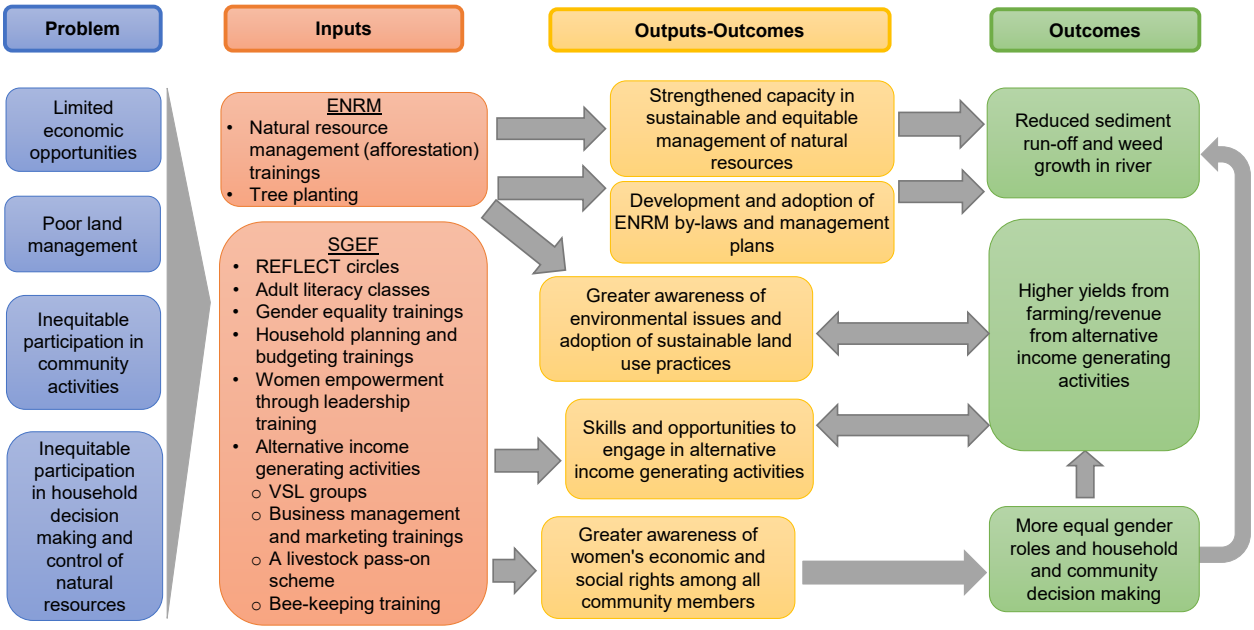
- **Limited economic opportunities**. CCJP learned that the intervention area had low literacy levels (particularly among women), and many community members resorted to charcoal production/selling due to poverty and lack of other options to earn money.

- **Poor land management practices**. CCJP also discovered that cutting down trees for charcoal production led to deforestation, disappearance of indigenous trees, land degradation, and silt running into the Lingamasa River.
- **Inequitable participation of women in community activities**. Results from the baseline survey showed that, historically, women were not participating in intervention activities conducted by organizations in the area. In addition, women did not hold many leadership positions and it was not common for women to speak in public due to cultural and religious beliefs.
- **Inequitable participation of women in household decision-making and control of natural resources**. CCJP also learned that although women were contributing to the economic growth of their families by working on farms and maintaining households, men had most of the decision-making power over how finances and other resources (including natural resources, such as farmland) should be allocated and used. This led to conflicts and gender-based violence within households.

To address these challenges, CCJP implemented both ENRM and SGEF activities, although the main focus was on SGEF activities. CCJP implemented the following SGEF activities: REFLECT circles, adult literacy classes, gender equality and women's empowerment through leadership trainings, household planning and budgeting training, village savings and loans (VSL) groups, business management and marketing training, a livestock pass-on scheme, and beekeeping training. In addition, CCJP implemented the following ENRM activities: natural resource management training, tree planting, and resource mapping.

Based on program documentation and staff interviews, we developed a logic model to summarize CCJP's program logic for all of its grant activities (see Figure VI.1). The SGEF and ENRM activities implemented under the grant (inputs) were aimed to provide greater awareness of women's rights and environmental issues and strengthen natural resource management capacity, which would lead to higher participation of women in community and natural resource management decision making as well as the adoption of natural resource management plans, sustainable land use practices, and less reliance on natural resources through engagement in alternative income generating activities (IGAs) (outputs). Even though CCJP initially focused on SGEF activities, it added a few ENRM activities during the implementation period in response to guidance from MCA-Malawi. Ultimately, the grant activities were expected to lead to two complimentary outcomes: on the environmental side, the changes in land practices were expected to reduce sediment runoff and weed growth in the river basin; on the household livelihoods side, changes in farming practices and economic activities were expected to increase household income. In the longer run, such interventions were intended to both improve the efficiency of hydropower generation and reduce poverty.

Figure VI.1. Program logic for CCJP grant activities



The grant targeted 2,500 households as direct beneficiaries and 15,000 households as indirect beneficiaries. CCJP implemented the grant in Mangochi District, within the 31 villages of Traditional Authority (TA) Chowe.

B. CCJP grant implementation

Research questions addressed in this section

- How was the program implemented?
  - How did implementation change from what was planned, and why?
  - Which implementation factors supported or hindered the completion of the intervention?

CCJP's activity implementation was mainly guided by three key principles:

1. Sensitization meetings with community members. CCJP began implementation by conducting sensitization meetings with community members in 31 villages to bring awareness to environmental degradation issues in the areas and describe upcoming grant activities. These meetings especially targeted community leaders (village heads, group village heads, TA, religious leaders, and other influential leaders), to sensitize them on gender and environmental issues in the area.
2. Trainings built around REFLECT circles, and on-the-ground learning. Implementation of CCJP grant activities involved several trainings. Most of the trainings followed the REFLECT circle approach and used facilitators selected from the target areas. Those who were trained in REFLECT circles were encouraged to spread the messages to other

community members. CCJP also conducted field trips to other villages to learn about the successes and challenges of natural regeneration and livestock pass-on programs conducted by other organizations.

3. Collaborations with local government officials. To conduct trainings, CCJP collaborated with various local government officials. Gender, VSL, REFLECT circles, and business and management trainings were conducted by the district department of community development; afforestation activities were conducted by the forestry department; and trainings for the livestock pass-on program were conducted by the agriculture department. The grant also received support from other local stakeholders such as area development committees (ADCs), village development committees (VDCs), and village heads. The government extension workers trained participants in classroom settings and conducted demonstration activities and practice exercises.

The package of interventions CCJP implemented and the scale of implementation are presented in Table VI.1. As part of the SGEF activities, CCJP established 11 REFLECT circles, trained 34 circle facilitators, and provided trainings to both women and men on gender equality, women's empowerment, and household planning and budgeting. Also under the grant, 154 community members graduated from adult literacy classes. In addition, the grant's SGEF activities supported alternative IGAs by establishing 46 VSLs, providing business and marketing training to 993 women, passing-on livestock to over 600 households, and supporting beekeeping through training and distribution of beehives. As part of the ENRM activities, CCJP provided natural resource management training to 310 community members, and trained 349 community members in village resource mapping. In addition, the grant planted over 92,000 fruit and indigenous trees, exceeding its target by more than 50 percent.

Table VI.1. Overview of CCJP grant activities

Activity[a]	Number implemented (target), if known
ENRM activities	
Natural resource management (afforestation) trainings	310 members (10 in each village) participated in the trainings.
Tree planting	A total of 92,667 fruit and indigenous trees were planted with a survival rate of 81 percent. (Initial target: 30,000 trees; revised target: 60,000 trees.)
Village resource mapping	349 community members were trained. (Target was 200 community members)
SGEF activities	
REFLECT circles	11 circles were established and 34 facilitators received training.
Adult literacy classes	154 community members (136 women and 18 men) successfully graduated from literacy classes.
Gender equality trainings	669 community members (406 women and 263 men) received training. Eight couples were chosen as gender champions. (Target was 600 influential leaders—300 men and 300 women)
Women empowerment through leadership training	CCJP trained 328 women in leadership skills and held sessions with 1,556 influential leaders (village heads, influential community leaders, religious leaders) to advocate for women to be included in leadership positions. (Target was 300 women and 600 influential community leaders)

Activity[a]	Number implemented (target), if known
Household planning and budgeting trainings	300 men and 300 women were trained. (Target was 300 men and 300 women)
Income-generating activities (IGAs)	
VSL groups	46 VSLs
Business management and marketing trainings	993 women were trained. (Target was 900 women)
Livestock pass-on scheme	606 households benefited
Beekeeping training	50 community members were trained; 11 bee clubs were formed; 100 beehives were provided. (In total there were 497 beehives that the forest clubs were managing by the end of the grant).

[a] A description of each CCJP grant activity is available in Appendix Table A.4.

CCJP made several major adjustments to its grant implementation plans.

- Initially, CCJP was planning to focus on SGEF activities exclusively. However, CCJP's performance review conducted by MCC and MCA-Malawi, revealed that CCJP needed to implement ENRM activities as well. CCJP noted, however, that it couldn't respond fully to this review: for example, it was asked to add conservation agriculture activities in the third year of the grant but did not have the money to do it.
- CCJP adjusted the targets of trees to be planted after MCA-Malawi published its monitoring and evaluation (M&E) report. Initially, CCJP had a goal of 30,000 trees to be planted (10,000 per year) but adjusted its target to 60,000 trees and ultimately planted 92,667.
- CCJP created bylaws for the livestock pass-on program after a learning visit to an area where the livestock pass-on program was successfully implemented by the Food and Agriculture Organization. The bylaws included strategies for program monitoring, setting criteria for selecting beneficiaries for livestock (for example, community members who were vulnerable), and asking beneficiaries to construct a raised kraal before receiving livestock.
- A delay in the provision of REFLECT manuals from MCA-Malawi resulted in a delayed rollout of REFLECT circles, which were therefore only implemented in the second year.
- Due to community demand, CCJP established two additional REFLECT circles and trained seven additional facilitators.

These changes notwithstanding, CCJP was able to implement most of the planned activities under the grant. As the numbers in Table VI.1 suggest, for many of the trainings related to SGEF and ENRM activities, CCJP exceeded the target number of women and men who were supposed to be trained. The discussion below presents our assessment of how and why CCJP achieved or did not achieve its intended targets and objectives by reflecting on the factors that facilitated or hindered CCJP's implementation of grant activities.

To identify the factors that supported and hindered implementation of the grant activities, we analyzed the case study data using an implementation effectiveness framework. With this framework, we grouped implementation facilitators and barriers into three categories: intervention design characteristics, implementation process characteristics, and environmental

factors and community characteristics. Table VI.2 summarizes our findings from this analysis, which are described in detail below.

Table VI.2. Facilitators and barriers to CCJP grant implementation

Category	Facilitators	Barriers
Intervention design characteristics	• Incentives aligned between environmental and economic benefits • Buy-in from local authorities and leaders	• Short grant implementation timeline • Lack of coordination between CCJP and other NGOs resulted in duplication of efforts • Cost-reimbursement grant contract caused activity delays
Implementation process characteristics	• Flexibility of the program to allow adjustments to meet donor needs • Providing resources to community members can enhanced participation • Good collaboration with government stakeholders • Frequent supervision visits by the donor	• Late provision of REFLECT manuals to groups delayed their operations • Legal challenges and conflicting rules between local government departments on planting along the river banks • Low participation of men in program activities that did not involve immediate economic benefits (for example, adult literacy schools, REFLECT circles, etc.)
Environmental factors and community characteristics	• Favorable exchange rates (that is, devaluation of the Malawian Kwacha) in the first year helped CCJP implement more activities	• Some livestock got sick and died shortly after being distributed • Drought in the first year affected the survival of tree seedlings • Floods in years one and two washed away some tree seedlings along the river banks • The intervention (catchment) area had difficult terrain to navigate, especially during the rainy season • Some beneficiaries expected immediate benefits (for example, meal allowances) • Religious resistance to certain grant activities such as VSLs

1. Intervention design characteristics

The interventions designed by CCJP provided both environmental and economic incentives that facilitated implementation. For example, beneficiaries found that engaging in sustainable land management (SLM) activities (such as burying maize sticks) was beneficial to them because it required less labor and fewer expenses and resulted in higher crop yields.

CCJP noted that **getting buy-in from local authorities and leaders also supported implementation.** Collaborating with local government officials was particularly important for CCJP given that its main area of expertise was the gender-related activities. It relied on local government officials to provide trainings for ENRM activities (for example, the forestry department provided trainings on afforestation).

A barrier to successful implementation was the relatively short duration of the grant implementation. CCJP (like all MCA-Malawi grantees) had three years to implement the program. Stakeholders and grant beneficiaries agreed that a longer implementation period would

have made it possible to reach out to more people and do more groundwork to make its activities sustainable.

Another barrier to implementation was that **other organizations conducted similar activities in the area, which resulted in more burden on participants** who were taken away from their household responsibilities to participate in various project activities. CCJP suggested in its final report that better coordination between CCJP and NGOs working in the same intervention area would also prevent duplication of efforts.

Lastly, CCJP received advance funding for grant activities in the first year, but **during the second and third years of the grant, MCA-Malawi switched to an invoicing system where all funding was based on reimbursement of actual costs**. This created a challenge for CCJP and caused implementation delays, as it had to pay for activities upfront and ask for reimbursement later. This affected CCJP's timeline and caused a two-month delay in implementation. In addition, when CCJP submitted requests for reimbursement, there was a reported delay in response from MCA-Malawi, which delayed implementation even longer and added to the burden on staff and implementers. For example, CCJP noted that staff and local community leaders implementing the grant activities had to work on weekends to make up for lost time during the delays.

2. Implementation process characteristics

One of the most important facilitators of grant activity implementation was CCJP's responsiveness to donor and beneficiary needs and its flexibility during implementation. Through its responsiveness to MCC and MCA-Malawi, CCJP added ENRM activities to the grant during the second year of implementation, and increased the targets for the number of trees to be planted. It also increased the number of REFLECT circles in response to community demand, and showed flexibility in creating bylaws for the livestock pass-on program.

In its final report, CCJP also noted other facilitators of the implementation process: **distribution of materials** (such as watering cans, gumboots, livestock, tree seedlings, and bicycles), which motivated community members to participate in activities; **good collaboration with the government stakeholders;** and **frequent supervision visits by MCA-Malawi,** which helped identify and correct issues sooner rather than later.

There were **a number of process-related barriers to implementation**. First, a delay in the provision of REFLECT manuals resulted in a delayed rollout of REFLECT circles. Second, there were legal challenges in interpreting conflicting administrative rules between the agriculture department (which promoted engaging in vegetable plantation along river banks) and the forest department (which recommended against it). To address this challenge, CCJP involved local leaders in discussions with government stakeholders. Finally, there was low participation of men in program activities that did not involve immediate economic benefits, such as adult literacy schools and REFLECT circles.

3. Environmental factors and community characteristics

The final category of factors that supported and hindered implementation of the grant activities includes environmental factors and community characteristics. An exogenous facilitator of this type was that **CCJP received payment from MCA-Malawi in Kwacha, and during the first year of implementation a favorable exchange rate provided them with more Kwacha than expected.** This allowed CCJP to implement more activities than planned (for example, procuring and planting more trees than initially planned). This also helped CCJP add ENRM activities that were not initially planned for in the second year.

Barriers to implementation included **livestock that died shortly after they were distributed by CCJP.** For example, one community leader remarked that most chickens died. **Drought also affected the intervention area** in the first year, and that affected the survival of planted tree seedlings. One grant staff noted, however, that in some communities the forest committees took initiatives to water the planted seedlings to ensure their survival. To motivate the forest committees, CCJP procured materials such as watering cans, slashes, rakes, and gumboots. **Floods also affected the area in the first two years and washed away some planted seedlings along the riverbanks.**

Mountains that can make navigation difficult and that drain into the Shire River.

CCJP also noted that **the area's mountainous terrain made it difficult for them to navigate the area, especially during the rainy season,** when it was impossible to reach some areas. This resulted in delays in implementation in those areas. To mitigate this, MCA-Malawi gave CCJP a vehicle, but only after two years of implementation. One grant staff noted that the provision of resources to CCJP (including the car) by MCA-Malawi contributed to successful implementation of grant activities.

As reported by CCJP and government stakeholders, another barrier to successful implementation was the **low participation of men in activities that did not have direct financial payments**, such as adult literacy classes, REFLECT circles, and VSLs. Men seemed to be more willing to engage in activities that involved a more immediate benefit (for example, beekeeping and the livestock pass-on program). **Some men also expected meal allowances during trainings** and left after they realized there were no resources being distributed. However, CCJP grant staff noted that it still encouraged men to participate in all activities.

A final barrier noted was that CCJP faced **religious resistance in the implementation of certain activities.** For example, it learned that the concept of the VSL (where interest is charged to borrow funds) was initially interpreted as being against Islamic religious beliefs in some communities. Also, according to CCJP, cultural aspects and religious beliefs prevented more

men from participating in the intervention activities led by female facilitators and activity leaders (for example, REFLECT circles facilitated by women). CCJP tried to mitigate this by involving religious leaders in programming and asking them to encourage their communities to participate.

C. Findings on SGEF activities

Research questions on the effects of SGEF activities

- To what extent did the intervention affect gender roles in households and communities?
  - To what extent did the intervention lead to greater joint household decision making on land and natural resource management and household finances?
  - To what extent did the intervention lead to changes in division of labor on the farm and at home?
  - To what extent did the intervention lead to leadership opportunities for women? To what extent did the intervention promote female-headed household involvement in community decision making?

We now discuss our examination of outputs and outcomes related to CCJP's SGEF activities. We identified common and conflicting experiences and perspectives across activity participants, community leaders, government agents, and implementers to understand whether, how, and why activities were adopted and outputs were achieved. We also employed thematic framing and triangulation to identify whether the activities led to changes in gender roles in households and communities, specifically in household decision making, the division of labor, leadership opportunities for women, and the involvement of female household heads in community decision making.

Overall, the adoption of SGEF practices by grant participants in the CCJP grant activity area was notable. Not all community members adopted SGEF practices, but beneficiaries interviewed spoke about the changes in attitudes about gender roles, gender equality concepts being more accepted, and more joint decision making in households. Beneficiaries also noted the adoption of alternative IGAs that were supported by the grant. In Table VI.3, we present our key findings on SGEF practice adoption in the CCJP grant area by research topic.

