



Pathways Project End of Project Evaluation Report



CARE Malawi

Prepared by William Kasapila

March 2019

Disclaimer

This report has been authored through the generous support provided to CARE Malawi by Bill and Melinda Gates Foundation (BMGF). The opinions expressed herein are those of the author and do not necessarily reflect the views of the donor, CARE and its implementing partners.

Recommended Citation

CARE Malawi. March 2019. Second Final Evaluation of the Pathways to Secure Livelihoods Project in Kasungu and Dowa Districts of Malawi. Lilongwe, Malawi.

Cover Photo

Dzoole producer group singing songs to welcome the evaluation team. In the songs, the group appreciates Pathways benefits, depicting positive changes in their lives and promising to continue doing what they do to remain empowered and food secure. In front to the right is the lead farmer for the group, Mwatitha Charles, who is very motivated, knowledgeable about new agricultural technologies and has good communication skills with peer women farmers.

Project Summary

Project Name	Pathways to Secure Livelihoods
Donor	Bill and Melinda Gates
Implementer	CARE Malawi
Key Partners	ICRISAT, LUANAR, Government's Ministry of Agriculture, Concerned District Assemblies, local NGOs working on livelihoods
Targeted Areas	Dowa (Traditional Authority Dzoole) Kasungu (Traditional Authorities Kaomba, Njombwa and Mwase)
Beneficiaries	14,282 poor women farmers
Project Lifespan	5 years (Between 1 December 2012 and 31 December 2018)
Project Goal	Increase the productivity and empowerment of poor women farmers in sustainable and equitable agriculture systems, enhance the quality of responsive agriculture programming at scale and contribute to the global discourse that surrounds women and agriculture
Outcomes	<ol style="list-style-type: none"> 1. Increased access to productive assets and resources (including inputs, markets, and financial tools) 2. Increased women's capacity (skills, knowledge, self-confidence) 3. Increased productivity (including profitability and nutrition outcomes) 4. Increased influence over household decisions and assets, and 5. Improved enabling environments, which encompass cultural and social norms and attitudes, markets and extension systems and gender-sensitive policies
Reporting Period	October 2015-December 2018 (2.3 years)
Purpose of the Evaluation	To assess relevance, impact, effectiveness, efficiency, lessons and sustainability of the Pathways project at the conclusion of its implementation

Pathways Malawi Dashboard, December 2018

<i>Impact and target groups, members and outreach</i>	Malawi
Number of villages	235
Number of groups by type	1,528
▪ VSL	1020
▪ Producer groups	508
▪ Self Help Groups	0
▪ Solidarity groups	0
▪ Co-operatives /Networks	0
Other	0
Total number of poor women smallholder farmers (Impact Population) in collectives (Gates Foundation)	11,282
Total number of Impact Population (other donors)	14,882
% of women in leadership position as compared to the baseline	88.7
Total number of other target group	
▪ Men and Boys e. g. spouses, other	3,600
▪ Elites including traditional leaders	294
Other	0

Executive Summary

Background: Malawi is one of the least developed countries in the world. Agriculture represents 40 percent of the GDP and employs more than 85 percent of the population. Most of the agriculture is practiced by women and is dependent on rain-fed agriculture. As the impacts of climate change increase, women in agriculture are the most affected since they also lack support. CARE Malawi, in partnership with ICRISAT and LUANAR, implemented a 5-year (2012-2018) Bill and Melinda Gates Foundation (BMGF)-funded Pathways project in Kasungu and Dowa districts to help address the situation.

Project Objectives: In particular, Pathways aimed to increase productivity and income in equitable agriculture systems. CARE innovated an effective Theory of Change to address real issues affecting rural women farmers by providing them with capacities in agriculture; access to inputs, extension services and markets; empowerment to influence decisions; and an enabling environment for growth.

Purpose of the Evaluation: The main purpose of this evaluation was to assess the impact, effectiveness and sustainability of the project, document lessons, good practices and challenges faced in putting the Theory of Change into practice, and draw recommendations to inform the design of similar projects in future. Throughout the process, we gathered information on gender perspective as it relates to power dynamics, attitudes and relations between women and men.

Evaluation Design and Methodology: Pathways evaluation had two phases. Phase 1 was conducted between August and September 2015 by an international consultant, TANGO (Technical Assistance to NGOs). Phase 2 (which is the current assessment) included a survey of 212 households undertaken internally by CARE Malawi in October 2018 and qualitative assessment done externally by the national consultant in January 2019. A longitudinal design was used in the household survey, meaning that data were collected from households that participated in the baseline and first evaluation. The qualitative study involved conducting a desk study and discussions with 15 key persons and 23 groups of interest in and outside the project.

Results: Pathways has met and, in most cases, surpassed targets set in its M&E framework. In the words of women themselves the project has worked very well, focusing on groundnuts and soybean as high-value cash crop substitutes for tobacco because of their high potential for markets, ability to replenish the lost soil fertility and strong nutritional value. It has grown from working with 9,000 to 14,282 farmers (hosting a population of 71,410 people), organising them into 1,528 groups. Women provide leadership to most of the groups after being transformed to become successful wives, farmers and entrepreneurs who can make independent decisions and speak in public.

In 2015 alone, collective sale revenues from groundnuts and soy amounted to MK128, 601,938 (US\$233,821.7) and rose to MK854, 356,267 (US\$751,511) by the end of 2017.

Contract farming organized by the project contributed US\$34,233 to these revenues. In 2014, the project conducted 188 community-wide gender dialogue sessions and reached out to 9,654 people, 7193 female and 2464 male, helping them to internalize and address gender inequalities. Men have generally started looking at women as partners in agriculture and development that is cementing marriage bonds and creating an enabling environment for women to succeed. Along with this, CARE Malawi linked women farmers to key players in the groundnut and soy value chains to help them excel.

As a consequence, by December 2016 a total of 246 farmer groups had accounts with OIBM and other banks through which they saved MK49, 175,577 and 6 VSLs accessed two group loans worth MK4,800,000 (US\$7,804.88) which they invested in agriculture, business and VSL activities. VSLs profited and shared out US\$871,178 in the year, with more benefits seen in 2017 when savings accumulated to US\$3,756,435 e.g. earnings of MK47, 489.32 to MK204, 769.33 per household on average. In turn, per capita household monthly incomes and expenditures doubled by the time the project closed in December 2018. Although agricultural productivity continued to decline over the project life due to poor weather conditions, Pathways farmers remained food secure and continued to eat at least two meals a day. Household dietary diversity (HDDS) and women intra-household food access (AHA) data from this evaluation found levels of consumption to be acceptable and typical of food secure households. These results showcase that Pathways beneficiaries have grown their incomes, assets and food availability in the face of the changing climate and are better off even in difficult years.