Table VI.3. Main themes on adoption of SGEF practices by research topic

Research topic	Main themes
Joint household decision making	• There is now more joint decision making in households than prior to grant activities, especially regarding farm work, harvesting, budgeting, and participation in community activities. • Budgeting was an activity adopted by many respondents, and many mentioned that learning about budgeting during the trainings helped increase communication between men and women.
Division of labor on farms and at home	• There are some reported changes toward a more egalitarian division of labor on farms and less so within households, with some men helping women with chores that are traditionally done by women alone.
Leadership opportunities	• There has been an increase in women in leadership positions throughout the intervention communities.
The involvement of female household heads in community decision making	• Female-headed households are now more involved in community activities.

1. Adoption of SGEF practices

Most respondents agreed that **gender equality concepts and alternative income generation supported by the SGEF activities were widely adopted by participants**. Male and female beneficiaries alike mentioned that they learned during CCJP trainings that men and women are equal and should work equally, and several referred to this as a "50/50 campaign". **The biggest reason for adoption of gender equality concepts and alternative IGAs was that beneficiaries saw the benefits for their families and their livelihoods.** A grant staff member observed that men's attitudes changed when they learned that women could also contribute to the socioeconomic benefit of families, which would benefit men as well. Many male beneficiaries reported this benefit of the SGEF activities and how it motivated their overall change in attitudes. Some men also reported that they realized they had been oppressing women in the past. One community leader described what community members had learned:

> *According to the trainings from CCJP, everyone is human regardless of sex, and anyone can do anything as a person. They encouraged us to work with any person regardless of race or sex so that everybody can benefit (CL59).*[17]

The change in attitudes toward gender roles reportedly took place in the realms of education, work, and social interactions. The same male community leader noted an increase in the number of girls being sent to school than before, as families would previously prioritize boys' education. He explained: "The thinking here was that if one [child] is to go to school, it is a male child, while a girl child was not sent to school. With the coming of this project, the number of girls going to school is greater than before, maybe that is the other part that has

[17] The following codes are used to identify the type of respondent being quoted: GS = grant program staff; CL = community leader; FG = beneficiary in a focus group; GE = government employee; WH = female SGEF beneficiary or husband of a female SGEF beneficiary; F = female; M = male. Numbers differentiate each unique interviewee.

changed" (CL59). A male beneficiary gave an example of change regarding work. He explained that in the past one wouldn't see women doing certain jobs, but now women are driving ambulances and other work vehicles and molding bricks—things that used to be done only by men. A female beneficiary added that women are now able to talk to men in public, for example, during tree planting demonstration activities. She noted that before women couldn't even greet a man on the street for fear of her husband's reaction at home. A government official concurred: "The cultural beliefs of this area are against free mixing between people of the opposite sex, so that is the challenge we are facing" (GE53).

Two key factors seem to explain the changes in attitudes toward gender roles: CCJP's gender equality training and attendance of trainings by women and men together. Several beneficiaries noted that having gender equality trainings was important and allowed women to participate in other grant activities. Several respondents commented that men were initially resistant to these trainings, fearing that if women leave the house and become economically empowered, they will become rude and cheat. Women traditionally need permission to leave the house and attend trainings by organizations similar to CCJP. However, after CCJP trainings, beneficiaries reported that leaving home became easier as men were sensitized by CCJP and became more accepting of women's broader roles in the community, and women were able to attend trainings and have more freedom. This allowed women to participate in adult literacy classes, beekeeping clubs, VSLs, and engage in various businesses. One male beneficiary noted that it was particularly useful that women and men attended these trainings together and learned as a family; this made it easier to understand and practice the concepts. Several respondents observed that increased communication between husbands and wives also led to a reduction in household conflicts and violence. For example, lacking communication, women reportedly could have conflicts with their husbands when their husbands spent all their money without regard to household needs. One grant staff member reported that in addition to trainings, CCJP also assisted beneficiaries with conflict resolution by connecting them with community leaders identified to help in these situations.

Participation in alternative IGAs such as VSLs, the livestock pass-on program, and beekeeping has also helped women become more self-reliant. Many beneficiaries noted that with the grant activities, women began to earn their own incomes. Several men commented that they saw benefits for the whole family when their wives began earning income. One beneficiary gave an example of how women whose husbands migrated for work to South Africa are now better able to sustain themselves and their children while living alone. Women are able to participate in businesses, borrow money from VSLs, and sell livestock they received from CCJP. Another beneficiary noted, however, that the VSL funding was not sufficient, and could not identify businesses they could start with such small amounts of cash.

2. Joint household decision making regarding land and natural resource management and household finances

Respondents generally reported that there is now more joint decision making in households than before the grant activities began, mainly regarding farm work, harvesting, budgeting, and participation in community activities. Women are now seen as capable of making good

decisions in their families and in their communities. One female beneficiary described how she and her husband make decisions together now. She explained:

> *I say, my husband, what are we to do with this money we have earned? Will some of it be used at the farm? Or some of it at the garden? Or some be used for soap? So, the man would bring out the money he has earned, and we allocate it accordingly, for instance, saying, this money will be used for soap and household needs, this will be used for such a thing. (WH_F54)*

Budgeting was an activity adopted by many respondents, and many mentioned that learning about budgeting during the trainings helped increase communication between men and women at home. Many reported these budgeting trainings also helped men and women to adopt gender practices by encouraging them to work and manage resources together. Several beneficiaries brought up examples where in the past women were not consulted when men decided how to spend money, and men would spend the household money without leaving much for their families (one man admitted he would spend the money and let his children go hungry). However, after the trainings, both men and women learned that setting up a budget and discussing it together was beneficial for the whole family. One female beneficiary explained:

> *In that way that we are able to help each other… while in the past we could not do that because elders used to say that the head of the household is the man. We never knew that the household is for the two people, and now we know that it's for both because we are in the new era, not in the past. (FG_F66)*

Overall, many respondents agreed that household decision making improved as a result of the budget trainings. However, not all women reported making financial decisions together with their husbands; several women noted that they are more independent now, and they don't need to ask their husbands for money. Instead, they use the money they earn from VSLs or other business activities to take care of their children, households, and farms.

3. Changes in division of labor on the farm and at home

All respondents acknowledged that CCJP spread a lot of messages about equal division of labor, and demonstrated it through inviting couples for trainings on gender. The trainings emphasized the importance of working together and that both men and women should share ideas and participate in activities equally. These messages resonated with both men and women who participated in the trainings. Men also reported appreciating the economic benefits of working together with women (for example, with men contributing more time to the household chores, women had more free time to engage in business and earn income). After the trainings, most respondents commented on **the observable change in the division of labor on the farms between men and women.** For example, several beneficiaries and community leaders observed men in their communities carrying tools from the farms. This is in contrast with the past when women were forced to do all the housework and subsistence farming work alone, which resulted in low socioeconomic productivity for women. One male beneficiary provided a description of the change (echoed by other respondents):

> *Long ago, when going back home, the woman would be the one to carry the hoes and the firewood back home. But these days' things are changing, we—the men—are picking the hoes, and the woman picking the firewood. On the way we may switch, and men carry the firewood as well. (WH_M57)*

Respondents also noted that **the division of labor at home was more equal now**. A number of beneficiaries commented that they noticed a change, and several male beneficiaries gave examples of how they help out with chores at home, such as cooking and fetching water. However, one community leader thought that even though there has been some change, it is not happening in all households. Some people in the community still consider some tasks to be only for women. For example, some men still refuse to participate in cooking and to join a VSL for fear of being laughed at in the community. The leader summarized:

> *That change is very minimal; there are a few men who help [women] in household chores …. They say 'I can't cook while you are around, or while the kids are around. As for the cooking, it is you who will do the cooking.' As for washing, it is a few who help their wives. As far as household chores are concerned, the change is minimal. (CL64)*

4. Changes in leadership opportunities for women

Most respondents commented on seeing an increase in women in leadership positions throughout their communities. The views were mixed on how the situation compared to what it was in the past. Many respondents said that women were unable to attain positions like chairperson or treasurer in the past. Some differed, saying women in the past could attain such positions but they were limited in their power; for example, men would not let women make decisions in the communities. Several respondents described female leaders in the past as being idle, afraid, or unable to speak in front of a large group of people (due to religious beliefs), and being dominated by their male colleagues. A male community leader gave an example of how he used to ignore his female colleagues, but now realizes they should all work together. One female beneficiary commented that another reason for the lack of female leaders in the past was lack of education, but now that women had the chance to attend the literacy school, the situation has changed.

Most respondents agreed that after CCJP trainings women are able to speak in front of men and apply for leadership positions, encouraging each other to apply. The trainings brought awareness that women can also be effective leaders and should be considered for leadership positions equally (something many respondents mentioned that they didn't consider before and thought that only men could do). CCJP also held multiple sessions with community leaders to advocate for women to be given leadership roles and opportunities to voice their opinions. Several men commented that when they choose leaders, they consider women equally and based on their characters and their abilities to lead. One community leader noted that now women are even able to compete with men for leadership positions. Another community leader remarked:

> *In the past, a woman would not speak in public, because she would feel uncomfortable. But because when the project came, it empowered us women…, the*

> *important thing [is], even when we choose leadership positions, women are now able to lead a group of men because, we have been empowered by CCJP. (CL64)*

One government staff member described a change he has observed. He noted that when CCJP conducted initial sensitization meetings with local community leaders, one female village head refused to speak to the public and delegated the task to her male colleague. He explained this happened because the local leader was "embedded with cultural and religious background that [says] women in Islamic religion are not—most of the times—allowed to speak in public" (GE53). However, after the leadership trainings she was able to address the community herself. This change has resulted in **many women occupying leadership positions both within the grant activities and outside of them (positions that were previously held by men only or were dominated by men).** Leadership positions include chairperson, secretary, treasurer, chief, chief counselor, village tribunal, and leaders in various committees such as ADCs, VDCs, school committees, and health committees. Beneficiaries also reported an increased participation of women in community activities. Women are now reportedly at the center of development both in the home and community. One female beneficiary noted that there is a female leader in every committee in her community (for example, the natural resource committee and school committee). However, one community leader observed that the increase in leadership positions for women has been in community activities and activities with CCJP or similar organizations, but there hasn't yet been a significant increase in government leadership positions among women.

5. Changes for female household heads in community decision making

Respondents reported that with the growing number of community members sensitized on gender issues, and women involved in community activities and leadership positions, there has been a noted **change for female heads of households as well.** This is driven by the change in community members' perception about what a female head of household can or cannot do as well as greater involvement in community activities by female heads of households. One male beneficiary explained: "Now there is no such thing as 'she is a widow and cannot speak in public.' There is no such thing. Because the women were sensitized, every woman is active now. Because of this, they are able to hold positions" (FG_M17). Several respondents noted that widows and single women were particularly discriminated against in the past, however, that has changed. One community leader explained:

> *For those households that are self-reliant, they were being discriminated against, they weren't really considered. People would say, 'Aaah since you are alone and you are a woman who has no spouse, how can you benefit us? But we want those, those that have husbands so that we can work with their husbands.' So it would happen that those people who are widows or divorced, remained undeveloped. They were not considered in activities. (CL64)*

A few respondents noted that female heads of households are also more involved in community activities such as building bricks to construct clinics, churches/mosques, and schools.

D. Findings on ENRM activities

Research questions on the effects of ENRM activities

- To what extent did the intervention lead to adoption of conservation agriculture and land management practices by farmers and communities?
  - Which land management practices are more readily adopted by farmers and communities, and why? Are there differences in adoption between male and female farmers?
  - Is it possible to differentiate between effective training approaches and practices that farmers are predisposed to adopt? If yes, are certain training methods associated with greater farmer adoption? Are different training methods associated with better results for male and female farmers?
  - What was the relationship, if any, between ease of adoption, farmers' perceptions of effectiveness, and farmers' tendency to adopt different practices?

In this section, we examine the outputs and nascent outcomes related to CCJP's ENRM activities. First, we look at ENRM promoted activities to understand whether, how, and why activities were adopted and key factors driving outputs. We then look at outcomes that have started to emerge. Throughout this section, we answer the research questions shown in the text box above.

Table VI.4 summarizes our key findings on the adoption of ENRM practices by research topic, based on our analysis of stakeholder interviews, focus groups, and grant activity documentation. Following the summary findings table, we provide a deeper analysis of adopting ENRM practices to answer the relevant research questions.

Table VI.4. Main themes on adoption of ENRM practices by research topic

Research topic	Main themes
Training methods	• Several training methods were used for the ENRM practices: REFLECT circles (which incorporated class learning and group work), hands-on demonstrations, and field visits. • Many respondents mentioned that hands-on demonstrations were particularly effective because participants had a chance to observe how the activity was conducted and then practice it.
Adoption of SLM practices	• Women were more engaged in the SLM activities than men were. • The majority of people who attended the trainings adopted the SLM activities promoted. • Activities that were widely adopted included tree planting and establishing forests from the seedlings distributed by the grant; not cutting down trees; and managing forests by making fire-breaks.

Research topic	Main themes
Characteristics of practices that lead to adoption and non-adoption	• Adoption was driven by visible benefits of a practice. • The provision of materials and inputs might have helped adoption, but only when accompanied by visible benefits of the practice. • Visible benefits led to practices spreading through communities and to other communities. • Not seeing or understanding benefits led to non-adoption.

1. Adoption of conservation agriculture and land management practices

Most respondents agreed that the majority of people who attended the trainings adopted the ENRM activities. Widely adopted activities were tree planting and establishing forests from the seedlings distributed by the grant; not cutting down trees; and managing forests by making fire-breaks. These activities were conducted by communities at large, which contributed to the wide adoption. One grant staff member mentioned that during monitoring visits, CCJP was able to see the nurseries and the forests that the local communities started to manage on their own. Making fertilizer from manure was also adopted, but mostly by beneficiaries who received goats or had livestock and were able to buy additional fertilizer to make a mix. A few beneficiaries mentioned other farming and soil preservation activities that had fewer participants and, therefore, were adopted on a smaller scale: planting of vetiver grass, making contour bands and ridges, crop rotation, conserving water, practicing minimum tillage, and leaving maize stalks in the field.

Cropland in southern Malawi

When examining the differences in adoption by gender, most respondents agree that **women took a central role and adopted most of the activities, while fewer men actively adopted the practices.** Respondents provided various reasons for the difference by gender. Some respondents noted that women were more motivated to learn and improve themselves and their households because they were the primary victims of gender discrimination and environmental degradation. Others noted that women were more likely to be available to take part in the activities because they stay in the village, taking care of their families, while the men are mobile and many leave in search of work in South Africa. Some said it could be because their communities have more women than men (polygamy was also mentioned as being common in the area). Finally, greater motivation among women in a matrilineal society along with men's particular interest in financial benefits appear to underscore the gender difference in adoption of ENRM practices. One grant staff member believes that men are less motivated to take care of the land. He said:

> *It is a matrilineal society where men go and stay at their wives' places. And then such being the case, sometimes they may not be responsible in terms of taking care of the environmental because they know one day they are going to go back to their home should something happen. (GS_M51)*

Grant staff members and government officials who were interviewed noted that, on the other hand, men were more eager to adopt the activities that had a direct economic benefit or exchange, such as a cash payment. One grant staff member said, "When […] they are able to see that there is an economic element attached … you find that there are more males adopting it than females. But in situations where no economic aspect is attached to that, you find that most adoption is female" (GS_M63).

2. Training methods for ENRM practice adoption

A number of training methods were used for the ENRM practices. Of them, many respondents mentioned **that hands-on demonstrations were particularly effective because participants had a chance to observe how the activity was conducted and then practice it.** After practicing, they could see whether the activity was effective and could then replicate it on their farm. One government official explained the advantage of hands-on demonstrations over just doing classwork:

> *They just pretend in front of a teacher that they have understood, but if we are doing that thing together, [that] is when you are able to remember better. They remember that 'oh that explanation with what we were doing was done like this.' So those things we were doing together makes things work very well because people […] were able to understand right there and were … interested with what was happening right there rather than just telling them. (GE53)*

Hands-on demonstrations were not available in all areas, however. **Different combinations of class learning, group work, and field visits were used and several beneficiaries noted the effectiveness of the training methods.** Beneficiaries from one area in particular discussed that they were mainly trained in class where they listened to the explanations and were able to take notes for future reference. They mentioned that the training methods were sufficient because adopting the activities (for example, planting trees) wasn't difficult. Several other beneficiaries mentioned that doing the activities in a group and as a community at large made it easier. One of those beneficiaries explained, "Many people adopted because when we were planting the trees we were together. It was not only the group, but the community at large" (FG_M67). Another beneficiary who participated in field visits to other areas found those to be helpful:

> *The best way I realized was that one of taking a person from here and visiting other areas where things are happening because you see things with your eyes and you relate with what they taught you. This inspires you that if you work hard you will achieve just like this. (CL_M60)*

One grant staff member and one government official thought that the **REFLECT methodology was an effective training method.** The grant staff member explained:

> *I should suggest REFLECT [circles] because you engage the entire community. […] Because of the views that the communities provide in such sessions, you are able to get an issue that represents the views of members of the community for this particular village X. […] If they have enough time to actually make discussions, [analyse] what are the advantage and disadvantage of ABCD that we are about to adopt, in that case you will be able to excel and achieve whatever you want because it's coming from the community themselves rather than being imposed by others or by external forces. (GS_63)*

A few beneficiaries thought that **adoption also depended on who was training them.** Some of them stated that they preferred to be trained directly by CCJP or government officials rather than other people in the community, because they could then ask questions and be assisted directly and thus could understand better.

3. Characteristics that led to practices' adoption or non-adoption

There was a general consensus among respondents that the **biggest reason to adopt ENRM practices was that beneficiaries understood their benefits and how the practices could help transform their livelihoods.** For example, tree planting was widely adopted because of the benefits like shade, restoring fertility, and firewood for home use. One beneficiary explained:

> *Before the lessons came, we could not manage to farm for a longer time in a day because there was no moisture in the soil as compared to how it is these days because of the trees we planted with help from these lessons we were taught. That is why we adopted. (FG_X6)*

Another added:

> *These skills are what has made people realize that this is our country; […] If we [continue to] do this, we are going to destroy it, and it's us who are going to suffer as a result. Let us stop these practices and start doing things that our country, Malawi, wants. Surely this change is available and if it continues, our grandchildren would not believe us when we will be explaining to them that this mountain was treeless but trees returned with the skills from CCJP through Millennium Challenging Account. (FG_M9)*

Some beneficiaries gave examples of the benefits of other activities. For example, making fertilizer from manure helped them save money, and leaving maize stalks in the ground led to increased harvest. A few beneficiaries also mentioned that, after the adoption of bylaws, people were conscious of the repercussions they would face for cutting down the trees.

Some respondents commented that **what facilitated the adoption of some of these activities was that CCJP provided the materials** and distributed tree seedlings and vetiver grass seeds. Some communities that received seedlings were dedicated to the activity and even watered the seedlings during the period of a dry spell to ensure their survival. However, one grant staff member noted that some communities received the seedlings but did not plant them and/or

planted them but did not care for them, and as a result they wilted. This suggests that the provision of the materials might not be enough. Seeing the benefits of these activities again seemed to be one of the keys. One community leader gave an example: "From this project I got some seedlings, which I have planted on my plot at home where I planted my own trees. After seeing good progress of the trees, I decided to have my own forest" (CL49). In a step toward sustainability, a few beneficiaries also mentioned that CCJP encouraged them to also procure or produce seedlings on their own. Another community leader gave an example:

> *When you find a tree anywhere, even when you find that the M'bawa fruit has fallen down, we are encouraged to take it, and plant it at home. When you water it, you notice that it has germinated. When you take care of it, you find that you have […] M'bawa at the household. I see that a lot of us are adopting that too.* (CL64)

Many respondents commented that **more people started to adopt as the grant took off after they starting seeing others benefiting**. For example, one community leader said that in his village there were members who at first thought the initiative was useless, but after they saw the benefits others were experiencing, they decided to join as well. Another community leader gave an example of other communities reaching out to them during the last month of the grant to ask for help in adoption of similar activities in their communities:

> *Yes, we have two group villages like group village [1] and [2]. In the past they were not participating and did not know the importance of nature, but this year, they have invited us to teach them because they are admiring us and they want to reach where we have reached. (CL_M60)*

Another **explanation of non-adoption** is **misunderstanding the benefits of a practice**. One focus group participant gave an example of people who did not understand the benefit of not cutting down trees:

> *For example, […] here many people, half of the majority, believed in felling trees and burning charcoal and selling it to support their livelihood. […] CCJP has come and launched a program to take care of natural resources and that people should not cut down trees. Men used to have hatred; they would say, 'Why should I attend such meetings?' Instead of participating in such meetings, they used to go to the bush and cut down trees. Those people still exist, though there is this program of protecting nature, they are against it because of […] poverty or ignorance. […] (FG_M17)*

Several respondents noted other reasons why some participants did not adopt the ENRM activities. Grant staff members cited **low literacy levels** (likely a barrier for participants to fully understand the trainings) and **cultural barriers**. A few beneficiaries mentioned that some people **did not want to do the work without payment or reimbursement** (such as receiving an allowance). Other barriers mentioned included resistance to change and hesitancy to adopt, tree seedlings and vetiver grass seeds being distributed late, and being elderly. A few beneficiaries also listed transport as a barrier to reaching trainings.

Many beneficiaries and community leaders **reported seeing emerging outcomes as a result of adopting the ENRM activities. The outcome mentioned most often was an increase in crop yields.** As one community leader noted: "The sort of change is that in the past before this project came, we wouldn't harvest much, but now that we have adopted the practices of CCJP we're able to harvest plentifully" (CL52). A focus group participant agreed and noted the difference between those who adopted the activities and those who did not:

> *There is a difference in that those that adopt the land and natural resources management procedures properly tend to yield more crops as compared to those that did not. The individual lacks no food at their household whereas for those that are reluctant, it is usually hard for them to get high yields because they don't protect their land. (FG_X7)*

Other nascent outcomes reported included improved soil fertility, less land erosion, establishment of gardens and forests, a reduction in cutting of the trees and charcoal burning, less reliance on commercial fertilizer, less water run-off on farms, and less flooding.

E. Sustainability of grant activities

Research questions addressed in this section

- What are stakeholders' perceptions of the sustainability of grant activities to improve SLM and address social and gender barriers? What factors were driving beneficiaries to continue to SLM practices?

Because we conducted interviews near the end of the grant activity period, we provide an interim assessment of the prospects of activity sustainability from the perspectives of activity stakeholders.

Overall, stakeholders were optimistic about the sustainability of grant activity based on the extent of adoption of interventions during the implementation period, the benefits people have observed, and support from community leaders and government officials. Most respondents agreed that intervention communities would continue applying the gender concepts they learned through the trainings under the SGEF activities. Many respondents also thought that the ENRM activities would continue because participants understood the importance of protecting the environment and saw the benefits of the practices. Even though most beneficiaries thought the grant's timespan was too short to clearly lead to the outcomes, they remained hopeful. It is worth nothing that a number of beneficiaries expected that another organization would come to the area to continue working with them, based on their previous experiences with other organizations that have come and gone from the area.

We used a sustainability matrix to identify and examine four dimensions of sustainability and the factors that support or hinder them. We assessed stakeholder commitment to SGEF and ENRM

practices, resource availability, and political support. Table VI.5 summarizes our interim findings on factors that may support or hinder the longer-term sustainability of grant activities implemented by CCJP to improve sustainable natural resource management and address social and gender barriers.

Table VI.5. Facilitators and barriers to sustainability of CCJP grant activities

Dimensions	Facilitators	Barriers
Stakeholder commitment to SGEF practices	• Broad-based acceptance of gender equality concepts • Observed benefits of adoption of SGEF practices	• Some community members may forget the gender concepts
Stakeholder commitment to ENRM practices	• People understood the importance of protecting the environment • Beneficiaries saw the benefits of ENRM practices • Demonstration effect in other communities	• The inertia of old practices might revert back, and forest may not be taken care of • Timeframe for the grant was too short
Resource availability	• CCJP prepared to continue supervision and technical support of activities in the post-grant period • Materials provided by CCJP will continue to support activities	• Lack of materials may erode prospects of sustainability for some activities •
Political support	• Government support and awareness among community leaders • Established bylaws for livestock pass-on activity, and protecting forests	• None identified

1. Stakeholder commitment to SGEF practices

Key facilitators that promoted stakeholder commitment are broad-based acceptance of gender equality concepts and their observed benefits. Most respondents identified that the community members' adoption of the concepts related to gender equality, and having seen the benefits of the corresponding practices, are key facilitators of sustainability of applying the gender concepts they learned through the trainings. Several male beneficiaries noted that in the past the community did not understand that women could be leaders, can speak in public, and participate in businesses, but many in the community are now aware of gender equality concepts and have seen the benefits. For example, several men commented that they've seen the benefits of sharing the household work and their wives contributing to the economic development of their households. Many women beneficiaries commented that they are not going back to the old ways now that their husbands allow them to leave the house and participate in various economic activities. Some noted that they would pass on the messages to their children. One beneficiary explained this view, saying, "Yes, as a parent I need to pass the message to my children that there is no job for a particular sex, hence they will grow with that culture and pass it on to future generations" (WH_F58).

A potential barrier to sustainability is that some community members might forget the gender equality concepts. A few respondents thought that some in the community might forget

the gender concepts they learned in trainings. One community leader in particular thought that men would backslide because there would be no one to encourage them.

2. Stakeholder commitment to ENRM practices

People understood the importance of protecting the environment and saw the benefits of the practices. The realization among community members and leaders of the need to protect the environment as well as the beneficiaries' experiencing the benefits of sustainable natural resource management serve as key facilitators underscoring the stakeholder commitment to sustaining the ENRM activities implemented by CCJP. Many beneficiaries reported that they plan to continue planting trees and vetiver grass. For example, beneficiaries reported already seeing outcomes in terms of soil fertility and increased harvest. Many beneficiaries reported that they plan to continue planting trees and vetiver grass. A few respondents mentioned that the community developed a sense of ownership over the grant activities, and grant staff members remarked that the level of ownership among the communities was high, which bodes well for sustainability. However, one grant staff member remarked that even though many beneficiaries have shown interest in continuing with the activities, he was concerned that some areas might revert back to the old ways, and the forests would not be taken care of. Some beneficiaries also shared the opinion that activities like tree planting would not continue because the timeframe for the grant was too short, and they did not see the promised benefits.

Demonstration effect in other communities. Some respondents said that other communities nearby also started implementing the activities, and they thought that adoption would spread. For example, the forestry department reported that other villages began to contact them because they saw results in the grant-targeted villages and wanted to implement similar activities.

3. Resource availability

CCJP is prepared to support sustainability of activities in the post-grant period. CCJP will continue to provide supervision and technical support for grant activities as communities will continue to implement them. CCJP's parent organization, the Mangochi Diocese, incorporated this technical support into their strategic plan for 2017 through 2022. CCJP also plans to provide sensitization on gender-related issues to larger communities in the area in Mangochi, Balaka, and Machinga Districts. In addition, CCJP took the following actions to lay the groundwork for the beneficiaries to continue with grant activities after the end of the grant.

- CCJP handed over the grant activities to local government officials**.** For example, the agriculture department will monitor the livestock pass-on program to make sure livestock are passed on to other group members. The office of District Community Development has also taken on some REFLECT circle facilitators who will be on the government payroll.
- CCJP provided materials, such as bicycles, to assist government extension workers in monitoring grant activities and facilitators in attending the meetings.
- CCJP facilitated sustainability plans and bylaws generated by community members and signed by local authorities.

Some materials provided by CCJP will continue to support activities. Several beneficiaries expressed that with the materials they obtained from CCJP (such as slashers, watering cans), they would establish tree nurseries including fruit trees, which they would use for commercial purposes. One grant staff member noted that village forest committees received bicycles from CCJP and they will continue to monitor activities after the grant ends. Government officials and grant staff members thought the communities will continue with beekeeping because it did not require a lot of materials. CCJP's final report also noted that communities already started initiatives to have their own beehives during the grant implementation period. Several respondents mentioned that VSLs and REFLECT circles will likely continue as well. The bookkeeping materials for those groups were provided by CCJP, but some communities are planning on saving money to buy the materials they need, although some were of the view that this will lead to a fall in attendance at the groups.

Lack of materials may erode prospects of sustainability for some activities. Some respondents had concerns that although the adult literacy schools might continue because people have been inspired by those who graduated, the lack of classroom materials would reduce the quality of teaching and discourage people from participating. One government official worried that a lack of resources like transportation and fuel would affect the monitoring of activities. One community leader also worried that lack of materials like seedlings and tubes for nurseries would prevent the community from continuing with the activities.

4. Political support

Government support and awareness among community leaders. Several community leaders noted that because the government is also encouraging the 50/50 (gender equality) campaign, it may help with sustaining the gender equality practices supported by the SGEF activities. Community leaders also remarked that everyone is aware now that men and women are equal and can work together, women have no fear and have been trained on leadership skills and will continue to use them. One of those community leaders summed up these thoughts, saying, "Because they are trained, these women have courage and no fear. They do things in order. That's why it will continue because the women are running the committees just fine and things are moving well" (CL59). Another community leader noted that his community is prepared to hold regular meetings to remind everyone of gender-related issues and not to discriminate against women.

Established bylaws. Several respondents thought the livestock pass-on program would continue because of the bylaws implemented to ensure the livestock gets passed on and provide guidance on how to select future beneficiaries. In addition, one government official noted that the communities have started taking measures to continue some of the ENRM activities implemented by CCJP by forming forest committees, coming up with bylaws to protect the forest and agreeing to enforce them, and establishing penalties for cutting down trees.

VII. WOLREC CASE STUDY FINDINGS

Summary of Key Findings

Implementation (RQs 1 and 2)

- WOLREC implemented most of its grant activities as planned.
- WOLREC used REFLECT circles as its main implementing structure to gain community buy-in and participation for its wide-ranging ENRM and SGEF activities—adult literacy classes, gender equality trainings, village savings and loans (VSLs), tree planting, livestock management, and beekeeping.
- WOLREC planned to only implement SGEF activities. In the second year of implementation, it added ENRM activities in response to beneficiaries' needs.

Findings on ENRM activities (RQ 3)

- Most participants adopted the ENRM interventions by the end of the grant; there was some spillover to nonparticipants, who began adopting several practices after seeing how well they worked out for participants.
- The most readily adopted interventions were planting trees, mulching, and making homemade fertilizer. Beneficiaries reported that understanding the activities' objectives from the beginning, taking ownership of them, and seeing the benefits firsthand motivated them to adopt the interventions. Both men and women adopted the interventions, but women were at the forefront.
- Demonstrations and participatory training methods stood out as the most effective learning modes for both men and women, but a few interview and focus group respondents noted that women in female-only training groups were more engaged with the training.

Findings on SGEF activities (RQs 4 and 5)

- Respondents reported a clear change in household gender roles. Women said they were participating more in household decision making, and there was a more equal division of labor.
- Beneficiaries said the number of women in leadership positions in the community increased during the activity implementation time.
- Female-headed households reported having more economic opportunities available to them after they participated in grant activities.

Sustainability (RQ 6)

- Most respondents were confident that the activities would be sustained, but that was just as the grant activities ended, when WOLREC was still present, and respondents were still enthusiastic about the interventions. The conditions most likely to support sustainability are that beneficiaries understood the importance of taking care of natural resources and the environment, had already adopted the activities, and had experienced the direct benefits to their livelihoods.

The Women's Legal Resources Centre (WOLREC) in Malawi received a $442,461 grant from MCA-Malawi to implement a set of grant activities titled "Promoting the Socioeconomic Status of Women to Achieve Sustainable Environment and Natural Resource Management" in the Balaka and Ntcheu Districts. The three-year intervention started in August 2015 and ended in

July 2018. The overarching goal (as specified by WOLREC in its proposal to MCA-Malawi) was to "contribute towards the reduction of poverty through economic growth by enhancing the impact and sustainability of the environment and resource management in the reduction of weed infestation and siltation of the Shire River leading to the improvement of power supply in Malawi."

The intervention had three objectives:

- Increase women's participation in decision making processes about land and other assets, and on sustainable management of natural resources.
- Improve the capacity of both women and men to identify and address gender dynamics and norms that limit women's and men's participation in sustainable natural resource management.
- Enhance women's and men's capacity to manage their family's economic resources, economic knowledge, and opportunities.

For this case study, we analyzed program documentation, reports, and primary data, including WOLREC's end-of-grant report (submitted to MCC in July 2018); a final review report produced by an independent consultant (submitted to MCA-Malawi in September 2018); and transcripts from five focus groups and 15 interviews conducted by Kadale Consultants, a local data collection firm, in partnership with Mathematica. The five focus groups had an average of 10 grant participants each, and the interviews were conducted with community leaders, government agents, WOLREC grant staff, and individual beneficiaries during the period of June–August 2018.

A. WOLREC interventions and program logic

Research question addressed in this section

- Which intervention was implemented and what was the program logic underlying it?

WOLREC conducted community sensitization meetings to introduce the grant activities to the local leaders and community members and give them a chance to ask questions about the organization and the grant activities. Representatives of different local committees for area development (ADCs), village development (VDCs), natural resources, water, and women's rights participated.

The meetings helped WOLREC establish REFLECT circles, which were the main implementing structure used throughout the grant activities.[18] During the initial REFLECT circles with the

[18] REFLECT, which stands for Regenerated Freirean Literacy Through Empowering Community Techniques, is a participatory technique to support constructive and open community conversations to address common development challenges.

local community members and leaders, WOLREC facilitated the discussions to identify the challenges the communities were facing. WOLREC also conducted a baseline survey to get a broader picture of the community background and trends. These processes revealed the following challenges that guided the intervention implementation:

- **Poor land management.** Communities learned that poor land management practices—such as cutting down trees to produce charcoal—led to deforestation, land degradation, soil erosion along the rivers, and the disappearance of indigenous fruits and trees, and was also one of the major contributing factors to the heat waves that were taking place in months that are usually the coldest.
- **Limited economic opportunities, especially for women**. The baseline survey revealed that the intervention area was beset by poverty (and periods of food shortages) mostly because of its limited economic opportunities and widespread illiteracy (for example, the majority of women in the initial REFLECT circles in Ntcheu were pre-literate). Women (especially those from male-headed households) also did not participate in income-generating activities (IGAs) as much as men did.
- **Inequitable participation in household and community decision making and inequitable control over natural resources**. Both the male and female beneficiaries who were interviewed made it clear that men in the intervention area have traditionally been more responsible for generating income and were also in charge of household decision-making. (Several men commented on the difficulties of being the sole breadwinner, and many women talked about being excluded from household decision making in the past.)

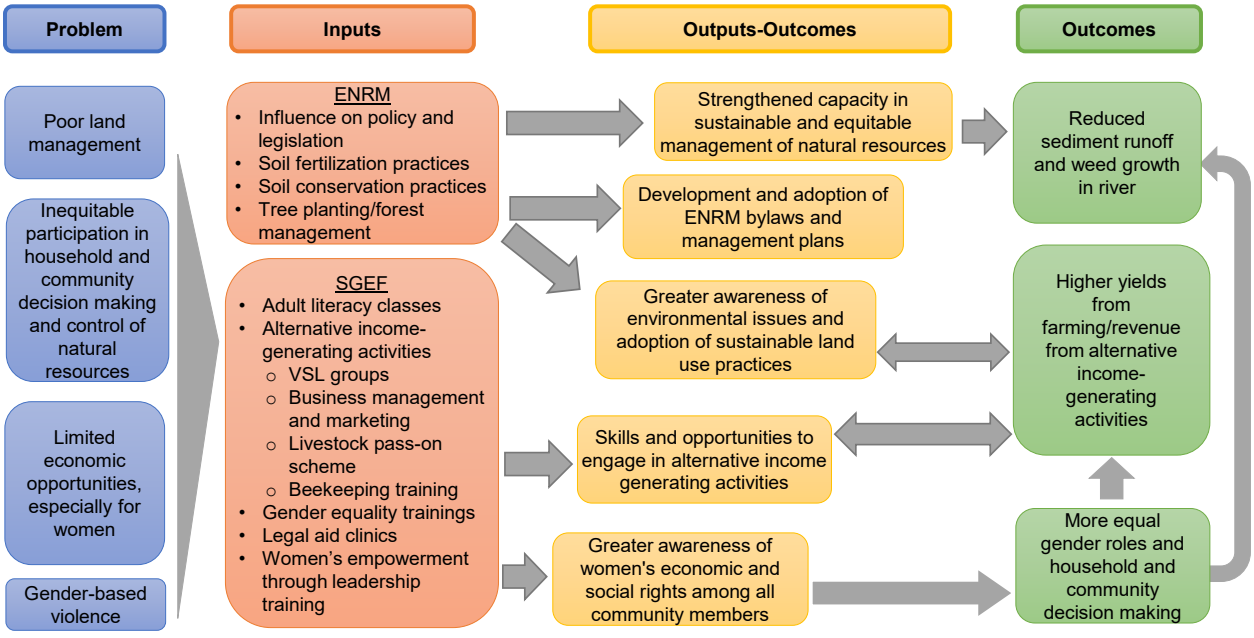
  Women also participated less in community development activities. One grant staff member reported that historically, men have been considered more capable than and superior to women. He explained, for example, that when other organizations came to the area to provide trainings in the past, they only taught men how to grow trees and take care of the forest, assuming that women could not. Consequently, women did not think they needed to take part in environmental conservation. These sentiments were voiced by many of the beneficiaries who were interviewed.