Conclusion and Recommendations: Pathways spent 100 percent of its lifespan when this evaluation was completed in January 2019. Its foremost achievement was its 5-year presence, concentrating efforts in the same districts where CARE Malawi has been working for the past 20 years since 1998. Its uniqueness, which previous and other projects have failed to achieve, is the ability to craft the five change levers and direct focus on women farmers to empower and give them voice for challenging traditional perceptions and cultural norms regarding their capacity and roles. One major lessons learned is that ‘addressing main problems hampering agricultural production and providing a mix of interventions in a supportive environment to mitigate gender inequalities and the effects of the changing climate are the most viable ways of securing rural livelihoods in a sustainable manner. Since the project has come to a non-renewable end, the remaining local structures (government’s agriculture staff, lead farmers and NGOs) and producer groups of women and men would do well to continue working on the same interventions to see more growth and impact. Future success is contingent upon the ability to target agriculture messages specifically toward new and youthful farmers that will be joining the existing groups many of whom consider agriculture as arduous and an occupation for old people.

Acknowledgements

Thank you to all the people who contributed their time, efforts and ideas to this evaluation. The author of the report would like to particularly acknowledge the technical and logistical support provided by CARE Malawi at both country and field offices.

In October 2018 and January 2019, evaluation teams visited communities in four TAs of the project in Kasungu and Dowa for field work. Vehicle drivers and local guides played important roles of taking us to sampled villages that helped to minimize unnecessary time wastage. To all of you, for the time, patience and diligence you provided throughout the process, we are deeply thankful.

Most importantly, this evaluation would not have been possible without the cooperation, knowledge and consent of the communities, households. Various groups of farmers and key persons from partner organisations.

Sincere gratitude should also go to different lead farmers (FFT's) and village agents for mobilizing the aforesaid households, groups and key persons to participate in the study.

Table of Contents

Project Summary	2
Executive Summary.....	5
Acknowledgements.....	7
List of Acronyms	11
1.0 Introduction.....	13
1.2 Geographical Areas of the Project.....	15
2.0 Evaluation Purpose	16
2.1 Specific Objectives	16
2.3 Evaluation Questions.....	16
3.0 Evaluation Methodology	18
3.1 Limitations of the Evaluation	19
4.0 Evaluation Results.....	20
4.1 Relevance of the Pathways Project	20
4.1.1 To what extent was the project strategy and activities implemented relevant to the needs of poor smallholder farmers especially women and girls?	20
4.1.2 Are the Pathways objectives still relevant given the achievements made?	21
4.1.3 Has this project taken adequate steps to redress gender imbalances?.....	22
4.2 Project Impact.....	24
4.2.1 What is the impact (positive and negative) of Pathways?	24
4.2.1.1 Impact 1: Increased Food Security.....	24
4.2.1.2 Impact 2: Livelihoods Resilience	28
4.2.1.2.1 Coping Strategies Adopted to Minimize Food Insecurity	28
4.2.1.2.2 Non-consumption Coping Strategies.....	30
4.2.1.3 Impact 3: Economic Poverty Reduction	31
4.2.1.3.1 Household Income and Expenditures	31
4.2.1.3.2 Households and Women with Savings.....	32
4.2.1.3.3 Mean Asset Index (MIA) Score.....	33
4.2.1.4 Impact 4: Women’s Empowerment	34
4.2.1.4.1 Improvements in Self-Confidence.....	34
4.2.1.4.2 Improvements in Relationships.....	35
4.3 Effectiveness of Pathways	36

4.3.1 Change Lever 1 – Capacity	37
4.3.2 Change Lever 2 – Access.....	42
4.3.3 Change Lever 3 – Productivity.....	48
4.3.4 Change Lever 4 - Household Influence.....	55
4.3.5 Change lever 5 - Enabling Environment	59
4.4 Sustainability of the Pathways Project Activities	63
4.5 Knowledge Generation.....	65
4.5.1 Lessons and Best Practices	65
4.5.2 Best Practices for Pathways.....	67
4.5.3 Key Challenges in Putting Pathways Theory of Change into Practice	68
5.0 Conclusions and Conclusions.....	70
5.1 Recommendations	70

List of Tables

Table 1: Geographic Area and Population Coverage	Error! Bookmark not defined.
Table 2: Key Participants, Target and Impact Groups	Error! Bookmark not defined.
Table 3: Impact indicators for Pathways	Error! Bookmark not defined.
Table 4: Mean HDDS and women’s intra-household.....	Error! Bookmark not defined.
Table 5: Access of different food groups by households and women	Error! Bookmark not defined.
Table 6: Frequency of coping behaviors for food insecurity over the years	Error! Bookmark not defined.
Table 7: Negative coping strategies practiced in the past 3 months to the studies	Error! Bookmark not defined.
Table 8: Per capita monthly household income and expenditures in USD	Error! Bookmark not defined.
Table 9: Household and Women Savings	Error! Bookmark not defined.
Table 10: Capacity Change Lever Results.....	Error! Bookmark not defined.
Table 11: Assets owned by women farmers and their households.....	Error! Bookmark not defined.
Table 12: Trainings conducted by the project as part of capacity building	Error! Bookmark not defined.
Table 13: Access Change Lever Results	Error! Bookmark not defined.
Table 14: Collective input purchase by Pathways groups of farmers..	Error! Bookmark not defined.
Table 15: Progression of seed pass on system over 3 years...	Error! Bookmark not defined.

Table 16: Collective sales and revenues from groundnuts and soy..... **Error! Bookmark not defined.**

Table 17: Contract farming trends over a period of 4 years . **Error! Bookmark not defined.**

Table 18: Productivity Performance indicators **Error! Bookmark not defined.**

Table 19: Per capita agricultural productivity of maize, soya and groundnuts **Error! Bookmark not defined.**

Table 20: Rates of child underweight in Dowa and Kasungu **Error! Bookmark not defined.**

Table 21: Household Influence Performance Indicators **Error! Bookmark not defined.**

Table 22: Collaboration with Government and Agriculture stakeholders **Error! Bookmark not defined.**

Table 23: Prices of crop produce in the 2017/2018 season... **Error! Bookmark not defined.**

List of Figures

Figure 1: Theory of Change for Pathways.....14

Figure 2: Logic model used by the evaluation.....22

Figure 3: Mean Asset Index Score for the households.....33

Figure 4: Participation of women in community groups.....35

Figure 5: The Malawi Six Food Groups.....55

Figure 6: VSL share out money.....60

Boxes

Box 1: Key levers of change applicable across contexts.....23

Box 2: Sele cooperative of TA Dzoole in Dowa.....45

Box 3: Terms of contract between Pathways and ICRISAT.....47

Box 4: Pathways beneficiaries' description of fellow villagers not in the project.....58

Box 5: Intended outcomes of Pathways: Summary and Highlights.....61

Box 6: Benefits of working in groups from farmers perspectives.....66

List of Acronyms

ACE:	Agricultural Commodity Exchange for Africa
ADMARC:	Agricultural Development and Marketing Corporation
AEDC:	Agriculture Extension Development Coordinator
AEDO:	Agriculture Extension Development Officer
AHCX:	Auction Holdings Limited Commodities Exchange
BMGF:	Bill and Melinda Gates Foundation
CCJP:	Catholic Commission for Justice and Peace
CSI:	Coping Strategy Index
DAPP:	Development Aid from People to People
DICE:	Drought Mitigation through Irrigation and Conservation Agriculture
ETG:	Export Trading Group
FAW:	Fall Armyworms
FFBS:	Farmer Field Business School
FFT:	Farmer to Farmer Trainers (Lead Farmers)
FGD:	Focus Group Discussions
GBV:	Gender Based Violence
HDDS:	Household Dietary Diversity Score
HDDS:	Household Dietary Diversity Score
ICRISAT:	International Crops Research Institute for the Semi-Arid Tropics
IHA:	Women's Intra-Household Access

KII:	Key Informant Interviews
LUANAR:	Lilongwe University of Agriculture and Natural Resources
M&E:	Monitoring and Evaluation
MAZIKO:	Nutrition Foundation for Mothers and Children
MDHS:	Malawi Demographic Survey
MGDS-III:	Malawi Growth and Development Strategy III
MIA:	Mean Asset Index Score
MOAIWD:	Ministry of Agriculture, Irrigation and Water Development (MOAIWD)
NASFAM:	National Smallholder Farmers' Association of Malawi
OIBM:	Opportunity International Bank of Malawi
PICS:	Purdue Improved Crops Storage Bags
SANI:	Southern Africa Nutrition Initiative
SDGs:	Sustainable Development Goals
TA:	Traditional Authority
TANGO:	Technical Assistance to NGOs
TOC:	Theory of Change
UNICEF:	United Nation Children's Fund
VA:	Village Agents
VCPC:	Village Civil Protection Committee
VDC:	Village Development Committee
VNRMC:	Village Natural Resources Management Committees
VSL:	Village Savings and Loans
WFP:	World Food Programme

1.0 Introduction

CARE Malawi, in partnership with ICRISAT (International Crops Research Institute for the Semi-Arid Tropics) and LUANAR (Lilongwe University of Agriculture and Natural Resources) implemented a 5-year Bill and Melinda Gates Foundation (BMGF)-funded Pathways to Secure Livelihoods project (hereafter referred to as Pathways) in Kasungu and Dowa between 1 December 2012 and 31 December 2018. Pathways is also implemented in India and selected regions of Ghana, Mali and Tanzania.

Pathways' goal in Malawi was to increase agricultural productivity and rural incomes for 14,282 poor women farmers in sustainable and equitable agriculture systems, enhance the quality of responsive agriculture programming at scale and contribute to the global discourse that surrounds women and agriculture. The project had five overarching outcomes:

1. Increased access to productive assets and resources (including inputs, markets, and financial tools)
2. Increased women's capacity (skills, knowledge, self-confidence)
3. Increased productivity (including profitability and nutrition outcomes)
4. Increased influence over household decisions and assets, and
5. Improved enabling environments, which encompass cultural and social norms and attitudes, markets and extension systems and gender-sensitive policies.

In pursuant of its goal and outcomes, Pathways promoted sustainable agriculture, market engagement, nutrition and gender and women's empowerment. It carried out the following activities: training of farmers in sustainable agriculture and dietary diversity, linkages of farmers to input and output markets and conducting gender dialogue sessions with women farmers and their spouses.

CARE Malawi was responsible for field-level implementation, ICRISAT provided technical and agronomic support on crop value chains and LUANAR generated evidence about the

impact of sustainable agriculture interventions the project promoted. Government's Ministry of Agriculture, Irrigation and Water Development (MOAIWD) reviewed the pathways approach, trained farmer-to-farmer trainers (FFT's), also known as lead farmers, and participated in project monitoring.

CARE Malawi began its work in 1998, supporting the government to achieve development goals with multiple projects in food security, nutrition, agriculture, health, education, economic development, governance and advocacy central to which is the empowerment of women and girls. CARE envisions reducing poverty in the country by contributing to economic and social transformation, and unleashing the power of the most vulnerable women and girls.

1.1 Pathways Theory of Change

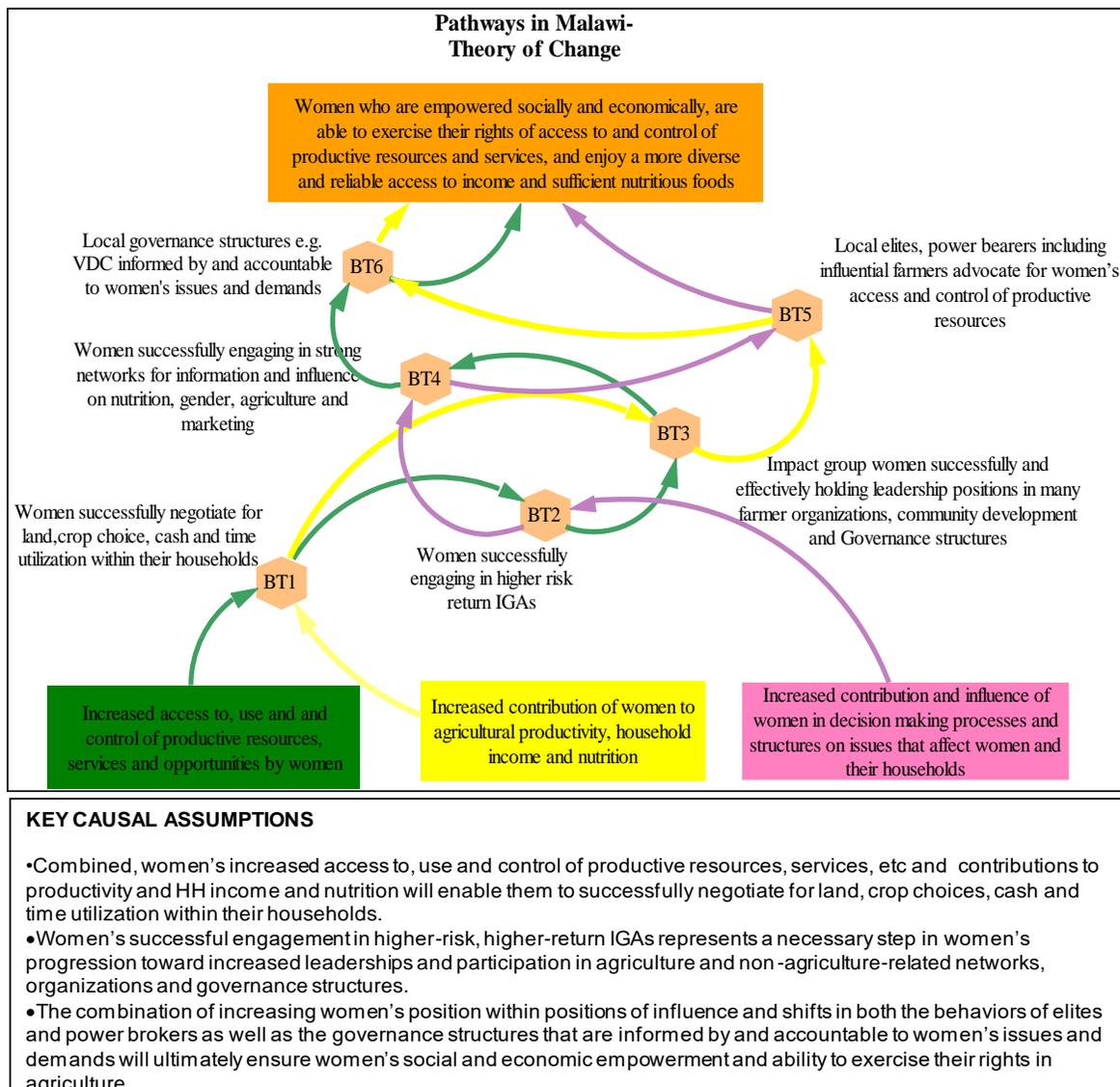


Figure 1: Theory of Change for Pathways (Source: Pathways M&E Plan)