  WOLREC's baseline survey yielded comparable findings: women from male-headed households had less influence over household decisions (including those about land and other productive assets) and less control over household income than women from female-headed households did. Even though the survey also revealed that the trends were changing, and women were increasing their participation in household decision making, more work needed to be done to achieve equity.
- **Gender-based violence (GBV)**. Overall, the WOLREC baseline survey revealed that in the two intervention districts, there had been a reported increase in the number of households where men and women were jointly performing activities, and more men are performing household chores and splitting household work. However, GBV was still prevalent in the communities, perhaps as a form of backlash toward changing gender roles.

To address these challenges, WOLREC implemented both ENRM and SGEF activities, although the main focus was on SGEF activities. WOLREC implemented the following SGEF activities: REFLECT circles, adult literacy classes, gender equality and women's empowerment through leadership trainings, legal aid clinics, village savings and loans (VSL) groups, business management and marketing training, a livestock pass-on scheme, and beekeeping training. In addition, WOLREC implemented the following ENRM activities: tree planting, soil conservation and fertilization trainings, and influence on policy and legislation.

Based on program documentation and staff interviews, we developed a logic model to summarize WOLREC's program logic for this intervention (see Figure VII.1). The SGEF and ENRM activities implemented under the grant (**inputs**) were aimed to generate greater awareness of women's rights and environmental issues, which would lead to more women participating in decision making on community and natural resource issues, adoption of sustainable land use practices, and less reliance on natural resources through engagement in alternative IGAs (**outputs**). Ultimately, the grant activities were expected to lead to three complimentary **outcomes**: more equal gender roles and decision-making; leading to and supporting, on the environmental side, changes in land use practices expected to reduce sediment runoff and weed growth in the river basin; and on the household livelihoods side, changes in farming practices and economic activities expected to increase household income. In the longer run, the interventions were intended to both improve hydropower generation and reduce poverty.

Figure VII.1. Program logic for WOLREC's grant activities



The grant sought to benefit at least 4,500 women and 2,000 men as direct beneficiaries, and 21,375 women and 7,125 men as indirect beneficiaries.

B. WOLREC grant implementation

Research questions addressed in this section

- How was the program implemented?
  - How did implementation change from what was planned, and why?
  - Which implementation factors supported or hindered the completion of the intervention?

WOLREC's activity implementation was mainly guided by four key principles:

1. **Sensitization meetings with stakeholders and community leaders.** WOLREC began implementing the grant activities by meeting with local government officials and leaders in the intervention area to introduce the activities and get their buy-in. WOLREC held meetings with district executives from various local government departments (forestry, social welfare, water development, education, agriculture, and health) as well as NGOs who were implementing other MCA-Malawi grant activities in the two targeted districts (Self Help Africa and Concern Universal in Balaka, and Training Support for Partners in Ntcheu).
2. **Trainings built around REFLECT circles and demonstration methods.** WOLREC designed the intervention using a "train the trainer" model in which it trained community members as REFLECT facilitators who would in turn train other community members. Through the REFLECT circles, community members devised action steps they could take to address their challenges, including seeking assistance and social services from the relevant government officials.

   WOLREC conducted trainings (through the REFLECT circles) to raise awareness about environmental issues but mainly used demonstration methods to implement the ENRM activities, beginning by teaching the participants in a class setting and then going out to practice in the fields. As part of the trainings, community members learned various techniques for soil management, tree and forest management, and conservation agriculture. Examples of demonstration activities conducted by WOLREC included planting trees and teaching beneficiaries how to care for them, preparing tree nurseries, practicing soil conservation by constructing contour ridges and box ridges, incorporating residue (burying maize stalks so they can rot and fertilize the soil), mulching, demonstrating soil enrichment methods (using manure to make fertilizer), and planting vetiver grass along the river to prevent soil erosion.
3. **Collaborations with local government officials.** In addition to working with community members to identify challenges and possible solutions and execute the grant activities, extension workers from various local government offices provided their assistance throughout the grant's implementation, including community development assistants, agriculture extension development officers, forest assistants, district community development officers and chiefs.

WOLREC also collaborated with local government officials to provide more trainings and technical assistance to the participants in REFLECT circles. For example, the forestry department helped with trainings on tree planting and forest management.

4. **Laying the groundwork towards sustainability of grant activities.** Towards the end of the grant, WOLREC conducted activities to lay the groundwork for the beneficiaries to continue with activities after the end of the grant. WOLREC notes in its end-of-grant report that:
    - WOLREC organized exit meetings with beneficiaries and stakeholders to present findings about the activities and hand the activities over to the district committee members.
    - WOLREC produced a booklet of best practices to help facilitators and local leaders should they want to continue with the REFLECT circles and other activities.
    - WOLREC worked with other NGOs (which will continue to implement other activities in the intervention area) and asked them to support the beneficiaries after the grant ended.
    - WOLREC worked with local communities to draft bylaws intended to reduce the occurrence of GBV, early marriages, deforestation, and charcoal production, then facilitated meetings with the local government representatives to get the bylaws passed. For example, youth are sent to monitor the forest and report anyone cutting down a tree to the chief. Anyone cutting down a tree without authorization receives a fine and is expected to plant 10 trees and care for them to ensure they grow.
    - Although the grant activities ended, WOLREC's end-of-grant report mentions that it will continue the legal aid clinics for the beneficiaries.

The package of interventions WOLREC implemented and the scale of implementation are presented in Table VII.1. Overall, WOLREC established 120 REFLECT circles and trained 160 circle facilitators. As part of the SGEF activities, WOLREC provided trainings on gender equality and women's empowerment. Also under the grant, 761 community members attended adult literacy classes and WOLREC helped 145 women under their legal aid clinics. In addition, the grant's SGEF activities supported alternative IGAs by establishing 120 VSLs, providing business and marketing training to 416 VSL members, passing-on 800 goats to households, and supporting beekeeping through training and distribution of beehives. As part of the ENRM activities, WOLREC provided trained community members in soil conservation and fertilization practices. In addition, the grant planted 188,493 trees with a survival rate of 88 percent.

Table VII.1. Overview of WOLREC grant activities

Activity[a]	N implemented
REFLECT circles	120 REFLECT circles were established; they had 160 facilitators and 4,800 members
ENRM activities:	
Tree planting/forest management	188,493 trees were planted with an 88% survival rate
Soil conservation practices	
Soil fertilization practices	
Influence on policy and legislation	80 percent of the REFLECT circles demonstrated an ability to demand social services from different duty bearers at the community and district levels.
SGEF activities:	
Adult literacy classes	30 adult literacy classes were established. Each class had an average attendance of 30 men and women, with over 80 percent women. 761 people (636 women and 125 men) attended the classes and took the final exam; over 65% passed the exam and were declared literate.
Gender equality trainings	241 traditional leaders, 60 ADC and VDC committee members, and over 200 men were trained
Women empowerment through leadership training	390 women were trained
Legal aid clinics	145 women were assisted
VSL groups	WOLREC established 120 VSLs in 120 villages; over 190 members accessed the capital injection loans.
Business management and marketing trainings	416 VSL group members were trained
Livestock pass-on scheme	800 goats were distributed; 909 people were trained on livestock management
Bee-keeping training	150 people were trained

[a] A description of each WOLREC grant activity is available in Appendix Table A.5.

WOLREC described several major adjustments it had to make to the implementation:

- The largest change was adding ENRM activities during the second year of implementation. Initially, WOLREC was planning to focus on SGEF activities exclusively but, during the initial stages of implementation, beneficiaries raised the need for ENRM activities during the REFLECT circles. To be responsive to community needs and after consultations with MCA-Malawi, WOLREC decided to include ENRM activities, which helped reinforce the overall objectives of the intervention.
- WOLREC set up legal aid clinics during the second year of the grant. WOLREC saw the need for the clinics after many GBV cases were handled in the REFLECT circles because people couldn't access to legal aid services in the communities.
- During implementation, WOLREC realized that the existing capital of the VSLs was not enough to give women loans of the size they needed to start or grow their businesses. In

response, WOLREC injected capital to allow women to take out larger loans. However, MCA-Malawi informed WOLREC that MCC does not allow those kinds of interventions, and WOLREC stopped the capital injections, ultimately pointing out that this likely slowed down benefits for VSL participants in contrast with benefits WOLREC saw from repeating capital injections on other projects.

These changes notwithstanding, WOLREC was able to implement most of the planned activities under the grant. The discussion below presents our assessment of how and why WOLREC achieved or did not achieve its intended targets and objectives by reflecting on the factors that facilitated or hindered WOLREC's implementation of grant activities.

To identify the factors that supported and hindered implementation of the grant activities, we analyzed the case study data using an implementation effectiveness framework. With this framework, we grouped implementation facilitators and barriers into three categories: intervention design characteristics, implementation process characteristics, and environmental factors and community characteristics. Table VI.2 summarizes our findings from this analysis, which are described in detail below.

Table VII.2. Facilitators and barriers to WOLREC grant implementation

Category	Facilitators	Barriers
Intervention design characteristics	• Incentives aligned between environmental and economic benefits • Buy-in from local authorities and leaders	• Short activity timeline • Cost-reimbursement grant delayed some activities.
Implementation process characteristics	• Flexibility of the program to allow adjustments to meet donor and beneficiary needs, including adding ENRM activities, increasing the number of VSLs served, and offering business training	• Lack of access to legal aid services in the communities • Stopping capital injection to VSLs • Goats getting sick and dying shortly after they were given to beneficiaries in the first year of implementation • Few men participating in adult literacy classes • Delay in giving REFLECT manuals to groups, affecting their operations
Environmental factors and community characteristics	• None identified	• Some beneficiaries expected immediate benefits (for example, distribution of goats or maize). • Army worms were a problem in the fall of first and second years of implementation. • Dry spells were another issue in the first and second years of implementation.

1. Intervention design characteristics

WOLREC gave beneficiaries incentives that promoted both environmental sustainability and poverty reduction. **Beneficiaries found that engaging in sustainable land management activities was valuable for them because it required less labor and fewer expenses and**

resulted in higher crop yields. Buy-in from local authorities and leaders also facilitated implementation.

A design barrier to successful implementation was the **relatively short duration of the program**. WOLREC (like all MCA-Malawi grantees) had three years to implement the program, and stakeholders and grant beneficiaries agreed that more time would have made it easier to reach more people and would have laid the groundwork for sustainability. One grant staff member, for example, said it was not possible to achieve the ultimate intervention goal of improving the Malawi power supply by reducing weed infestation and siltation of the Shire River in the time allowed.

Weeds growing in The Shire River

Another design barrier was that WOLREC, like other MCA-Malawi grantees, received advance funding for grant activities in the first year, but during the second and third years, the grant went to reimbursement of actual costs because of a change in the MCA-Malawi invoicing system. The change created a cash flow challenge and caused implementation delays because WOLREC was unprepared to pay for activities up front and be reimbursed.

2. Implementation process characteristics

WOLREC's flexibility and responsiveness to the needs of donors and beneficiaries did the most to facilitate implementation. WOLREC made several adjustments to its intervention: adding ENRM activities and setting up legal aid clinics during the second year of implementation, and providing a capital injection to allow women to take out larger loans.

During the first year of the grant, 20 of the 800 goats distributed to beneficiaries got sick and died soon after they were distributed. WOLREC successfully addressed the issue during the second year by immunizing the goats and training beneficiaries on livestock care.

Other challenges included the low numbers of men in adult literacy classes and a delay in MCA-Malawi's provision of REFLECT manuals, which postponed the start of the REFLECT groups and affected their initial operations. WOLREC mitigated the latter issue by working with officials at the District Community Development Office who were familiar with the REFLECT approach and provided their own manuals.

3. Environmental factors and community characteristics

WOLREC discovered that some people in the villages were used to receiving payment or food for participating in trainings and did not want to participate in activities unless they saw immediate benefits. For example, some beneficiaries who did not immediately receive goats as

part of the pass-on scheme decided not to participate. Others left the trainings because they expected immediate maize distribution, which they got from other projects in the area.

Environmental factors also hindered the implementation of WOLREC's activities. Fall armyworms and dry spells affected the intervention area in the first and second years of implementation. This resulted in lower crop yields and food shortages in the 2015–2016 farming season. This led people to put less money in VSLs: women were taking out loans to buy food instead of investing in their businesses. To mitigate the issues, WOLREC provided a capital injection to the VSLs in two districts so that women could get a larger loan at 10 percent interest. This motivated women to participate in the grant activities again. However, as noted, WOLREC later had to stop the capital injection at MCA-Malawi's request.

C. Findings on SGEF activities

Research questions on the effects of SGEF activities

- To what extent did the intervention affect gender roles in households and communities?
  - To what extent did the intervention lead to greater joint household decision making regarding land and natural resource management and household finances?
  - To what extent did the intervention lead to changes in division of labor on the farm and at home?
  - To what extent did the intervention lead to leadership opportunities for women? To what extent did the intervention promote female-headed household involvement in community decision making?

There was a general consensus among interview and focus group respondents that the SGEF activities have been widely adopted in the target communities. Many female beneficiaries mentioned that they are now participating in IGAs such as VSLs and various small businesses, including selling honey from beekeeping. Beneficiaries and stakeholders alike praised the success of adult literacy schools. One government official lauded the high graduation rates:

> *I would give an example of the women who were attending adult literacy schools through the REFLECT Circles. Most of them graduated and were given certificates. This was something that was happening in public, you could see that the women were proud of themselves, and they were even promising never to stop because they have seen the benefit of it all, and the certificates also helped them to be recognized in the*

> *village. So to them it's something they are proud of, and they can even teach their children to work hard in school to achieve something in their own lives. (GE2)*[19]

Once beneficiaries had adopted the interventions and thereby achieved the desired outputs, some of the outcomes emerged soon after the activities ended, when data collection took place.

After WOLREC provided trainings, and the beneficiaries adopted new concepts about gender, many respondents reported that men were no longer considered the sole household breadwinners. Female beneficiaries said that many women gained financial literacy skills (managing budgets, getting loans, setting prices for their businesses, and the like) and felt empowered by WOLREC and their husbands to participate in VSLs and open small businesses (selling produce, trees, or livestock, for example) to generate income. This reportedly benefited both men and women. Several men said it became easier to manage their households with the help of their wives. They could rely on women, especially during the times when it was difficult to generate an income. One male beneficiary reported that he started encouraging his wife to participate in VSLs and grow her business after he saw the benefits it brought for his family. Many women commented that these activities have allowed them to be self-reliant or less reliant on their husbands. Women were able to use the money to buy food, pay school fees for their children, improve their houses, and buy livestock. One women noted, "For me, this is the first project to help women to be self-reliant and empowered" (WH_F3). Another women agreed, saying,

> *Women we used to be lagging behind on […] planting trees, hanging beehives, starting village banks […] We used to be looked down on in many ways, we were worthless in eyes of men […] but after the organization came, men understood it. Now women, we can't lie, we no longer suffer in terms of money, we do businesses, yet in past we used to just rely on men to give money from their pockets, but now … we just go to the bank and take money. (FG_F8)*

Throughout focus group discussions and interviews, both male and female beneficiaries repeatedly highlighted that after being trained by WOLREC, they realized that men and women are equal and are able to work together. Community leaders echoed the sentiment, and added that chiefs continue to sensitize their communities on gender equality. Several men mentioned that they realized women should be treated equally and allowed to participate in household decision making and IGAs. One community leader added that girls' education is now being prioritized because of the interventions, and she thought it has prevented some early marriages as well. One focus group participant gave an example of how he adopted the gender concepts in his family, saying,

> *I was dangerously abusive. […] The coming in of WORLEC has help me to understand why a women has to be treated fairly, [and] participate in decision making, leadership and economic activities. Right now my marriage is very healthy.*

[19] The following codes are used to identify the type of respondent being quoted: GS = grant program staff; CL = community leader; FG = beneficiary in a focus group; GE = government employee; WH = female SGEF beneficiary or husband of a female SGEF beneficiary; F = female; M = male. Numbers differentiate each unique interviewee.

> *This morning before I left home, I prepared water for my wife to bathe and ironed her clothes. […] I, together with my wife, encourage each other to plant trees which help to improve soil fertility, such as Msangu trees and many more.* (FG_M5)

Despite widespread adoption of gender concepts, a government official who was interviewed noted that it took some time for men to understand and adopt the gender equality concepts. Once they saw the benefits, however, they continued adopting them and encouraged others to do the same.

Table VII.3 summarizes our key findings on changes in joint household decision making, division of labor, and women's leadership opportunities as a result of WOLREC's SGEF activities. Findings are based on our analysis of stakeholder interviews, focus groups, and grant activity documentation. Following the summary table, we provide a deeper analysis of these changes.

Table VII.3. Main themes on adoption of SGEF practices by research topic

Research topic	Main themes
Joint household decision making	• There is now more joint decision making in households than prior to grant activities, especially regarding land management and financial decisions.
Division of labor on farms and at home	• There is now a more egalitarian division of labor in many families, with both men and women taking part in household and farming activities. • Men began to participate more in the tasks traditionally reserved for women.
Leadership opportunities for women	• Beneficiaries said the number of women in leadership positions in the community increased during the activity implementation time.
The involvement of female household heads in community decision making	• Female-headed households reported having more economic opportunities available to them after they participated in grant activities.

1. Joint household decision making regarding land and natural resource management and household finances

Most interviewed beneficiaries observed changes after the trainings provided by WOLREC. Men and women began discussing household issues and making joint decisions. Several male beneficiaries said they learned about the benefits of communication and started to include their wives in the financial and other household decision making processes, with benefits for the whole family as a result. In one focus group discussion, a male participant in WOLREC interventions described the changes he has made in this way.

> *The change is there, because at first when I brought money home I would decide on how that money should be used, but I didn't consider that maybe my wife has a problem and if we can use the money to address that problem we can bring about something more productive. But as of now when we find money, I sit down with my wife and decide on how the money should be used so that everyone should benefit, and we should develop our home.* (FG_M3)

Likewise, another man interviewed noted the types of decisions he now makes with his wife regarding land management: "I will give my own family as an example: we make decisions together in most … issues like soil fertility, manure making, afforestation along the river banks, but also planting vetiver grass along the river banks to avoid erosion" (WH_M2).