CARE’s Pathways approach is based on a global theory of change that addresses the underlying causes of poverty and women’s exclusion in agriculture through increased productivity and empowerment of women farmers and more equitable agriculture systems at scale. CARE identified five common and closely interrelated change levers that must be achieved to attain the Pathways goal of more secure and resilient livelihoods, namely capacity, access, productivity, household influence and enabling environments. Objectives 2 and 3 ensure lessons learned from the Pathways experience contribute to positive change in the global discourse on equitable agricultural programming at scale.

1.2 Geographical Areas of the Project

In Malawi, Pathways was implemented in four Traditional Authorities (TAs) in Kasungu and Dowa from the central region (Tables 1 and 2). The two districts have a humid subtropical climate and a rainy season that lasts from November or December to April. The people are Chewas by tribe, and farmers that culturally grow tobacco as the main cash crops. They also grow maize, legumes (soy, groundnuts, cow peas and Bambara nuts), sweet potatoes, cassava, pumpkins and a variety of vegetables and fruits for food.

Table 1: Geographical Area and Population Coverage

Region	District	Traditional Authorities	Sex		Total
			Female	Male	
Central Region	Kasungu	Kaomba	1,517	949	2,466
		Njombwa	2,114	490	2,604
		Mwase	1,289	389	1,678
		Total	4,920	1,828	6,748
	Dowa	Dzoole	6,362	1,172	7,534
		Total Beneficiaries	11,282	3,000	14,282
	Total	Total Household Members	71,410		

Table 2: Key Participants, Target and Impact Groups

Key Participants	Impact or Target Group	Number of Direct Participants	Number Indirect Participants
14,282	14,282	14,282	71,410

2.0 Evaluation Purpose

The main purpose of this evaluation was to assess the extent to which Pathways has achieved its goal and remained relevant, effective, impactful and sustainable in securing livelihoods for smallholder women farmers in Kasungu and Dowa districts.

The evaluation also sought to document best practices and lessons learned in the implementation of activities and draw relevant recommendations to guide programming of similar projects in future. Throughout the process, we strived to gather information on gender perspectives as they relate to power dynamics between women and men, decision making and participation at household and community levels.

2.1 Specific Objectives

1. To evaluate the overall impact of the project with a strong focus on assessing the results at outcome and project goal levels.
2. To identify the intended and unintended outcomes, best practices, lesson learned as well as challenges that arose from project design and implementation.
3. To generate key lessons, identify practices for learning, and derive conclusion and recommendation based on the analysis of findings.

2.3 Evaluation Questions

The evaluation sought to answer the following questions in line with the DAC criteria:

Relevance

1. To what extent was the project strategy and activities implemented relevant (to national and CARE policy and strategy) in responding to the needs of poor small holder farmers especially women and girls?
2. To what extent do achieved results (project goal, outcomes and outputs) continue to be relevant to the needs of poor small holder farmers especially women and girls?

Impact

1. What are the unintended consequences (positive and negative) resulted from the project?

Effectiveness

1. To what extent were the intended project goal, outcomes and outputs achieved and how?
2. To what extent did the project reach the targeted beneficiaries at the project goal and outcome levels? How many beneficiaries have been reached?
3. To what extent has the project generated positive (or negative) changes in the lives of targeted (and untargeted) smallholder farmers in relation to access, capacity, productivity & profitability, household influence and enabling environment for agriculture, marketing, gender and nutrition gaps addressed by the project? Why? What are the key changes in the lives of those smallholder women farmers? Please describe those changes.
4. What internal and external factors contributed to the achievement and/or failure of the intended project goal, outcomes and outputs? How?

Sustainability

1. How are the achieved results, especially the positive changes generated by the project in the lives of poor small holder farmers especially women and girls at the project goal level, going to be sustained after this project ends?

Knowledge Generation

1. What are the key lessons learned that can be shared with other practitioners on the five common and closely interrelated change levers (Capacity, Access, Productivity, Household Influence and Enabling Environment) that the project impacted to achieve its goal
2. Are there any promising practices? If yes, what are they and how can these promising practices be replicated in other projects and/or in other countries that have similar interventions?
3. What outstanding advocacy and implementation priorities still require action and commitment?

Primarily, the evaluation findings and processes are intended for the project and will be shared with relevant stakeholders, including managers of other projects within CARE, local NGOs working on rural livelihoods, government ministries and department and private companies in the agriculture sector.

The remainder of the report is structured as follows: **Section 2** is the design and methodology followed in this evaluation. **Section 3** presents the results in line with the evaluation objectives and questions. **Section 4** are the conclusions and recommendations made for the local structures, government and non-governmental organisations and the private sector that include agro-dealers, seed and financial service providers.

3.0 Evaluation Methodology

Pathways evaluation had two phases. **Phase 1** was conducted between August and September of 2015 by an international consultant, TANGO (Technical Assistance to NGOs), working in collaboration with CARE and its M&E Technical team. TANGO also carried out the baseline study of Pathways in July and August of 2012. **Phase 2** was undertaken internally by CARE and externally by the national consultant. CARE conducted the household survey in October 2018 and external consultant did the qualitative assessment in January 2019. The evaluation used mixed methods to collect data for analysis and interpretation that included a desk-based document review, key informant interviews and focus group discussions. Further details on how these methodologies were implemented follow below.

1. **Desk Review** involved a rigorous study of key documents of relevance such as the project proposal and logical framework, quarterly and annual routine monitoring and evaluation reports, standard operating guidelines (SOGs) and other documents available from implementing partners and stakeholders.
2. **Key Informant Interviews (KII):** in total 15 respondents were interviewed (male and female) to get first-hand information about the project; its design, implementation and performance. The respondents were project staff at various levels, lead farmers, village agents, agriculture extension staff, local leaders and community volunteers. The table in **Annex 1** shows the breakdown of the key persons consulted.
3. **Focus Group Discussions (FGDs):** 23 discussions were conducted with groups of smallholder farmers' (women and men), members of Village Savings and Loans (VSL) and Farmer Field Business School (FFBS) as well as Marketing and Village Development Committees. Discussions with groups of 10-15 people centred on selected topics with planned questions, while allowing for interesting, new or unplanned follow up questions to be asked as well. See **Annex 1** for more information. Purposive sampling was used to select persons and groups of interest and their numbers depended on data saturation – a point where new information was not coming forth.
4. **Field visits:** The evaluation team also conducted field visits to demonstration plots, fields for women farmers, irrigation groups and income generating activities by VSL groups to understand the current situation of all planned activities and observe evidences of best practices taking place in the communities.

CARE calculated the sample size for the household survey. A total of 212 women farmers and their spouses, from 129 villages selected at random from a complete list of 235

Pathways villages, were interviewed. The evaluation employed a longitudinal design, meaning that data were collected from households that participated in the baseline and first evaluation. The same questionnaires and checklists used throughout make comparisons and tracking of progress easy. Sample sizes for baseline and first evaluation studies were determined by TANGO and CARE, and were 763 and 451, respectively.

CARE and the consultant trained enumerators and supervised them during field work to ensure quality of the data collected. Besides orienting enumerators on basic interviewing techniques, probing for answers and recording of responses, the training discussed evaluation objectives, design and methodology, work performance expected as well as roles, responsibilities and ethics in data collection. Supervision involved ensuring that the survey methodology was followed closely, checking completeness of questionnaires, ensuring accuracy in the recording of information, and discussing and rectifying any problems encountered in the field.

Data from the household survey were entered and analysed in the Microsoft Excel and SPSS computer software packages. Descriptive statistics, such as cross tabulations, frequencies and percentages, were generated and used to describe the findings. Qualitative data from key persons and group discussions were analysed manually through content analysis by the field team at the end of each day and reported as anecdotes to contextualize quantitative findings.

3.1 Limitations of the Evaluation

The qualitative assessment for this evaluation faced limitations typical of the rainy season in Malawi – muddy and impassable roads. Respondents were busy with farming and buying of inputs at the markets. It was difficult in some areas to gather them at a central location for discussions.

In addition, men not taking part in the project had problems answering questions on gender. Many of them disliked the whole concept because they have misunderstood that gender equality is about women. In both districts and Malawi at large, ‘gender’ is simply ‘*jenda*’ (no specific vernacular term) and, as a consequence, many people have problems conceptualizing what it means in real life situation.

In addition, it is possible that respondents under or over reported actual food consumption and coping behaviors due memory lapse. The evaluation used a longer recall period of 3 months in a bid to elicit CSI information that is more representative of typical behaviors. However, in other contexts experience with the CSI and other food consumption recall questionnaires indicates that about a week is the longest time that people can remember their behaviors accurately. A seven-day recall period is more appropriate and

recommended. The problem was minimized through the consistent use of the recall period in the questionnaires of the three project studies.

4.0 Evaluation Results

4.1 Relevance of the Pathways Project

4.1.1 To what extent was the project strategy and activities implemented relevant (to national and CARE policy and strategy) in responding to the needs of poor small holder farmers especially women and girls?

Pathways was very relevant in the context of the two districts and Malawi as a whole. The backbone of the country's food and economy is agriculture. More than 80 per cent of the total exports come from the sector. Most of the agriculture is practiced by women smallholder farmers. Despite this, rural women along with adolescent girls face all sorts of problems in the agriculture sector ranging from land and labour constraints, high illiteracy levels and difficulties to understand technical information about agriculture, lack of agricultural services and markets, work over load that limits time for other activities to external aggravating factors such as recurring dry spells and poor rains.

Overall, 100 percent of the evaluation respondents stressed that one of the main areas of value that Pathways has added as compared to other humanitarian projects is its emphasis on women's rights and empowerment as well as its capacity to engage local stakeholders to take an active part in the whole process. The project has made a big difference in the lives of poor women farmers that has benefited their families, including girls, after transforming them to become successful wives, farmers and entrepreneurs. Interviews with different groups of women showed that Pathways women are far much better physically, economically and emotionally than their counterparts in the same villages who have not been participating in the project.

Pathways is valued specifically because of its ability to mobilize communities and reach out to influential others at the community level, such as men and local leaders who are the custodians of culture, to focus on issues affecting women and adolescent girls in agriculture and devise lasting solutions together.

The uniqueness of Pathways, which previous and other projects have failed to achieve, is the direct focus on women to give them voice and the ability to challenge traditional perceptions and cultural norms regarding their capacity and role within the family and community.

Various stakeholders also felt that overall the project's approach and methodology contributed to consolidating the capacity of staff and the local structures to better

understand how to implement women rights based livelihood programs in practice which will be used for similar projects in future.

Comprehensive baseline and endline studies by TANGO also added value to the project both in terms of the process and adjustments to be done along the way to make it relevant and responsive to the needs of the targeted communities.

At the very beginning stage, Pathways used participatory approach and a well-defined criteria to select women with a wide spectrum of vulnerability. The criteria were explained to the communities and received acceptance. This acceptance means that the project has spent hard earned donor money on one of the most vulnerable and impoverished groups of people, even by the community's standards.

To this end, by empowering women and making agricultural systems more equitable and profitable, Pathways has contributed towards the attainment of Sustainable Development Goals (SDGs), which Malawi along with 192 other UN member states endorsed in 2015, in particular Goals number 1 (no poverty), 2 (zero hunger) and 3 (good health and well-being), 5 (gender equality) and 10 (reduced inequalities). In particular, Pathways contribution is on SDGs number 5 and 10 which aim to ensure women's full and effective participation in all levels of decision-making, equal rights to economic resources and land ownership, and access to reproduction health. The project has also shown to be fully consistent with various national policies and strategies, such as the New land legislative framework of 2017, National Food and Security Strategy (Pathways team participated in the review), Malawi Vision 2020 and the Malawi Growth and Development Strategy III (MGDS-III) besides contributing directly towards achievement of the CARE Gender Equality Policy, Care 2020 Program Strategy and CARE's Women's Empowerment Framework.

Pathways anchored other projects by sharing trainings, tools and lessons with them. These projects include the Enhancing Community Resilience Programme (ECRP) in Malawi, funded jointly by DFID, Irish Aid and the Royal Norwegian Embassy, the USAID funded DFAP UBALE project, and the Gates Foundation funded Grand Challenge - Umodzi project (new Care project).

4.1.2 Is the Pathways goal still relevant given the achievements made?

Despite huge strides made, the Pathways goal is relevant considering that more remains to be done to sustain better livelihoods for smallholder farmers in particular women and girls. The project has undergone difficult years characterized by poor harvests because of prolonged dry spells and erratic rains. Economic activities were affected as well since the majority of the beneficiaries rely on crop sales to earn money, being farmers. The remaining local structures (government's agriculture staff and lead farmers) and producer groups of women and men would do well to continue working on the same interventions

to see more growth and impact. Already, Women in producer groups who have been practicing sustainable agriculture technologies and were continuing after the project phased out in December 2018 were optimistic of realizing bumper yields from various crops in this agricultural season (2018/2019), given the above average rains received.