Several respondents also noted that women stopped fearing confronting their husbands about money, voicing their concerns, and offering their opinions. A few women beneficiaries even noted that communication and joint financial decision-making have led to a reduction in GBV. One grant staff member also reported a reduction in GBV at the district level.

2. Changes in division of labor on the farm and at home

Many respondents said that traditionally, women from the intervention area did more domestic and farm work than men did, but **after the trainings conducted by WOLREC, men began to participate more in the tasks traditionally reserved for women**, such as cooking, cleaning and doing the dishes, laundry, fetching water, bathing children, taking care of children and livestock, and the like. One community leader had observed men sweeping the house, for example, which is not something that would have happened in the past. Women also began to participate in tasks that used to be reserved for men, such as molding bricks, digging pit latrines, and working in the butchery.

Several male beneficiaries reported that they are ensuring the work at home and on the farm is more evenly distributed between men and women because they realized they can work together with their wives and saw the benefits of equitable division of labor for the entire family. One community leader explained that the trainings provided by WOLREC, where men and women participated together (on tree planting, for example) taught both men and women that they can work together. He reported that as a result, participants have adopted joint labor practices for household chores and farm activities.

A few men said they began farming together with their wives, and others commented that this change in the division of labor has also been passed on to children: male and female children equally participate in chores and farm activities, whereas before certain activities were expected of girls only. A female beneficiary summed up the changes she has seen:

> *Yes there is change. For example, in a household, both male and female children are born. Long ago we use to say cleaning of the dishes is for [the] girl child, drawing of water is for the girl child. The male child is to pick a hoe to the field with his father maybe to cut trees. But now both male and female child [are] cleaning the dishes and drawing water. Right now, a girl child is able to do agricultural activities, therefore, it is similar when a girl child is able to do activities like build a house. She will also be able to manage the environment and prevent soil erosion.* (WH_F2)

3. Changes in leadership opportunities for women

WOLREC provided leadership trainings to women that taught them how to effectively take up leadership positions. Although women leaders weren't prevalent before, several respondents

noted **an increase in the number of women in leadership positions** since the grant activities began. Beneficiaries and government officials could give many examples of women taking leadership positions that were traditionally reserved for men. Examples of those community positions were treasurer, chairwoman, facilitator, chief, and village head.

According to several respondents, few women were nominated as leaders before the intervention, and even if they were, they felt shy and unable to speak in public, and thought their opinions were not valued. Many female beneficiaries said that **the trainings taught women not to look down on themselves, increased their confidence, and encouraged them to take leadership opportunities.** Several men supported this view, reporting that they saw similar changes in their own wives who participated in the grant activities. After the trainings, many women reported they were no longer afraid and felt empowered to speak in front of groups of people. Several beneficiaries were motivated by examples of women leaders such as WOLREC's founder (who came to visit and establish the intervention in the villages) and Malawi's first female president.

Both men and women noticed that **women also began nominating other women to leadership positions**, whereas before they would automatically think of a male nominee. Interviewees also reported that men have started to encourage women to take leadership positions, and a number of men now view women leaders to be as capable as male leaders. One community leader remarked, "The encouragement from men has removed fear among women to take part in leadership positions" (FG_M19). Many respondents agreed that women felt inspired to take leadership positions, encouraged and nominated other women to be leaders, and led by example.

Leadership training was complemented by other grant activities, such as the adult literacy centers and VSLs, that gave women the skills and resources they needed for leadership. Literacy was highlighted as important by several respondents because, even if women were encouraged to take leadership positions, if they were pre-literate, their nominations would not be approved. VSLs provided another type of resource. As one government official put it, providing economic opportunities to women through VSLs was as important as literacy. She asked, "How do we empower women that do not have money?" (GE1).

4. Changes for female household heads in community decision making

Female heads of households[20] also reported having **more economic opportunities available to them** after participating in VSLs and other IGAs. One woman who participated in a focus group talked about gaining financial literacy and management skills that benefited how she manages her finances and allowed her to save.

> *My husband died a long time ago. But before WOLREC, I wasn't using my money well, because I didn't know how to save money or how I can use money properly. But this project has helped me to make appropriate plans for the money which I generate*

[20] In the transcripts from interviews and focus group discussions, it is not always clear if a women is the head of household unless she specifically mentions it, but we have data that indicate they were as involved as other women and reaped similar benefits.

from my business, and for that reason I am able to manage the money properly and am able to support my everyday life. (FG_F15)

Another female beneficiary who was a head of household was able to start a business selling beans and was considering expanding to sell other produce and start beekeeping. A third women, also a head of household, was able to send her children to school, whereas before the grant activities, she could not afford to. Other community members were inspired by the success of these female household heads. Several married female and male beneficiaries who observed how single women could support themselves as a result of the grant activities and training were encouraged to consider adopting the activities themselves.

D. Findings on ENRM activities

Research questions on the effects of ENRM activities

- To what extent did the intervention lead to adoption of conservation agriculture and land management practices by farmers and communities?
  - Which land management practices are more readily adopted by farmers and communities, and why? Are there differences in adoption between male and female farmers?
  - Is it possible to differentiate between effective training approaches and practices that farmers are predisposed to adopt? If yes, are certain training methods associated with greater farmer adoption? Are different training methods associated with better results for male and female farmers?
  - What was the relationship, if any, between ease of adoption, farmers' perceptions of effectiveness, and farmers' tendency to adopt different practices?

This section focuses on the ENRM interventions and the factors that influenced how widely they were adopted. We also discuss nascent outcomes stakeholders observed. Table VII.4 summarizes our key findings on the adoption of ENRM practices, organized by research topic. It is based on our analysis of stakeholder interviews, focus groups, and grant activity documentation. We go into more depth on the research questions after the table.

Table VII.4. Main themes on adoption of ENRM practices by research topic

Research topic	Main themes
Adoption of conservation agriculture and land management practices	• Most participants adopted the ENRM interventions by the end of the grant; there was some spillover to nonparticipants, who began adopting several practices after seeing how well they worked out for participants. The most readily adopted interventions were planting trees, mulching, and making homemade fertilizer. • Both men and women adopted the interventions, but more women participated.

Research topic	Main themes
Training methods	• Demonstrations and participatory training methods stood out as the most effective learning modes for both men and women, but a few interview and focus group respondents noted that women in female-only training groups were more engaged with the training.
Characteristics of practices that lead to adoption and non-adoption	• Beneficiaries reported that understanding the activities' objectives from the beginning, taking ownership of them, and seeing the benefits firsthand motivated them to adopt the interventions. • Reasons for not adopting the practices included barriers of literacy, misaligned expectations (described in detail in Section D), and resistance to change.

1. Adoption of conservation agriculture and land management practices

Based on interviews and documentation of the grant activities, there is a consensus that most of the community members who were trained in ENRM practices by WOLREC adopted the ENRM interventions they were trained on. Among the most popular interventions were tree planting, mulching, and making homemade fertilizer.

Respondents said that once community members started seeing the benefits of the ENRM activities, more members wanted to join the training groups. A few respondents estimated that about a year after the start of the grant activities, most of the participants had fully adopted the interventions. One community leader remarked that there was more interest in joining REFLECT circles than capacity to support them (WOLREC provided materials to REFLECT circles throughout the intervention, such as watering canes and wheelbarrows).

Participants also shared their knowledge with others who were not part of the training groups, either through disseminating information at public gatherings, discussing or demonstrating techniques with friends and family, or other methods. Nonparticipants seem to have been receptive. Several respondents talked about people who did not have a chance to join a REFLECT circle but adopted the interventions after they saw that their friends had benefited from the activities.

When examining the differences in adoption by gender, stakeholders and beneficiaries agreed that **both men and women adopted the interventions, but more women participated**. Initially, some community members thought the grant activities were designed for women only (because of the initial focus on SGEF activities) but later, men started joining as well. Men and women learned in trainings that they should be working together to preserve the environment and natural resources, and both men and women reported adopting the interventions. Some beneficiaries thought women were more eager to adopt the practices because women were in a better position to understand the benefits of the trainings—that the trainings were designed to solve problems in the community that women were most affected by. For example, some beneficiaries said that women are traditionally the ones spending more time at home taking care of the children, and they feel the food shortages more acutely during the times of poor harvests.

In the past, as noted, some other organizations working in the area did not include women in their training activities. One grant staffer emphasized that WOLREC tried to incorporate

elements of gender equality in all the trainings it conducted, and several respondents observed that WOLREC encouraged women to participate in activities and even to facilitate the REFLECT circles.

2. Training methods for ENRM practice adoption

Demonstration training methods reportedly led to greater levels of adoption than any other training approach. Respondents said that most community members preferred a demonstration because they had a chance to leave the classroom setting and learn by seeing firsthand how the work was done. They could participate in demonstrations, and the training seemed more effective to them. For example, one female beneficiary, after trying mulching on a small plot, saw that she was able to harvest more crops than she expected to; she then adopted this activity on a larger plot on her farm. In addition, during the demonstrations, facilitators would randomly pick people to practice, so even those who were shy had a chance to participate.

For the REFLECT circles, having facilitators from the community helped because, as one community leader put it, "people were dealing with one of their own, one who spoke with them in the same language, one who was living together with them" (CL2). Other approaches considered efficient and convincing were participatory methods, which involved facilitators instead of teachers, and group discussions. According to one focus group participant:

> *Another good training method that I liked is that whenever they were training us, it was like a discussion, not just explaining to us. They were asking us what we can manage and what we cannot manage, so on the things we wouldn't manage, they would add more ideas … and so I was seeing that this training was good, it was discussion-based. (FG_F15)*

One beneficiary was grateful that WOLREC distributed notebooks and pens during the training so participants could write things down instead of passively listening only, and remember what they learned afterward and share it with other community members. In a focus group discussion, this beneficiary said,

> *We were also writing, when they call us to learn they were giving us exercise books, so after we have written that when we get to the Circle our friends were asking us that "What have you learnt," so we were able to tell each other since we have kept what we have learnt. (FG_F16)*

Some beneficiaries initially thought adopting the new farming techniques would be difficult and time-consuming. However, after trying the techniques during demonstration activities, they saw that the new farming methods were easier than they expected at first, and more effective. For example, one focus group participant didn't think she could do mulching herself, but after seeing a demonstration, she realized that it was easy. Mulching also reduced the need to hire laborers to do the weeding and fertilize the soil. She said:

> *We women thought this practice (mulching) was hard, but after lessons, we realized it was very simple. So after adopting those practices, we women benefited a lot, and it*

> *does not require much strength, so those practices are good, and we women saw it like that too. (FG_F15)*

A beneficiary in another focus group highlighted the benefits of learning how to make homemade fertilizer, saying:

> *We have gained knowledge on how to make affordable fertilizer to apply to our field plots at a minimal cost. We no longer depend on fertilizer coupon[s], which are not even enough to be given to each one of us. (FG_F16)*

Both men and women reported finding the demonstration method most effective, and the participatory training methods efficient and convincing; however, there was a perception that **women participated more when they were in female-only training groups than they did in mixed-gender groups.** A grant staff member said that women were more engaged and open in the female-only meetings, and this sentiment was echoed by a government employee who observed a number of trainings as well.

3. Characteristics that led to practices' adoption or non-adoption

The widespread adoption of the interventions happened because **beneficiaries understood the activities' objectives from the beginning, had a sense of ownership about the activities, and saw the benefits firsthand.** The majority of beneficiaries reported that understanding the problems they were facing and discussing the solutions together as part of the REFLECT circles helped them decide to adopt the interventions. They said it was easy to adopt the interventions because the practices directly addressed the challenges they were facing. Several respondents reported seeing less cutting down of trees and charcoal burning once the community understood the importance of trees (to prevent river erosion, attract rain, and cultivate fruits, among others) and was shown alternative IGAs (such as beekeeping). One woman in a focus group did a good job of expressing the importance of understanding the activities' objectives:

> *What made us to adopt the interventions regarding natural resource management were the challenges we were facing in my area—challenges like hunger due to low crop yield production. After we had been trained, we realized that the problem was environmental degradation. After we were taught the conservation practices, we saw it would be beneficial because [for example] trees bring rainfall, which will increase our crop yield to minimize food shortage. On the other hand, the shortage of food among household would cause early marriages or prostitution, because people would do anything to find food. So we saw that all this was because of food shortages, which would be curbed by sufficient rainfall and other farming practice which conserve the environment. (FG_F12)*

Seeing the effectiveness and benefits of the interventions, including higher yields and more food, motivated participants to continue and to take ownership of the activities. Other community members who did not initially participate in grant activities also adopted the practices after seeing how their fellow community members had benefited from them.

A number of respondents reported that there were still some community members who refused to participate in the grant activities or who did not adopt the interventions. In addition to the barriers of literacy and misaligned expectations (described in detail in Section D), another reason participants gave for this was that people are set in their ways. Nonetheless, in a few cases community leaders (chiefs) were able to convince community members to participate by going to their houses and bringing them to meetings.

4. Nascent outcomes related to WOLREC's ENRM activities

Beneficiaries started noticing several outcomes that were the result of adopting the ENRM activities. **Many men and women reported that fewer trees were being cut down for charcoal burning,** both because people realized the degrading effects that has on the environment, and because they were shown alternative ways to generate income. One man gave an example in a focus group, saying:

> *I am one of the people who used to burn trees for charcoal, but as of now I have stopped to do so because of the coming of WOLREC. Even if you can go to my farm today you are going to find many big trees standing there since I know that cutting down trees leads to environmental degradation. Hence, I want to thank WOLREC for teaching us many things on how we can manage the resources and indeed other ways that can help us to develop economically without charcoal burning. (FG_M20)*

Many beneficiaries and community leaders observed an increase in the number of trees, both at the household and the community levels. One community leader said these trees now help protect houses (especially roofs) during storms. One beneficiary mentioned seeing changes in the community forests:

> *In most places like the Livilizi there was bare land, there were no trees, and the coming in of the storm (Napolo) made it worse, but as for now, when you stand here alone, you start getting afraid (there is a thick forest). So we can say WOLREC has helped us by restoring our environment. (WH_F2)*

Beneficiaries have also reported **harvesting more crops and a larger variety of crops** as a result of adopting conservation agriculture techniques such as mulching and constructing watersheds. Some beneficiaries also mentioned that these practices have helped them spend less money on hiring farm labor to help with weeding.

E. Sustainability of grant activities

Research question addressed in this section

- What are stakeholders' perceptions of the sustainability of grant activities to improve sustainable land management and address social and gender barriers?
  - What factors were driving beneficiaries to continue to adopt sustainable land management (SLM) practices?

Data collection for this study was conducted during the last month of grant activities, and respondents were asked to share their perspectives on the likelihood that the grant activities would be sustained. We examine sustainability of WOLREC's activities by answering the research questions in the text box above.

We used a sustainability matrix to identify and examine four dimensions of sustainability and the factors that support or hinder them. We assessed stakeholder commitment to SGEF and ENRM practices, resource availability, and political support. Table VII.5 summarizes our interim findings on factors that may support or hinder the longer-term sustainability of grant activities implemented by UP to improve sustainable natural resource management and address social and gender barriers.

Table VII.5. Facilitators and barriers to sustainability of UP's grant activities

Dimensions	Facilitators	Barriers
Stakeholder commitment to SGEF practices	• Broad-based acceptance of gender equality concepts and developing a sense of ownership of the activities • Observed benefits of adoption of SGEF practices • Continued local support in the form of male ambassadors trained by WOLREC to address cases of GBV	• None identified
Stakeholder commitment to ENRM practices	• People understood the importance of protecting the environment • Beneficiaries saw the benefits of ENRM practices • Demonstration effect in other communities	• None identified
Resource availability	• Materials provided by WOLREC will continue to support activities • Some beneficiaries plan to use savings from VSLs to buy the necessary materials	• in the absence of another capital injection, VSLs would probably continue but without the same level of success • Lack of materials may erode prospects of sustainability for some activities

Dimensions	Facilitators	Barriers
Political support	• Communities developed and passed bylaws to hold each other accountable to the new practices • Government officials are ready to take responsibility and provide needed support, but the amount could be limited because resources are limited.	• Community members will need constant reminders of the bylaws if they are going to adhere to them. • Communities may rely more on government officials for support to continue with the activities. • Government officials will likely need refresher trainings.

1. Stakeholder commitment to SGEF practices

As of the end of the grant activities, most respondents were confident that most SGEF activities and outcomes would be sustained. Respondents were optimistic because beneficiaries have already experienced the advantages of the activities and overcame the barriers to adopting them. Several respondents remarked that gender issues are now discussed at the community level, participants understood the gender concepts taught by WOLREC, and women will probably keep taking up leadership positions because they have been empowered by WOLREC to do so. A community leader said that during local elections he conducted in one of the villages, men specifically asked for women to be included and nominated: "I know this development will continue, I saw it when I was conducting the elections, the balance is there" (CL2). Another beneficiary agreed, saying, "Yes, it will continue. With women leading, things are progressing even better. We will no longer allow man to oppress us" (WH_F3). A second community leader concurred: "It will continue in leadership because women have seen the benefit of being a leader and even men also know that if a woman is a leader, she is representing the side of women, so the positions of women will continue" (CL1).

A factor identified as conducive to sustainability was that communities developed a sense of ownership of the activities during implementation. WOLREC trained local community members to be REFLECT circle facilitators, oversee VSLs, and advocate for women's rights. One local leader said that in the past, when organizations left the area after implementing their projects, local people stopped performing the activities, but this grant intervention was different because the communities were heavily involved in implementation and had a sense of ownership over the activities. Most beneficiaries who commented on sustainability reported they had plans to continue, and that it was helpful to have local support. For example, having local male ambassadors trained by WOLREC to address cases of GBV gave community members a needed structure, a sentiment echoed by grant staff.

2. Stakeholder commitment to ENRM practices

Most respondents believed that ENRM activities and outcomes will also be sustained even in the absence of external assistance from WOLREC or other organizations. Stakeholders reported that the most significant factors promoting the sustainability of the ENRM activities and outcomes were beneficiaries' understanding of the importance of taking care of natural resources and the environment, their adoption of the activities, and, most important, the direct benefits they experienced to their livelihoods. And idea shared by many different types of interviewees was

that, having seen the benefits of interventions, the community will fuel sustainability. One community leader noted,

> *They [communities] can continue because they can see the advantages, and it is benefiting them. It is benefiting us in this, our community because the environment is restored, and the soil is restored. People cannot leave it because there is no assistance, they will still go on even if there is no assistance from elsewhere, on their own they will continue to work. (CL1)*

A participant in a focus group gave a similar perspective.

> *The intervention[s] that promote soil conservation and sustain natural resources will continue to be practiced, because it will help to improve soil fertility; we love it. Even though WOLREC is leaving, but we will never stop. (FG_M18)*

Other beneficiaries praised the benefits of the ENRM interventions and did not think they would go back to the old way of doing things. For example, a female beneficiary noted: "[The] benefit of mulching is that you can harvest lots of maize. Even when there are little rains, the maize doesn't get dry" (FG_F8). Another female beneficiary mentioned the benefits of homemade fertilizer that allows her to harvest at times when she couldn't before. Several beneficiaries said they haven't experienced flooding since they planted trees and grass to prevent soil erosion along the river banks, and that seeing these benefits encouraged them to continue to plant trees and protect the forest by following the bylaws.

Another possible indicator for the likelihood of sustainability was mentioned by respondents who began noticing **spillovers of activities to other locations**. For example, other villages in the non-intervention area have shown interest in adopting the activities after seeing the benefits in their neighbor villages. One community leader noted: "As of now, people who weren't part of the REFLECT circle are joining us. But now we can't accept new members, and yet people are still showing interest to join" (CL4). Villages in the non-intervention areas will likely need help and guidance to successfully adopt the activities. One beneficiary thought those villages would start adopting grant activities after they saw successful examples of how local villages in the intervention area could sustain themselves without a supporting organization.

3. Resource availability

Beneficiaries reported that they will continue with alternative IGAs like beekeeping and VSLs. However, as noted, one beneficiary thought that in the absence of another capital injection, VSLs would probably continue but without the same level of success (a sentiment echoed by WOLREC in its final report).

On the other hand, a smaller group of respondents believed the continued presence of an implementing organization was needed to sustain the activities, and that continuing with activities that require supplies would be particularly tough. One community leader summed up this perspective in this way:

> *People are very interested, but sometimes resources are not enough. […] Sometimes it can happen that one has made a shade, has the seeds, the trees are there, they are ready to work, but they do not have tubes or wheelbarrow, or shovel, necessary resources to use. People have the capability and are ready to do it [but lack of resources can be discouraging]. (CL2)*

Another example of this uncertainty was given by respondents who said adult literacy schools may not continue if they don't have basic supplies such as chalk, blackboards, and notebooks. One grant staff member did report that in one of the villages, local members contributed funds and bought a blackboard themselves for their literacy classes. Several beneficiaries reported that they plan to continue with VSLs and the beekeeping activities, but might need money to buy new beehives and supplies to hang and maintain them. Others pointed out that money saved from VSLs could be used to invest in those materials.

4. Political support

Grant staff members noted that communities developed and passed bylaws to hold each other accountable to the new practices, and most participants said they were committed to continuing these activities after the grant ends. Two government officials who were interviewed also expressed their opinion that the local communities will continue with the grant activities, but suggested this will likely be at a slower pace, and that community members will need constant reminders of the bylaws if they are going to adhere to them. One government official predicted that communities could rely more on government officials for support to continue with the activities (for example, they will need forestry department officials to provide knowledge and tree-planting supplies). This person also noted that government officials are ready to take responsibility and provide needed support, but the amount could be limited because resources are limited. One grant staff member remarked that government officials will probably need refresher trainings.

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VIII. COMPARATIVE CASE ANALYSIS: FINDINGS AND LESSONS LEARNED

Summary of key findings

Implementation (RQ 1 and 2)

- All five case study grants were effectively established in their implementation areas through community buy-in and in partnership with government agencies and local leaders.
- All five grants successfully used REFLECT circles to identify priorities, action steps and/or for implementation.
- All five grants used participatory, hands-on training methods and demonstration, which were well appreciated by community members.
- Overall, the implementation of the grant activities was successful.
- Grantees were responsive to donor and beneficiary needs, adapting implementation plans to improve outcomes. There were a few changes that were due to grantees' inability to implement as planned.

Findings on ENRM activities (RQ 3)

- Widespread adoption of conservation agriculture and land management practices by those who participated in the activities.
- There was clear engagement of women in ENRM activities.
- Visible benefits of practices motivated adoption.
- Participants like the participatory, hands-on training and use of demonstrations.

Findings on SGEF activities (RQ 4 and 5)

- VSLs were popular and successful.
- REFLECT Circles and VSLs were effective structures for change.
- Increases in joint household decision-making, more equitable division of labor, more leadership opportunities for women and more participation for female household heads in community decision-making.
- Resistance to changes in gender roles remains.

Sustainability (RQ 6)

- Stakeholders express confidence that the grant activities they participated in would be sustained.
- Benefits experienced from adoption is a facilitator of sustainability.
- Collaboration with local government agencies, local leaders, and trained farmers will support sustainability.
- Adoption of activities by participants as well as some non-participants provide support for sustainability
- Lack of funding and materials was most commonly reported risk.

A comparative case analysis allows us to draw broad conclusions about which types of activities and training approaches are most effective. For this evaluation, we wanted to see what happens in the best-case scenario—that is, what types of activities can work or don't work, and why. Therefore, for the five case studies included in this evaluation, we chose to collect data in

villages where activities were well implemented, villagers were engaged, and there were strong partnerships. The cross-case analysis in this chapter compares outcomes across the five case studies and illustrates common themes that emerged, thus revealing both effective and deficient activity implementation approaches.

We compare the case studies by covering the four topics we have looked at in depth in each: (1) implementation—especially fidelity, and the facilitators and barriers to implementation; (2) ENRM activities, focusing on outputs and outcomes from land management practices interventions; (3) SGEF activities, focusing on behavioral and attitudinal changes related to the role of women in the community; and (4) sustainability through stakeholder perceptions of whether grant activity outcomes will be maintained or expanded after the grants end. In addition, we present findings on whether grants focused more on ENRM or SGEF activities were more or less effective than grants that targeted both types of activities. We end the chapter with a few conclusions from the cross-case assessment.

The five grants we looked at in the case studies are diverse examples of the 11 grants MCA-Malawi funded. Two of the five (UP[21] and FISD) initially emphasized ENRM activities; two others (CCJP and WOLREC) initially focused on SGEF activities; and the last (TSP) focused on both from the beginning. Whatever the initial focus, the activities the five grantees implemented were chosen from a relatively small set, and there was much overlap across grants (Table VII.1). Despite the initial differences in focus, all five case studies included ENRM activities focused on soil conservation, land management, tree planting, and forest management. For SGEF activities, all five grants used REFLECT circles, provided trainings to sensitize community members on gender equality, and got community members started in and/or trained them on managing VSLs and pursuing adult literacy. The common elements of the grant interventions and common underlying program logic allow us to look across all five grants and develop cross-cutting conclusions.

Table VIII.1. Activities implemented by grants

	TSP	UP	FISD	CCJP	WOLREC
Community mobilization and participation in the ENRM decision making	X	X	X	X	X
Provide trainings on SLM practices, including planting trees, vetiver grass, and elephant grass, as well as other SLM practices	X	X	X	X	X
ENRM Action Plans and Bylaws	X	X		X	X
Beekeeping	X	X		X	X
Sensitize community members on gender equality	X	X	X	X	X
Women empowerment through leadership training	X	X	X	X	X
Provide adult literacy classes and trainings on business management	X	X	X	X	X
Establish REFLECT circles	X	X	X	X	X
Establish VSL groups	X	X	X	X	X

SLM = sustainable land management; VSL = village savings and loans.

[21] Seventy percent of UP's budget was for ENRM activities and 30 percent was for SGEF activities.

A. Implementation analysis (RQs 1 and 2)

Like the activities themselves and their underlying program logic, the implementation approaches used by the grants had many elements in common:

- All five grants were effectively implemented through community buy-in and in partnership with government agencies and local leaders, in accordance with MCA-Malawi guidance.
- Each grant used REFLECT circles to identify priorities and action steps and/or to implement its activities.
- The grantees all used participatory, hands-on methods for most trainings.

Overall, the **stakeholders involved viewed the implementation of the grant activities as successful.** The beneficiaries appreciated the implementation approaches that were used, commenting in particular on the usefulness of the hands-on, participatory methods and demonstrations. Some stakeholders even attributed the success of the activities to the training methods.

In addition, **most grantees were reported to have been responsive to beneficiary needs as well as MCA-Malawi grant facility requirements.** They made changes small and large to their planned activities throughout implementation, which helped improve outcomes. Major changes included adding SGEF-focused activities (FISD, UP, and TSP) or ENRM-focused activities (WOLREC, CCJP, and TSP), either in response to MCA-Malawi's suggestions or participants' requests. Smaller changes such as expanding VSL activities due to their popularity (FISD, WOLREC and TSP), planting more trees than planned (CCJP), and changing or cancelling livestock-related activities to ensure the animals' health and protect natural resource management activities from being eaten (FISD). Smaller changes also reflected the flexibility of both the implementers and MCA-Malawi in responding to beneficiary and implementation needs.

However, there were **a few changes made to implementation plans because grantees found they couldn't implement everything the way they expected to**. Two substantial changes were FISD's decision to concentrate all 60 hectares of solar-powered irrigation in one village instead of creating irrigation schemes in three villages (as it planned to) because only one of the locations had a sufficient water source for the scheme. A second was TSP's inability to implement activities in all the GVHs it expected to because there was not enough time and money to cover the entire geographic expanse. Less substantial changes included WOLREC dropping cash injections into VSLs (unallowable with MCC money) and UP switching an activity from sustainable charcoal production to low cost biogas digester systems to better align it with the goals of the grants. Overall, though, the grantees were able to implement as planned, and some of the changes made the activities better.

Interview and focus group **participants made it clear that for SLM trainings, they appreciated participatory, hands-on techniques and demonstrations of intervention practices,** both of which were done in all five cases. A clear advantage of using demonstration as a training technique was that it made the benefits of the practices visible to participants and

nonparticipants alike, facilitating early adoption by participants and helping practices spread throughout the communities. Demonstration and hands-on training also reportedly helped participants fully understand the techniques, such as box ridges or stove-making, and aided adoption. These two methods also eased the fears of community members who thought the proposed interventions would be difficult, because the demonstrations showed them the practices would be easier to implement than they expected.

The government's policy of using the lead farmer model has benefits, such as the presence of someone in the community to check in with if a question or issue with a new practice emerges; however, in one case study, CCJP, **some respondents said they preferred to be trained directly by CCJP staff or government officials and not by people in the community**. This allowed them to ask all their questions and get direct assistance, and reportedly it helped them understand the new practices better. This finding is consistent with literature in other fields, such as teacher training, about the risk of "watering down" training through a train-the-trainer approach. Another grant, FISD, also revealed that **implementation did not always follow the lead farmer model**. In the UP grant, data uncovered some resentment for the lead farmer model because participants perceived that lead farmers were paid[22], and other participants were not; this depressed participation numbers. Nonetheless, this is a prevalent training method in Malawi because it is part of the Ministry of Agriculture's training protocol.

There were **no reported differences for male and female farmers associated with different training methods**, although for some trainings, men and women were divided into same-sex groups. In the WOLREC case study, some respondents reported that women in the female-only training groups were more engaged, but there were no reported effects on implementation or adoption based on whether training was given to female groups or groups of both men and women. On the other hand, respondents in three case studies reported that men preferred single-sex literacy classes, because they didn't like to reveal their lack of reading ability in front of women.

Next we look at the factors that supported or hindered implementation. For each case study, we systematically assessed implementation by using an effectiveness framework to identify and classify the factors that supported and hindered the grant's effectiveness in implementing activities. We looked across the five case studies and found the factors that affected the grants most often, whether positively or negatively. We classified these factors as characteristics of the intervention design, the implementation process, or the community, or as environmental factors. Table VIII.2 summarizes our findings.

[22] UP staff confirm that in fact, lead farmers were not paid. The perception that they were could have arisen because they were given inputs for their demonstration plots. In addition, some of the lead farmers were also REFLECT Circle facilitators, who received honorariums.

Table VIII.2. Common implementation factors across cases

Category	Facilitators	Barriers
Intervention design characteristics	• Economic incentives aligned with environmental benefits • Buy-in from local authorities and leaders before implementation	• Short project timeline • Cash-flow and delays caused by terms of cost-reimbursement contract
Implementation process characteristics	• Flexibility to adjust to meet donor's and/or beneficiaries' needs	• Lowered motivation to participate because of "handout syndrome" • Inadequate laws and bylaws • Donor restrictions and timing of inputs
Environmental factors and community characteristics	• Change in exchange rates due to the devaluation of the kwacha compared to the U.S. dollar between the time of budgeting and the disbursement	• Drought • Heavy rains/floods • Fall armyworm infestation • Lack of market linkages

1. Intervention design characteristics

We found two characteristics of the intervention design that facilitated implementation in all five case studies. The first is that **activities gave participants economic incentives that were aligned with environmental benefits**. That is, participants had economic incentives to adopt environmentally sustainable land management practices, making these practices more likely to be adopted and to succeed. Participants talked about the economic benefits of soil conservation practices such as higher yields, and the opportunities for revenue from sustainable income-generating activities. These tangible benefits provided positive incentives for implementation success.

The second universal design facilitator of implementation was that **all grantees implemented their activities using processes to build community buy-in**, including buy-in from community members, local leaders, and government agencies serving the local areas. These processes, although conducted using different approaches, ensured that local communities understood the goals of the grant activities and were interested in supporting them, thus increasing the possibility that activities would succeed.

Both of these facilitators were elements of the implementation designs that were encouraged by MCA-Malawi and MCC during the grant proposal process. MCA-Malawi staff commented that at first the NGOs did not fully understand the need to work with district officials, but MCA-Malawi guided the NGOs and saw changes by the second year of implementation. In the end, these elements were identified by community members, local leaders, government officials, and implementers as ones that facilitated success in all five case studies, reinforcing their utility. Individual grants reported that other implementation facilitators unique to their circumstances or activities were also valuable, but across the board, these two were seen as important and positive.

The short implementation timeline was a key barrier in all five case studies. MCA-Malawi compacts are five years long. By the time this compact's grants were proposed and awarded and the activities began, there were only three years left for implementation. As many implementers and community members noted, this was not enough time to initiate, implement, and ensure the

sustainability of a slate of activities. Natural resource management interventions are often based on a seasonal calendar, so they cannot proceed any faster than the seasons allow, and then another season is needed to make iterative improvements based on results. Those who are not early adopters do not have much time to observe changes in their communities and join in on activities before they close out, further limiting the impact interventions can have.

A second design barrier in four of the five cases was the cost-reimbursement contract that was used. This contract type requires implementers to front the cash needed for the activities and be reimbursed. Many implementers did not have that cash, and this caused activity delays for four of the five grantees. The situation was made worse for some grantees as the contract type was not clear to them at the start of implementation, which meant they could not plan in advance to ensure they had the cash flow to implement on schedule. Given that MCAs work in developing countries, cash flow can be a problem for many NGOs—especially small and/or local ones—and other implementers.

Both these barriers were ones that MCA-Malawi staff recognized and identified in interviews. NGOs have been forced to work around such barriers, but reducing or eliminating them would help their activities succeed.

2. Implementation process characteristics

The main implementation process characteristic that facilitated successful implementation was the **flexibility exhibited by both grantees and by MCA-Malawi throughout implementation to allow adjustments to meet beneficiary needs and improve implementation and outcomes** of the activities. A prime example of this flexibility on MCA-Malawi's part was the additional funding granted to TSP to continue its activities in the third year of implementation. This acknowledged the tight budget TSP had for the expansive geographic region it was to cover. Making this change to its budget made it possible for TSP to continue work it had already begun, increasing chances of sustainability and increasing the reach of its work. A second example of flexibility was the change several grantees made in their implementation plans to include more REFLECT circles and VSLs, which both proved more popular within their target communities than the grantees initially expected them to be. Making these types of changes based on community members' needs improved the success of activities in all five grants.

The grant implementers also faced a number of barriers. The most common, mentioned in four of the five cases, was **resistance from some potential beneficiaries in the target communities because of unrealized expectations for direct handouts**. Some have described this phenomenon as "handout syndrome," and it can emerge in areas where the majority of the people are resource-poor and come to expect support from projects after successive experiences with distribution of resources or material incentives for work, participation, or support (McCrindle 2002). The areas where these grants were implemented fit this description, and because these grants were not designed to offer immediate benefits, most grantees found at least some initial resistance to their activities. FISD, for example, had offered material incentives in some of the same implementation areas. When the activities for this grant were implemented, potential participants were reluctant to undertake similar work without being paid as other community

members had been in the past. The types of projects that can lead to handout syndrome have been said to suppress motivation and work against the long-run sustainability of projects (McCrindle 2002). The grants likely increased the possibility of sustainability by not offering immediate material benefits in exchange for participation, but most did face a barrier in implementation because aid agencies had used the handout methods in those areas before.

An additional barrier to implementation that emerged in three of the five cases was the **lack of overarching legal guidelines, bylaws, or laws to support or maintain desired activities**. An example of this barrier was reported for the CCJP activities: participants encountered conflicting rules in different local government departments on planting along river banks. For the FISD activities, there was a lack of a legal framework for landowners and water users of the irrigation scheme, leading to land conflicts and water disputes without a clear legal framework to resolve them. TSP found a barrier to implementation because some communities weren't able to create binding bylaws to enforce forest use guidelines. All three cases bring to light the need to pay attention to the legal frameworks, rules, laws, and bylaws needed to support positive change.

A third barrier identified by three of the five grantees was the **timing of inputs and responsiveness of MCA-Malawi**. During implementation, two grantees noted that their activities were delayed by the late provision of materials from MCA-Malawi. A third grantee noted that an effective use of grant funds—providing VSLs with capital injections to increase the size of loans women could take to start or grow their businesses—was disallowed by MCA-Malawi and MCC. These barriers imposed by the donor and MCA-Malawi suggest areas for consideration for future grants.

3. Community characteristics and environmental factors

Context also makes a difference in how well interventions can be implemented. The main environmental factor exogenous to the interventions that facilitated the implementation of grant activities for three out of five grants was **a change in the exchange rates between the time proposal budgets were created and when budgets were disbursed**. Grant budgets were created in US dollars based on expenditures planned in Malawian kwacha and in dollars. When the kwacha depreciated, the budgeted amount of US dollars returned more kwacha than originally budgeted.[23] For three of the five grants, this resulted in a windfall in kwacha that facilitated implementation success. For expenditures that were planned in dollars, the new exchange rates had no effect on the budgets. Changes in exchange rates are something that cannot be planned on. In this case, it facilitated implementation. In other cases when this happens, it could be a hindrance by reducing the amount of local currency received based on a US dollar budget.