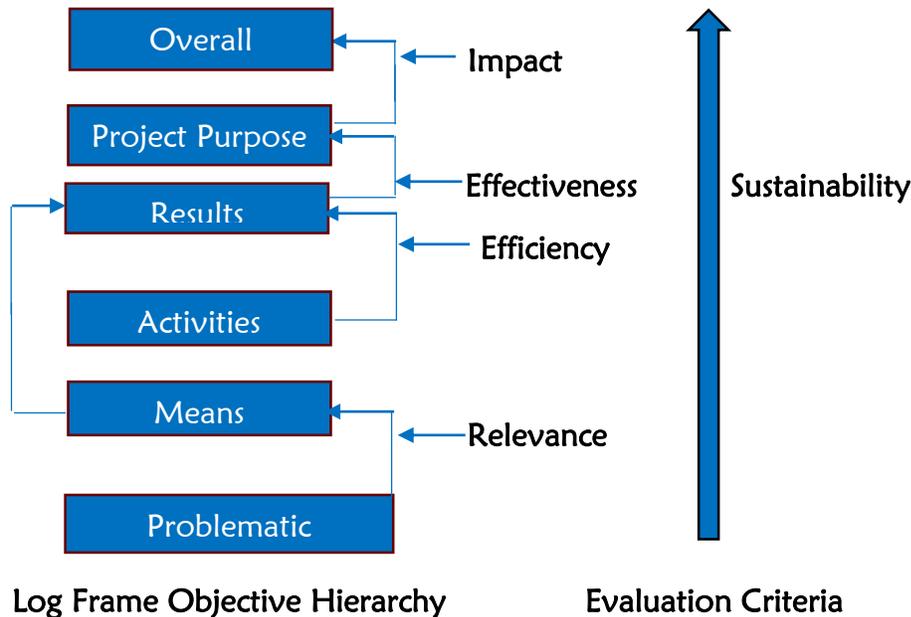


Figure 2: The logic model used by the evaluation

4.1.3 Has this project taken adequate steps to address gender imbalances?

The term “gender” is frequently misinterpreted to mean women and women rights or empowerment. However, gender is not about women, but relationship between women, men, boys and girls. According to the revised National Gender Policy for Malawi (2011) girls and women are disadvantaged and suffer from early and forced marriages, high illiteracy levels, high maternal mortality and various gender-based violence (GBVs). Bearing the existing gender inequalities in mind, gender empowerment has tended to be seen as a process by which those who have been denied the ability to make strategic life choices acquire the opportunity to do so. In many cases, empowerment has been about changing gender relations to enhance women and girls ability to shape their lives.

In this project, a gender balance was achieved by targeting women in particular based on the inequalities they face. Besides dominance in agriculture, like elsewhere in Malawi women are responsible for preparing food and taking care of the family, which further justifies the relevance of targeting women in a project of this nature.

The change levers were well selected and represented areas of relevance to bring change in the lives of poor women farmers.

Box 1: Key levers of change applicable across contexts

Pathways five key levers of change, derived from Pathways processes in the targeted six countries, and are part of the Theory of Change include:

1. **Capacity:** Improved knowledge, skills, relationships, self-confidence and conviction of poor women smallholder farmers
2. **Access:** Improved access to productive resources, assets, markets and appropriate and reliable services and inputs
3. **Productivity:** Improvements in agricultural yield and income through adoption of sustainable and intensified agriculture and value addition
4. **Household influence:** Increased poor women smallholder contributions to and influence over household income and decision making
5. **Enabling Environment:** More positive and enabling attitudes, behaviors, social norms, policies and institutions.

4.2 Project Impact

4.2.1 What is the impact of Pathways?

Pathways has achieved its goal of increasing agricultural productivity and income for 14,282 poor women farmers in sustainable and equitable agriculture systems. Thus, the project has improved food security and rural livelihoods, reduced poverty and empowered women in various ways. These benefits have reached out to a population of more than 71,410 people in the two districts. At the very end, the project surpassed most values for impact indicators as reported by the baseline and first endline studies.

Table 3: Impact indicators for Pathways

Pathways Goal: <i>To increase poor women farmers' productivity and empowerment in more equitable agriculture systems at scale.</i>			
Performance Indicators	Baseline (2012)	Endline 1 (2015)	Endline 1 (2018)
Mean household dietary diversity scores	5.4	6	5.7
Mean women's intra-household food access	5.2	5.7	7.6
Coping strategies index	2.1	5.6	2.8
% households using adaptation strategies to reduce the impact of future shocks	83.9	89.1	92.3
Per capita monthly household income in USD (farm and non-farm combined)	11.6	15.67	29.09
Per capita monthly household expenditures	19.55	27.02	210.76
% households with savings	97	94.2	86.5
% women with savings	96.7	93.3	90.8
Mean asset index	200.1	399.8	237.2
% of women achieving empowerment	20.9	28.8	32.2

4.2.1.1 Impact 1: Increased Food Security

Maize is the main staple food in Malawi. The country's agricultural data show that maize accounts for up to two-thirds of calories available to the average household (Verduzco-Gallo et al., 2014). Given the dominance of maize in household diets, household-level food security is often equated to household-level access to maize, while national-level food security is equated to national maize self-sufficiency (GoM, 2012).

In fact, traditionally experience shows that if rural Malawian have eaten everything other than stiff maize porridge (nsima) for main meals, they literary say 'they have not eaten'.

According to the World Food Programme (WFP), each Malawian adult requires around 150kgs of nsima a year and consider themselves food insecure if they cannot meet this requirement. In real life situation, this figure translates to 24 fifty Kg bags of maize for a family of six people e.g. 2 bags per month.

Pathways targeted poor and marginalized women farmers to increase agricultural productivity and food security. Food security was defined years ago by the World Bank as “access by all people at all times to sufficient food for an active, healthy life.”

The evaluation used women’s intra-household access and household dietary diversity score (HDDS) to assess the food security situation. Even if women have the primary responsibility of preparing food, gender-based power dynamics in the household put them at a disadvantage, making investigations into intra-household food access and consumption all the more important. The assumption in this regard is that food availability and access alone may not guarantee adequate and even food consumption in the household due to many factors.

Traditionally, as already mentioned people follow the patrilineal system in Kasungu and Dowa that involves the woman following and living in the husband’s village after marriage. For this reason, men are seen as the heads of the households and primary decision makers. They are given priority to eat when food is scarce to strengthen the marriage relationships (known as *mkomya* in vernacular Chichewa). Women cook and reserve delicious foods men; for example, giving them meat, eggs or other delicious relish when the rest of the members of household are eating the stiff maize meal (nsima) with vegetables. Second to men are very young children under five years of age. Nutrition education promotes that these children be given nutritious and diversified foods to remain health. Women, girls and older children are thus disadvantaged in intra-household distribution of foods during times of food shortages. Not only do they eat last, but leftovers or totally forgo meals. Varied food distribution means food security and insecurity situations in the same household.