There were a number of environmental barriers to implementation that were identified. The first was **infestations by fall armyworms** (FAW), which in 2017 were estimated to have infected

[23] Between June 2015, when the grantees submitted their grant budget, and February 2016, Malawian kwacha depreciated by 69 percent (from 441.05 to 743.69 kwacha per USD). Since then the currency value has experienced relatively small fluctuations and remained stable around 725 kwacha per USD (Reserve Bank of Malawi 2016, 2019).

half of Malawi's maize (Reuters, March 23, 2018) and posed a significant threat to food security in the 2016/2017 consumption year (UN-FAO 2017). Stakeholders for four of the five grants reported that FAWs led to low maize harvests and famine, and discouraged some farmers from joining activities. In addition, **drought and dry spells** affected four of the five grant areas. Drought coupled with the FAW further contributed to low harvests and food shortages. Droughts in the first and second years of implementation also contributed to low survival rates of tree seedlings and planted trees, and dry spells delayed the planting of vetiver grass and affected its survival. Further environmental shocks that hindered the implementation of grant activities were **heavy rains and floods**, which washed away some tree seedlings along river banks in two of the grantees' areas.

A final community characteristic that negatively affected implementation in two cases (UP and FISD) was **the lack of market linkages**. This meant that there were no viable markets for agro-produce. There was also no indication that the implementers for these two grants made an effort to facilitate market linkages during implementation.

B. ENRM activities (RQ 3)

Now we will use the cross-case analysis process to look at the lessons learned from the adoption—or non-adoption—of ENRM activities, and nascent outcomes. We will examine what practices were adopted and why, including gender and intervention characteristics. We will also share emerging outcomes. Considering key findings from across all five case studies, we have identified lessons as of the end of the implementation period that can inform similar future interventions.

Table VIII.3. Common themes on adoption and early outcomes of ENRM practices

Research Topic	Main themes
Adoption of SLM practices	• Widespread adoption of CA and land management practices by those who participated in the activities. Most readily adopted land management practice was tree planting. • Practices introduced were generally easy to adopt
Differences in adoption by gender	• Women were at the forefront of activities, more engaged, played central roles and/or adopted at higher rates than men
Characteristics of practices that led to adoption	• Visible benefits of a practice – both environmental and economic—was a main characteristic of interventions that led to adoption • Generally if a practice was effective, it was adopted, regardless of the labor involved
Emerging outcomes	• Higher crop yields were reported from new agricultural practices • Environmental benefits were reported from CA and SLM practices

1. Soil and Land Management practice adoption

Data from the well-executed implementation areas nominated by the grantees in all five grant case studies indicate that **there was widespread adoption of CA and land management**

practices by those who participated in the activities.[24] There is also evidence in at least two of the grant cases (TSP and WOLREC) of spillover effects to non-participants who began adopting several practices after seeing the benefits experienced by participants, especially increased yields. The **most readily adopted land management practice was reported to be tree planting**, which was reported in all five of the grant cases. Other CA practices that were adopted differed by case depending on what interventions were introduced, but commonly included making manure fertilizer, constructing box ridges, mulching, and the like. The data in all five grants suggest that **the practices introduced were generally easy to adopt**, although some required more manual labor.

2. Differences in adoption by gender

There was evidence that **women were at the forefront of the activities, more engaged, played central roles and/or adopted at higher rates than men** in all five grants. However, both men and women were involved in and adopted the interventions, even if there were lower numbers of men in many cases. Countering this, in one grant, FISD, there was not overwhelming evidence that women were more engaged than men. And in the UP case study, some said adoption by men and women was equal. However, the clear engagement of women in these activities and their adoption of practices might find its roots in the orientation of MCA-Malawi that female farmers be empowered and included in all activities.

3. Characteristics of practices that led to adoption

Farmers in all five grant areas reported CA and land management practices were adopted readily because participants saw the benefits of the practices fairly quickly. They reported benefits including increased farm productivity as well as reduced erosion into streams and rivers. Stakeholders also reported that participants had a strong understanding of and buy-in into the environmental land management objectives of the grants, which also facilitated the adoption of CA and land management practices. Nothing in the data collected suggested that any of the CA and land management practices introduced was routinely abandoned. In four of the five case studies, data suggest that if a practice was effective, it was adopted, regardless of the labor involved. In the fifth case study—UP, there were reports that the more labor-intensive practices, such as ridge realignment, were adopted less often. CCJP and TSP respondents reported that the grant staff encouraged community members to work together on labor intensive practices, and data from those grants suggest this helped make implementation of the more labor intensive practices easier and more likely to be adopted.

4. Emerging outcomes

There were three outcomes that had begun to emerge by the end of the grant period. In all five case studies, beneficiaries reported that using the CA and SLM practices promoted by the grantees resulted in (1) increased yields and (2) environmental impacts such as reduced soil erosion and higher water retention in the soil. For example, participants who implemented activities promoted by UP and TSP reported seeing higher yields as a result of box ridge

[24] On average, almost half of all households in the selected villages were beneficiaries of the grants, while the range of beneficiaries per village was between about one-third and two-thirds of all households.

construction and the production and use of manure fertilizer on their fields. Some participants who were able to market the crops for which they experienced increased yields also reported (3) increased income. These nascent outcomes suggest the interventions can be successful in bringing about the change identified in the grantees' logic models.

C. SGEF activities (RQ 4)

We now turn to lessons learned from the cross-case analysis process regarding adoption of SGEF activities and outcomes regarding gender roles and decision making. We will examine what practices were adopted and why, and changes reported in joint household decision making, division of labor, leadership opportunities for women and the involvement of female household heads in community decision–making. As of the end of the compact, key findings from across all five case studies provide lessons that can inform similar future interventions.

Table VIII.4. Common themes on adoption and outcomes for SGEF activities

Research Topic	Main themes
SGEF practice adoption and outputs	• VSLs were particularly popular and successful • REFLECT circles and VSLs were helpful structures - helping sensitize men and giving voice to women in both communities and households • SGEF activities led to greater awareness of women's economic and social rights among community members
Outcomes	
Joint household decision making regarding land and natural resource management and household finances	• Increases in the number of women participating in household decisions • REFLECT circles helped sensitize men to the value and importance of women's voices in decision making • Some resistance to changes remain rooted in part in cultural tradition
Division of labor on the farm and in homes	• Division of labor on the farm and in the household became more equitable to some degree in families of participants
Leadership opportunities for women	• Widespread increase in community leadership opportunities for women • Perceptions of women as leaders were very positive • Some resistance to female leadership remains
Participation in community decision making by female heads of household	• Increase in female household heads in community decision making

1. SGEF practice adoption and outputs

These five case studies showed what can be achieved with SGEF activities, and overall, implementers found broad-based success. Adoption was pervasive, and **VSLs were particularly popular and successful activities**. The majority of VSL members were women who did not have previous access to savings or credit. Widespread adoption gave these women access to these two financial services that were very much in demand. SGEF grant activities such as REFLECT circles and VSLs were also noted as successful methods for communities to identify gender-based issues and implement solutions. One SGEF training method grants used was the promotion of men and women participating in grant activities together. Participants in several case studies reported that this led to increased communication between men and women and a

new respect for women's capabilities by both men and women. **VSLs and REFLECT circles were also reported by participants in at least four of the case studies as helpful in sensitizing men** through dialogue and mixed-sex trainings on financial skills such as budgeting and thereby gave voice to women in both communities and households. Grant activity participants interviewed in all five cases commonly mentioned that SGEF activities had **shifted perceptions in the community regarding gender roles**, including adoption of gender equality concepts. SGEF activities were also reported to be responsible for allowing women more freedom to participate in community activities and other project activities, some of which, such as VSLs and other alternative income generating activities, allowed women to become more self-reliant and able to contribute more financially to households.

2. SGEF outcomes

The reported shift in perceptions of gender roles that resulted from SGEF activities resulted in greater joint household decision making, more egalitarian division of labor, more leadership opportunities for women, and greater participation in community decision-making by female heads of households. While there is variation in success between different outcomes and different cases, which will be described below, these changes are progress indicators. We don't know how widespread these changes are, and recognize that three years is not a long time to create lasting change in gender equity. MCC staff members also questioned whether the SGEF interventions were adequate for reaching the gender equity objectives set out. However, as of the end of the compact, the following outcomes were evident.

Looking specifically at changes in joint household decision making, **respondents in all five cases reported increases in the number of women participating in household decisions**. VSLs and REFLECT circles were credited with helping to sensitize men to the value and importance of women's voices in decision-making through dialogue. **Regarding household finances, participants in four of the five case studies reported increases in joint decision making**. FISD and CCJP participants reported that VSLs and grant activity trainings supported joint household budgeting and increased communication between men and women. VSLs allowed women—widely reported to be more active in VSLs than men[25]—more economic power, offering a way for them to make money by doing business to assist their families. With increased access to money and the ability to contribute to the family, women could also share in the financial decision-making with their husbands, which has not always been the case. Participants in three case studies also reported **positive changes in joint decision-making regarding land and natural resource management**. In the FISD case study, the effects of SGEF activities extended to women having a voice in sustainable land management planning at the community level as well. Although there were reports of positive changes in decision making in the majority of the case studies, how generalized these changes were varied. The WOLREC case stands out as the most positive. In addition, in at least three of the case studies, participants reported that **there was still resistance to change**. In the CCJP case study, participants reported that this resistance might have been rooted in religious convictions for some.

[25] Aggregated data on VSL participation by gender across all 11 grants shows that almost 80 percent of all participants in grant-supported VSLs were women (Malawi compact Indicator Tracking Table, MCC 2019).

Respondents in four of the five cases reported the **division of labor on the farm and in the household became more equitable to some degree in families where the man, woman or both participated in grant activities.** For the fifth case study—FISD—there were some positive results from sensitizing men on this issue, but implemented activities were not sufficiently aligned with improving division of labor.

Grant activity participants from all five case studies reported that intervention activities resulted in **more community leadership opportunities and positions for women during the grant implementation period**. VSLs also led to women having greater leadership opportunities within their households. In four of the case studies, participants noted that **perceptions of women as leaders were very positive**, and many reported women were more capable leaders than men, running groups better than their male counterparts did and being more transparent, trustworthy, and accountable. However, in two cases, **limitations on women in leadership roles were also evident**. In the CCJP case, the type of leadership positions women attained were not as high in status or power as the positions men held, and in the UP case, some women leaders were reluctant when called into the limelight. While there were widespread reports of acceptance and support for larger leadership roles for women from both men and women, resistance to changes in gender roles was also reported, especially to female leadership.

We also explored changes in the involvement of female heads of households in community decision-making. We found in the case studies of UP, WOLREC, and CCJP that most households were headed by women, partly because a number of women were divorced or widowed. However, a main explanation for this in all three cases was the migration of men to South Africa in search of work. In some cases, such as UP and CCJP, some households were also counted as female-headed because of polygamy in the Muslim communities they worked in. In all three case studies, there were reports of **more female household heads in community decision making.** This was a result of a more general trend of there being more women involved in community decision making rather than a result of a specific focus on increasing the participation of female household heads. The same was true for the TSP case study, where again there was not much distinction between female household heads and other women. In the FISD case study, beneficiaries reported few female-headed households, so did not differentiate between benefits to them as opposed to women in general. Results from the WOLREC case study also revealed that female-headed households reported having more economic opportunities after they participated in grant activities.

D. Effectiveness of grants that focused more on ENRM, SGEF, or both types of activities (RQ 5)

According to interviews with MCC staff, the ENRM project was originally conceived of as a traditional environmental and natural resource management project to reduce sedimentation into the Shire River. MCC has a mandate to integrate gender and social inclusion in the projects it finances, but according to MCC staff, when the Malawi Compact was being developed, the gender and social inclusion process was just being established. Therefore, after the ENRM project was conceived of, MCC elaborated on and strengthened its social and gender component by adding the SGEF co-focus. This was aided by an environmental, gender, and social baseline

assessment conducted by LTS International to inform project design. This provided input for the design of the ENRM and SGEF activities, identified gender-related drivers of land use change, provided recommendations for the SGEF intervention areas, and identified gender-based inequalities that affected the access, control, and use of natural resources in the Upper and Middle Shire River Basin. None of the grantees selected for our five case studies had conducted a project integrating gender and natural resource interventions before; in fact, an MCC staff member reported that this had never been done in Malawi. Two of the case study grantees initially proposed to focus solely or mainly on environmental and natural resource management (FISD and UP), two proposed to focus solely or mainly on gender equity (WOLREC and CCJP), and one proposed to integrate both (TSP).

In addressing the effectiveness of each type of grant, we first note that the ENRM project had more than one aim related to behavior change. As one MCC staff member noted, **one goal was to change practices related to the use of natural resources, and the other was to change practices to promote gender equality and advance the role of women in the communities. All five case studies found that neither goal was enough on its own, and by the end of the project, all five had integrated both aspects into their grant interventions.** WOLREC, which had a great deal of experience with gender inclusion, found it important to add ENRM interventions to its programming, mainly because women deal with natural resources directly. However, WOLREC did not have staff with natural resources experience. CCJP made the same adjustment in adding ENRM interventions to its SGEF-focused grant. FISD, on the other hand, added SGEF activities to its grant, adding interventions that provided alternative channels for revenue generation that reduced the communities' environmental footprint. FISD found SGEF activities were positive facilitators for ENRM adoption and that they were popular with men as well. FISD did not have a lot of experience with SGEF activities, but found their integration very successful for their overall goals. Finally, UP and TSP included both types of interventions from the beginning, although UP's main focus was ENRM, with 70 percent of their budget focused on ENRM activities. TSP found that activities were more popular with women, but men participated as well, and the joint focus was very successful for getting men and women to work together.

According to MCC staff, the integration was a success. Said one staff member: "Despite some challenges and some limitations, we were able to integrate gender and social components into traditional, environmental natural resource management projects," (MCC-F5) although the same person said that a lot more could have been done better if the project had been integrated from the design phase, especially for the three grantees that initially focused mainly on ENRM (FISD) or SGEF (WOLREC and CCJP). Based on data from participants, implementers and community leaders, adding SGEF activities to ENRM activities benefited the ENRM objectives through getting women involved and using SGEF activities as facilitators of promoted ENRM practices. This was a new, unique approach that proved to be effective, even though many implementers were technically ill-prepared as they first developed their integrated interventions. It is not as clear that the ENRM activities helped as much with grantees reaching gender equity goals. That said, some ways ENRM activities helped with SGEF objectives included giving women options for getting more involved and integrated into community activities, such as having women ambassadors in the TSP case; providing women with alternative income, for example, through beekeeping, which was possible because of better forest management; and helping men and

women see women's value in the ENRM realm, for example through CCJP's lobbying of local leaders to increase women's involvement in agricultural decision making.

E. Perceptions of sustainability (RQ 6)

Stakeholders expressed confidence about the sustainability of the grant activities they participated in. In one case study—CCJP—stakeholders expressed optimism, but also expressed uncertainty, as well as an expectation that a new project would replace the grant activities.

The factors that can contribute to sustainability differ from one grant to another, but **the facilitator reported by stakeholders in all five cases is that activities have been widely adopted by participants, who have already experienced their direct benefits.** These include higher yields from soil management practices and increased savings and loan opportunities from VSLs. Stakeholders in four case studies talked about a second facilitator: close collaboration with and support from agriculture and forestry agents, local leaders, and local government. Three of these case studies revealed the importance of trained leaders and ambassadors living in the communities, who can encourage and guide community members in the absence of project staff, and trained farmers who can support other farmers. The same three case studies—TSP, FISD and UP—revealed that action plans, bylaws, and laws are structures that would facilitate the sustainability of activities such as forest usage and female representation in leadership positions. Other infrastructure that could reportedly support sustainability included village committees, solvent VSLs, functional REFLECT circles, and WUAs. Finally, stakeholders in four of the case studies mentioned the sense of ownership participants feel as a sustaining force, along with an understanding on the part of beneficiaries of the importance of taking care of natural resources and the environment. Other facilitators could include the numerous projects supporting conservation agriculture practices in the grant areas, and the unique aspect of including women in the ENRM grant activities.

The most commonly reported barrier to sustainability—reported in all five cases—was lack of funding and materials to continue activities. The supplies mentioned that will be lacking included materials to plant trees, resources for beekeeping, and resources for adult literacy classes. Some stakeholders also feared that the lack of support for future monitoring and technical assistance would put activities' sustainability at risk. Barriers noted in four case studies include the need for refresher trainings for the community members and government officials supporting communities, and for continuing encouragement and reminders to citizens not to cut down trees. The short timeline of the grants was also identified as a barrier to sustainability; for example, for beneficiaries who were unable to get adequate training. Other barriers included the lack of formalized legal frameworks, bylaws, and plans where they don't exist, and the need for enforcement of bylaws that have been put in place. We also found it extremely difficult to observe activity meetings in the communities we studied because the meetings were not regularly scheduled and were often cancelled. This could be a proxy for the sustainability of these activities not being well planned for.

F. Conclusions

There is another analysis round under the current evaluation. Because the findings from the five grant case studies will continue to evolve, the implications for policy and practice will not be fully known until the evaluation is finished. It would be premature to draw broad policy implications based on the interim findings for two reasons. First, some of the key outcomes related to ENRM activities, such as farm yields and household income, are likely to manifest more clearly in the longer term. Second, the next round of analysis should also clarify whether the activities that were implemented and their emerging outcomes will be sustained in the longer term. There are four conclusions at the moment, based on the interim findings presented in this report.

- **Aligning the participants' private economic incentives with environmental public goods and getting local buy-in are critical for successfully implementing and promoting adoption of ENRM activities in rural areas**. The activities implemented by all five grantees relied on ensuring the participants experience tangible economic incentives from adopting environmentally sustainable land management practices. In addition, each grantee relied on buy-in from local leaders, government agencies, and community members to successfully implement its planned activities. It would be important to incorporate these key implementation facilitators in the design phase of any future grant-based program.
- **In developing grants that promote sustainable land management, it's useful to consider the seasonal nature of agricultural production**. The ENRM and SGEF grants funded by MCA-Malawi were implemented over a three-year period (from July 2015 through June 2018). Although a three-year implementation period might be considered long for donor-funded grants, over 90 percent of agricultural production in much of rural Malawi is based on a single crop each year. Three years only affords a maximum of three crop cycles to demonstrate a variety of sustainable land management practices across a population that contains a mix of enthusiasts and skeptics when it comes to adoption of new practices. Keeping the crop cycle in mind is important so that direct benefits of sustainable land management practices can be demonstrated early on. This may necessitate more intensive staffing to implement grant activities in the first year of implementation. In addition, ENRM activities can require up to 5 or 6 years to realize their full impact, and some community members need 2 or so years to be convinced to adopt practices such as forest management or growing fruit trees around their homesteads. In a three year project, this does not allow much time to ensure practices will be sustained.
- **It is important for policymakers and practitioners to recognize that intentional programming of activities designed to affect gender equity was critical for the emerging changes found in these case studies**. It is generally well recognized in the literature that empowering women by changing intra-household decision making processes, overcoming traditional division of labor between the genders, and giving women leadership opportunities usually follows a complex and lengthy path (Goldman and Little 2015, Mahmud, Shah, and Becker 2012). It still appears that all five grantees have made some difference in increasing women's participation in intra-household decisions on resource allocation, bringing about more equitable divisions of labor in both household and farm labor, and creating

opportunities for women to take leadership roles in their communities. Although some resistance to change persists, and we will have to see how many of the improvements are sustained in the longer term, we can note that if policymakers are interested in making a difference in this outcome, it is important to design interventions specifically (but not necessarily exclusively) to improve gender equity.

- **The success of ENRM interventions was augmented by the inclusion of SGEF activities in all five case studies.** While working toward gender equity is a valuable goal in and of itself, these cases reinforce the literature showing that inclusion of SGEF activities can also be a means to achieving better results for ENRM activities. Both women and men are intimately involved in using, caring for, and benefiting from natural resources. Ensuring that both men and women are integrated meaningfully into all aspects of ENRM intervention planning and implementation is essential for achieving success in those activities and for the improvement of gender equity in the communities involved.

IX. CASE STUDY EVALUATION: NEXT STEPS

We will follow this interim study of the Malawi Compact's ENRM project with a final study that we will conduct from early 2020 through mid-2021. The ENRM project was designed to increase the reliability and efficiency of electricity by improving land management practices and increasing economic and social rights and decision making power for women and vulnerable groups. In the final study, we will again assess the ability of the five selected grants to achieve these two outcomes in the Shire River Basin.[26]

In this interim study, we focused on implementation fidelity, barriers, and facilitators; outputs such as trees planted, farmers trained on SLM practices, and REFLECT circles and VSLs established; and emerging outcomes, including adoption of land management practices, changes in community and household gender roles, and increases in crop yields and alternative income-generating opportunities.

The final study will focus more on outcomes, sustainability, and nascent longer-term goals. The three main outcomes for the grants are: (1) reduced sediment runoff and weed growth, achieved through switching to more sustainable land use practices; (2) higher farming yields and revenue; and (3) less gender inequality in access to resources. The final study will allow us to determine whether the activities have been able to produce these outcomes, and if so, how. This study will also inform our understanding of the sustainability of the activities and outcomes and the factors that support or hinder sustainability. Specific questions we will focus on in the final study will include the following.

A. ENRM

- Are farmers continuing to adopt the SLM practices they learned during grant implementation? Why or why not?
- Do SLM practices spread within a village/community? Between villages or communities? Why or why not?
- What types of farmers are adopting these practices? Why?
- Are communities implementing the resource management plans that they developed during the grant activities? What have been the barriers and facilitators to carrying those out? Have they changed or updated these plans since the end of the grant period? If so, how?
- Have planted trees continued to survive and thrive? How is the community managing these new woodlots?
- What benefits do farmers say they are getting from these practices? Do they see both an environmental and an economic benefit? What evidence do they have of this?

[26] In the same time period, Mathematica also will conduct a final evaluation of the other activities under the ENRM project. Those plans are described in the companion report to this document.

B. SGEF

- Are REFLECT circles continuing? Why or why not, and to what extent? Are they making a difference in inclusive-community planning?
- Have VSL groups continued to operate successfully? Are they expanding? How? How are households using VSL loans?
- Are women continuing in positions of leadership? How are they viewed by the community?
- Has there been continued behavior change when it comes to women's rights within a household and a community? To what extent? Have there been tangible changes as a result for intra-household decision making, division of labor on and off the farm, and leadership opportunities?

C. Case-Specific

We will also investigate some case-study–specific questions. For example, on FISD:

- Has the implemented irrigation scheme reached all 600 intended beneficiaries? Has the scheme been managed successfully by the water user association? Have there been any land conflicts or unintended negative consequences as a result of the scheme?

In the longer run, the ENRM project interventions are intended to bring about (1) more efficient hydropower generation (by reducing sediment runoff and weed growth in the Shire); and (2) reduced poverty (through higher farming yields, revenue from alternative income-generating activities, and more gender equality in access to resources). Although these long-run goals are beyond the scope of the final study, findings on outcomes will inform whether the activities are on their way to affecting these longer run goals.

For the final study, we will reevaluate the five ENRM and SGEF grants that we focused on in the interim study. We will use the same in-depth case study approach, basing it on primary qualitative data, which we will start collecting in the summer or fall of 2020. There will be a combination of focus group discussions and key informant interviews with grant beneficiaries and local stakeholders, such as local leaders and government officials working in the areas. We will build on interim lessons learned and trace the evolution of any changes we find, focusing on sustainability, the spread of changes, higher-level outcomes, and the mechanisms underlying any changes we identify. Following rigorous analysis, we will produce a final report by mid-2021.

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Appendix:

Description of grant activities

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Table A.1. Description of TSP grant activities

Activity	Description
ENRM activities	
Soil conservation practices	Teach and introduce practices to the community to reduce soil erosion and water runoff, including realigning contour markers, constructing box ridges, and planting vetiver grass.
Clan-based forestry management:	Distribute tree seeds and seedlings; facilitate group tree planting; establish clan tree nurseries; establish clan forest areas; train community members on forest management; establish clan forest committees and help develop plans and bylaws for clan forest area management; conduct forestry talks at primary schools; advocate against deforestation.
Preparation and use of mulch and organic manure	Train farmers on making and using homemade mulch and organic manure to increase crop yield.
Promotion of alternative income-generating activities and use of climate-smart, fuel-efficient cookstoves	Distribute beehives and beekeeping supplies, train community members on apiary management, and establish beekeeping groups; train community members to build fuel-efficient cookstoves.
SGEF activities	
Training in advocacy and lobbying	Appoint women ambassadors; train women ambassadors and community members to advocate for ENRM activities so they can promote and lobby for improved natural resource management in communities.
REFLECT circles	Establish and support REFLECT circles, a participatory technique to support constructive and open community conversations designed to help the community take ownership of its development initiatives by identifying village priorities and potential solutions; train REFLECT circle moderators.
Adult literacy classes	Establish adult literacy community centers for men and women.
Early Child Development Centers	Establish early child development centers for young children.
Business skills training	Provide training and support through the VSLs for community members to participate in income-generating activities other than charcoal production, such as beekeeping.
VSL groups	Train VSL facilitators; support establishment of VSL groups; use the groups to encourage community members to engage in sustainable income-generating activities and not cut down trees to produce charcoal.

Source: TSP 2018.

ENRM = Environmental and natural resources management; SGEF = Social and Gender Enhancement Fund; VSL = village savings and loan.

Table A.2. Description of UP grant activities

Activity	Description
ENRM activities	
Tree planting and forest management trainings	UP set up the village natural resource management committees (VNRMCs) and catchment conservation committees (CCCs) to promote regeneration and afforestation. Most trees were raised in catchment nurseries in collaboration with CCCs, VNRMCs, ADCs/VDCs, traditional leaders, and the community at large.
Training on conservation agriculture techniques	The trainings used a lead farmer approach. Lead farmers were organized into farmer clubs that met regularly and discussed progress in each area. The trainings encompassed maximum soil cover, minimum tillage/reduced soil disturbance, and crop diversification.
On-farm soil and water conservation training	Lead farmers also trained the communities to make and use organic manure; plant vetiver grass; prepare marker ridges; realign ridges on slopes in relation to marker ridges planted with vetiver hedgerows; and construct water-harvesting structures such as swales, box ridges, and check dams.
Off-farm soil and water conservation and catchment management training	UP supported CCCs and VNRMCs by providing trainings on check dam construction using locally available materials to minimize runoff.
Interactive drama/ Theatre for Development (TFD)	TFD was used as a tool to sensitize communities on rights and responsibilities in land and resource management. The performances centered on the themes of tree planting, management, and care; post-harvest crop residue management; preparations on fire management; and social and gender power relations around productive resources in the catchment area (such as land).
Establishment of management plans and bylaws	UP and the community developed integrated catchment management plans (CMPs). The CMPs established bylaws and village environmental action plans. Orientation meetings with VNRMC and CCC members were conducted to discuss transparency and accountability of the usage of proceeds from the VFAs/catchment areas. UP also supported translation of the National Forestry Policy (2016) into Chichewa, Issues arising in the CMPs have been incorporated into the upcoming five-year Balaka District Development blueprint.
Capacity building and advocacy trainings	Duty bearers from departments of agriculture, forestry, and community development were engaged in training on local advocacy tools and tactics. Community members were also trained on advocacy tools and tactics, the right to development, decentralization, and their roles and responsibilities when demanding services.
SGEF activities	
REFLECT circles	In REFLECT circles, which are a participation technique to encourage constructive and open community conversations to address common development issues, facilitators helped participants identify challenges in the areas they were facing and action steps they could take to resolve them.
Adult literacy classes	Adult literacy classes were held as part of the REFLECT circles, and participants were taught how to read, write, and calculate.
Leadership and gender equality trainings	Participants were trained on specifics of being leaders in UP-led ENRM activities, elements of group dynamics, conflict resolution, leadership and assertiveness, gender-based violence, and gender-related laws. Women participating in community-based trainings were encouraged to reach out to and train other women in the communities. UP also trained traditional leaders on gender championing and encouraged them to accommodate women's involvement in various leadership roles.

Activity	Description
Village savings and loans (VSLs)	Village agents also used the meeting times to promote ENRM and sustainable land management.
Business management	In the second year of implementation, participants were trained in business management. The training themes were sources of capital to run the business activities and how to control expenses; calculating gross margin; market research; collective marketing; and links to cooperatives and associations.
Financial literacy trainings	Some of those who attended business management trainings were also trained in financial literacy. Trainings focused on keeping records of business transactions.
Cookstove production and marketing trainings	Participants were trained in how to make and market fuel-efficient stoves using sustainable kilns. Clean cookstoves use less firewood.
Beekeeping	Participants were given 50 beehives and trained in hive production and management.
Product marketing and linkages to markets	UP promoted crop diversification and the sale of drought-resistant cash crops to local markets. For example, UP linked beekeeping groups to a honey distributor and also bought cookstoves produced as part of the project.
Efficient fuel energy promotion pilot	In the second year of implementation, people were trained on how to acquire licenses for charcoal production, learned about the types of efficient charcoal production kilns, and had hands-on experience in constructing a half-orange dome. However, after discussions with MCA-Malawi, the project decided not to promote sustainable charcoal. Inexpensive biogas digester systems were piloted instead.
Support development of other off-farm income-generating opportunities for youth	Youth clubs were encouraged to participate in off-farm income-generating activities to reduce their participation in environmentally destructive activities such as charcoal production. They chose to be trained in mushroom production and honey production.

Table A.3. Description of FISD grant activities

Activity	Description
ENRM activities	
Solar power irrigation scheme covering 60 hectares	Installation of solar pumps, solar panels, and PVC pipes and fittings; construction of water reservoir; training community members on system operation and maintenance; facilitate trainings on establishing and increasing the capacity of WUAs and resolving land conflicts.
Soil conservation practices	Teach and introduce practices to the community to reduce soil erosion and water run-off. Practices include digging swales (shallow channels), building check dams, and conducting marker ridge realignment.
Forestry management:	Distribute tree seeds and seedlings; facilitate tree planting; establish tree nurseries; train community members on forest management; strengthen village natural resource committees and help develop forest management plans; conduct forestry talks at primary schools; implement advocacy campaign against deforestation.
Preparation and use of organic manure	Train farmers on making and using homemade organic manure to increase crop yield
SGEF activities	
REFLECT circles	Train REFLECT circle moderators; establish and support REFLECT circles in order for the community to take ownership of its development initiatives by identifying village priorities and potential solutions.
Adult literacy classes	Establish adult literacy community centers for men and women; train and support adult literacy teachers
Business skills training	Provide training and support through the VSLs for community members to participate in income generating activities besides charcoal production, such as livestock management or fisheries.
VSL groups	Train VSL facilitators; support establishment of VSL groups; through the groups encourage community members to engage in sustainable income generating activities and not to cut down trees for charcoal production.

Source: FISD 2015 and 2018

Table A.4. Description of CCJP grant activities

Activity	Description
ENRM activities	
Natural resource management (afforestation) trainings	CCJP mobilized community members to form Village Forest Committees (VFC) and Village Natural Resource Management Committees (VNRMCs). Following the trainings, communities established bylaws to prevent tree cutting. CCJP worked with the department of forestry to set up forest management plans. CCJP also distributed push bikes for forest committees to assist them in monitoring the forests.
Tree planting	CCJP distributed tree seedlings and facilitated tree planting and management of trees at the community and household levels.
Resource/village mapping	CCJP conducted meetings with influential community leaders and later community members to assist in identifying community resources that needed management (for example, rivers, forests, orchards, arable land, etc.) and set up management plans. Those meetings also mapped out items the villages needed (for example, boreholes, schools, bridges, etc.) and CCJP facilitated meetings to assist community members in presenting village needs to duty bearers. For community members, these meetings also included strategies to conserve household resources (for example, recycling).
SGEF activities	
REFLECT circles[a]	CCJP established REFLECT circles in the second year of the project. The REFLECT circle facilitators helped participants identify challenges the areas were facing and action steps they could take to resolve them.
Adult literacy classes	Under the REFLECT study circles, CCJP established adult literacy trainings. The subjects included: comprehension, mathematics, reading, and dictation.
Gender equality trainings	The trainings included sessions on HIV/AIDs awareness, gender-based violence, and conflict management. Couples were chosen as gender champions to continue sensitizing communities on the gender issues following the trainings.
Women empowerment through leadership training	After the trainings, CCJP lobbied local stakeholders to include women in leadership roles during the project implementation. As a result, women were included as facilitators, VSL leaders, VFC leaders, and in village tribunals.
Household planning and budgeting trainings	Men and women were trained on household resource management, in particular household planning and budgeting.
VSL groups	CCJP worked on establishing new VSLs in the communities and strengthening the existing ones.
Business management and marketing trainings	VSL participants were also trained in business and marketing skills. Topics included business management, the importance of business to individuals and the society, characteristics of a successful entrepreneur, and the relationship between business and environmental management.
Livestock pass-on scheme	CCJP distributed goats and chickens via a pass-on program (after the livestock reproduced, beneficiaries had to pass on the first offspring to another group member), and organized trainings on livestock management and care. Participants also learned how to make fertilizer from compost manure. CCJP also organized learning visits for influential community leaders. For example, district-level stakeholders visited another district where a livestock pass-on program was successfully implemented by the Food and Agriculture Organization.
Beekeeping training	CCJP facilitated trainings on beekeeping, distributed beehives, and provided other relevant materials—beehive suits, smokers, gloves, gumboots, and slashes. Communities also undertook initiatives to have their own beehives.

[a] REFLECT stands for Regenerated Freirean Literacy Through Empowering Community Techniques, and is a participatory technique to support constructive and open community conversations to address common development challenges.

Table A.5. Description of WOLREC grant activities

Activity	Description
REFLECT circles	People attending the REFLECT circles participated in: • Tree planting • Empowering community members to demand social services from duty bearers • Adult literacy classes
ENRM activities	
Tree planting/forest management	WOLREC trained men and women on environmental conservation and natural resource management. As part of the REFLECT circles, WOLREC gave a variety of trainings and held activities to demonstrate soil fertilization and enrichment techniques, soil conservation practices (for example, planting elephant grass (senjere) along the river banks to prevent erosion), and tree planting and forest management (for example, establishing a tree nursery). WOLREC sensitized chiefs (traditional leaders) and VDC and ADC members on environmental issues.
Soil conservation practices	
Soil fertilization practices	
Influence on policy and legislation	WOLREC held meetings of local government representatives and community members to facilitate a collaborative working relationship. Community members learned how to access social services and demand transparency and accountability. Government representatives were able to identify and validate community needs and help find solutions. As a result, communities drafted and passed bylaws to lower the occurrence of GBV, early marriages, deforestation, and charcoal production.
SGEF activities	
Adult literacy classes	WOLREC established adult literacy classes (also referred to as REFLECT classes) for men and women.
Gender equality trainings	WOLREC sensitized chiefs (traditional leaders) and VDC and ADC members on gender issues. The training focused on helping the chiefs understand that women's participation in development is a human right, and they have the responsibility to promote it. WOLREC also trained men on gender issues and women's rights. The trainings focused on transformative masculinity, gender, and human and women's rights in the context of female empowerment and environmental and natural resource management. The trainings also highlighted (1) the barriers women face as they seek to be in leadership positions and participate in decision-making: (2) violence against women; (3) women's lack of support from men; (4) cultural practices that look down on women, and (5) the lack of economic independence for women. After the trainings, male ambassadors (also referred to as advocates or champions or exemplary men) were appointed to advocate for women's rights, fight GBV, and train other men in the community on gender issues.
Female empowerment through leadership training	WOLREC trained women in leadership and assertiveness skills: how to effectively participate in decision making at the household and community levels and take up leadership positions. The trainings also raised awareness of the issues of HIV and AIDS and environmental conservation. Some of the main topics covered in the training included historic background on women's involvement in decision making processes; the factors that keep women from decision making positions; the importance of women's participation in decision making processes; leadership styles; and assertiveness skills.
Legal aid clinics	WOLREC set up legal aid clinics where legal personnel helped women who had problems involving land disputes, GBV, marriage, and divorce.
VSL groups	WOLREC established village savings and loan (VSL) associations, provided capital injections, and trained local community members on how to run the VSLs and monitor their activities. Men were welcome to participate, but the majority of members were women. Through VSL associations, women were able to save money, access loans, support families, and start new businesses (such as selling produce or clothing or raising livestock).

Activity	Description
Business management and marketing trainings	WOLREC trained VSL members in business management and marketing. The topics covered choosing the right business, doing a needs assessment and market research, developing a business plan, performing risk analysis, bookkeeping, profit calculations and utilization, costing and pricing, quality control and marketing, and how these are related to the environment and gender.
Livestock pass-on scheme	WOLREC distributed goats to beneficiaries as part of the livestock pass-on scheme. (Once the goats started reproducing, beneficiaries were expected to pass the first kid on to another group member.) WOLREC also provided training on how to raise and take care of livestock. In addition to gaining an income source from the sale of livestock, farmers learned how to make affordable fertilizer from goat manure.
Beekeeping training	WOLREC conducted training on sustainable beekeeping and honey production.

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