“During hard times, people are worried and easily angered that lead to physical and psychological abuses. Women blame men (who are traditionally considered as heads of families) of not sourcing out food for the family. When men bring in a small amount of food they expect it to last for long and beat women when they discover it has been finished sooner than they anticipated,” one of the beneficiary women explained.

The evaluation found that in the difficult year of 2018 Pathways women and households, harvested enough maize to eat from April to December 2019. This represents a 9-month period of self-food sufficiency and a huge achievement considering that the same women and households were very poor and food insecure before the project started. Food

consumption patterns showed that the majority of them were eating 2-3 meals per day during the period of the evaluation and not worrisome about food shortages in the coming months because they were involved in irrigation farming.

Diets were well diversified as measured by the household dietary diversity score (HDDS) and women's intra-household access (IHA) tools. For example, the evaluation found that women's intra-household access to food increased from five (5.2) during the time of the baseline study to eight (7.6) at the end of the project in 2018 (**Table 4**). Women in female-headed households were also eating two or three times a day and their diets were composed of nine food groups daily (8.8), which represents high dietary diversity and improvements in food security.

Consumption of 0-4, 5-8 and 9-12 food groups mean low, medium and high dietary diversity respectively. Statistical means for household food consumption in **Table 4** show that food consumption as measured by the HDDS remained medium since the time of the baseline study. However, one key finding to note is that the actual number of food groups consumed by households has increased to six (5.7) for households headed by females from five at both baseline and first endline. This result provides evidence about contribution of Pathways to women empowerment and well-being in the districts. Thus, female-headed households have learned 'pathways' e.g. positive coping behaviours to follow and maintain food supplies such as belonging to groups and getting loans from VSLs and participating in irrigation farming. Initially, before Pathways the same households were marginalized, lacked everything and contributed the bulk to the problem of food insecurity.

Table 5 shows specific foods that the households and women were eating. The second endline study found that women had more access to nearly all the 12 food groups than at baseline and first endline. Consumption of vitamin A-rich fruits and vegetables and meat, poultry, fish, eggs and legumes, which are rich in protein and iron, was significantly higher than during the baseline and endline studies. Women's diets also included a variety of cereals as well as roots and tubers, which are good sources of carbohydrates. For households in general, access to different foods remained almost the same with exception of vegetables, fish, tubers, fruits and eggs that showed an increase in consumption.

Table 4: Mean HDDS and women's intra-household

Indicator	Results		
	BL	EL1	EL2
Mean household dietary diversity			
All households	5.3	6.0	5.4
Female-headed households	5.0	5.4	5.7
Male-headed households	5.4	6.3	5.3
Mean women's intra-household food access			
All households	5.2	5.7	7.6
Female-headed households	4.8	5.2	8.8
Male-headed households	5.3	6.0	7.0

Table 5: Access of different food groups by households and women

Indicator	Point Estimate			Point Estimate		
	BL	EL1	EL2	BL	EL1	EL2
Food categories	% of households reporting someone in HH consumed item in 24-hour period preceding interview			% of households reporting someone in HH consumed item in 24-hour period preceding interview		
Cereals	99.4	100.0	97	97.6	98.6	97.2
Tubers	62.8	31.9	38.8	61.8	30.6	85.4
Vegetables	84.6	91.2	93.5	83.4	89.6	96.7
Fruits	33.4	38.7	43.9	31.8	36.6	83
Meat	19.0	25.7	22.8	18.3	23.8	79.7
Eggs	9.1	18.8	22.2	8.1	16.4	77.4
Fish	29.4	38.2	52	28.3	35.4	83.5
Pulses	47.2	62.7	52.3	45.7	60.4	86.3
Dairy	11.3	22.5	16.2	11.3	20.1	74.1
Fats/Oils	38.9	69.2	45.9	38.3	64.8	79.7
Sugars	53.4	57.6	48	52.2	54.4	80.7
Condiments etc.	49.2	43.8	36.4	47.6	40.3	77.8
N	494	432	212	494	432	212

4.2.1.2 Impact 2: Livelihoods Resilience

4.2.1.2.1 Coping Strategies Adopted to Minimize Food Insecurity

The Coping Strategy Index (CSI) is a tool for rapid measurement of household food security and the impact of humanitarian programs. The CSI measures the things people do when they cannot access enough food. People start changing their consumption habits when they anticipate food insecurity. They do not wait until food is completely finished.

The surveys used the expanded context-specific CSI with a set of 8 commonly used coping behaviors. Each coping strategy had five relative frequency categories ranging from “never to “every day per week”.

Overall, the project has minimized the use of negative coping strategies among the poorest of the poor women smallholder farmers. **Table 6** reveals that at baseline 12% of the households had no food or income to buy food in the three months prior to the survey. Although, this figure has shown to increase over the years to 25% during the first endline and 29.1% for this evaluation, most of the strategies employed were mild. These strategies include borrowing food or money to buy food, reducing the number and portions at mealtimes and switching to less-preferred or expensive food. These are modest dietary adjustments that are easily reversible and do not jeopardize longer-term consumption behaviours. Many of the more extreme behaviors that indicate very severe food insecurity and are great sources of shame, such as begging for food, consuming taboo, wild food and famine foods, eating the seed stock for the next season and enduring entire days without eating, were practiced by very few households by the end of the project in 2018 (**Table 6**).

The scale used in the questionnaire was 0 to 4, with 0 being “never” and 4 being “daily.” **Table 6** shows that the average score of the frequency for strategies used was 2.8 and two times lower than the mean score for the first endline at 5.6. This means that, on average, during the time of evaluation households were using various strategies sparingly; once or at most 1–2 days per week.

Taken together, the above results imply that although agricultural productivity has tended to decline over the years, Pathways has contributed to strengthening resilience of households against adopting negative coping strategies even in those hard years with poor yields. Group discussions with women participants showed that instead of using extreme behaviours households get loans from VSLs promoted by the project to address their food needs. Groups involved in irrigation sale crops such as vegetables, tomatoes and fresh maize to vendors to buy staple maize (dry) during lean months.

Table 6: Frequency of coping behaviors for food insecurity

Indicator	Results		
	BL	EL1	EL2
Average score of the frequency			
All households	2.1	5.6	2.8
Female-headed households	1.7	4.2	3.6
Male-headed households	2.2	6.3	2.5
Households that did not have enough food or money to buy food			
All households	12.6	24.8	29.1
Female-headed households	11.6	23.2	37.5
Male-headed households	12.9	25.6	25.4
% of households that used a consumption coping strategy once or more times each week			
Borrowed food or borrowed money to buy food	10.6	20.6	18.8
Relied on less preferred or less expensive foods	8.3	21.0	12.7
Reduced the number of meals or the quantity eaten per day	8.2	16.6	14.1
Skipped eating due to lack of money or food for entire day	4.7	11.3	8.5
Consumed taboo food, wild food, famine foods which are normally not eaten	2.3	6.4	1.4
Restricted consumption of some family members so that others could eat normally or more	3.9	6.9	8.9
Eat seed stock held for next season	5.6	11.1	6.6
Beg or scavenge	3.8	5.5	0

Results in **Table 6** show that female-headed households were more affected by food insecurity and applied a number of coping mechanisms in both evaluations than their counterparts. Interviews with lead farmers revealed that in some cases these households lack land and labour and have low participation in VSL and income to increase agricultural productivity.

4.2.1.2.2 Non-consumption Coping Strategies

Table 7 shows confirms that adoption of negative coping strategies such as ganyu (continuous piece work), withdraw of children from school, unusual sales of household assets, selling firewood and charcoal and migration to other areas, decreased between the endline 1 and 2 due to improvements in people’s livelihoods. Female-headed households were better off during this evaluation and indulged less in negative coping strategies than they did at during the baseline and first endline.

Table 7: Negative coping strategies practiced in the past 3 months to the studies

Indicator	Point Estimate		
	BL	EL1	EL2
IM 1.4: % households adopting negative coping strategies in past 3 months			
All households	8.3	16.9	9.7
Female –headed households	6.2	17.4	8.6
Male-headed households	9.0	16.6	16.5
Percentage of households to utilize specific "negative" coping strategies:			
Pledge or sell labor/crops/livestock in advance	4.9	3.3	4.2
Take a loan with interest	3.9	9.1	11.7
Sell seed stock for next season	2.1	4.0	2.8
Lower school attendance or drop out from school	1.0	2.7	0.9
Unusual sales (e.g., household assets, firewood, charcoal etc.)	0.7	1.8	0.5
Send children away to better-off relatives and friends	0.5	1.6	0.9
Slaughter more animals than normal	0.3	1.6	1.4
Migrate	0.3	0.1	0.0
Reduce expenditure on livestock and agricultural inputs	0.3	1.6	1.9
Sell a higher number of livestock than usual	0.2	1.6	1.4
Reduce expenditures (e.g., health care, education)	0.2	3.3	2.3
Percentage of households to utilize "other" coping strategies:			
Use own savings	2.1	4.0	5.6
Participate in food or cash for work programs	1.0	12.4	5.2
Request local government for assistance	0.5	0.0	0.0
Receive remittances (food or cash) from relatives, friends	2.6	6.7	6.1
Do nothing	1.5	1.6	1.3
Total Sample Size	611	451	208

4.2.1.3 Impact 3: Economic Poverty Reduction

4.2.1.3.1 Household Income and Expenditures

The UNICEF's Economic Report of 2012, the year when Pathways started, reveals that the majority of rural people in Malawi were living below the international poverty line of less than US\$1.25 per day. Pathways designed to reduce economic poverty in the two districts.

Analysis of descriptive data shows that this goal was achieved, evidenced by improvements in the household incomes, savings and purchasing power. **Table 8** shows that the per capita household monthly incomes almost doubled to US\$29.09 (MK20, 973.89) from US\$15.67 (MK8, 681.18) in 2015. Farm income, in particular crop sales, contributed 89.9% of the reported monthly incomes. Soya and groundnuts, which Pathways promoted at scale, were the major cash crops for the households. Non-farm sources of income were mainly VSLs and various income generating activities (IGAs).

Female-headed households, that had lower per capita monthly incomes of USD11.25 compared to US\$20.08 for male-headed households during the first endline study, reported higher incomes (USD29.05) similar to those of households headed by men. **Table 8** shows that the per capita purchasing power and expenditures have increased eight times to US\$210.76 (K151,957.96) from US\$27.02 (K19,481.42), higher among female-headed households (US\$218.46 from US\$22.97 in 2015) than male-headed counterparts (US\$78.99).

The majority of the households spend their monthly incomes on food, agricultural inputs and other non-food items such as soap, clothes as well as school fees and uniforms. Households also used their incomes to buy small livestock, in particular goats and chickens, and run small IGAs.

The evaluation found higher expenditures than actual incomes in both districts, an observation that was also reported by previous studies. The discrepancy is arguably due to under estimation of the earnings, purchases with loans from VSL that were not counted as part of incomes and opportunities to buy goods by credit from the vendors. Access to loans and debts means that Pathways beneficiaries, have gained trust and financial capability seen even by other people outside the project.

Although the current living standards remain below the international poverty line of less than US\$1.25 per day given the per capita household monthly incomes of US\$29.09, taken together the above mentioned achievements point toward a better and more successful future.

Table 8: Per capita monthly household income and expenditures in USD

Indicator	Point Estimate		
	BL	EL1	EL2
Per capita MEAN monthly income			
All Households		15.67	29.09
Female HHHS		11.25	29.05
Male HHHS	11.47	20.08	29.1
Per capita MEAN monthly expenditure			
All Households	19.55	27.02	210.76
Female HHHS	19.36	22.97	218.46
Male HHHS	19.60	28.83	207.24

*The exchange rate for 1 US\$ to Malawi Kwacha was K554 in August 2015 and K721 in October 2018

4.2.1.3.2 Households and Women with Savings

A review of the baseline and first endline studies shows that Pathways found households and women saving their incomes at home and with friends or relatives. Households and women that saved their incomes this way increased from 13% to 20% between the two studies.

Pathways strengthened efforts to organize and train beneficiaries in VSLs recognizing the risks involved in making savings at home or with friends– lack of accumulation of interest and the increased risk of theft. VSLs looked viable because Kasungu and Dowa are rural districts with very few formal financial institution that are in major trading centres away from many villages.

Pathways efforts have yielded positive results in both districts. For example, this evaluation found total savings of MK7, 121,502 (US\$9,877.26) with households headed by females having per capita savings of MK58, 686.27 (US\$81.4) and their male counterparts MK32, 507.89 (US\$45.1) on average. VSL groups were keeping savings for 97.8% of the respondents. Discussions with different people and groups showed that keeping or saving money at home and with friends has become obsolete, reported by only 1.9% of the respondents. The evaluation found that 4.2% had savings deposited at the Commercial Banks, further confirming economic growth and positive behavior change. Pathways women and households made savings to buy agricultural inputs, mainly fertilizer, after sharing out at the end of the cycle. The other reasons were to reserve money for emergencies (72.8%), seasonal hunger during lean months (39.1%), buying livestock and other productive assets (28.3%) and investing in small businesses (22.3%). Profits from the businesses and crop sales were reportedly invested back into VSL.

Table 9: Household and Women Savings

Indicator	Point Estimate		
	BL	EL1	EL2
% of Households with Savings			
All Households	97.0	94.2	86.5
Female HHHS	97.3	93.5	80.0
Male HHHS	97.0	94.6	89.4
% of Women with Savings			
All Households	96.7	93.3	90.8
Female HHHs	97.3	93.5	81.0
Male HHHs	96.6	93.3	95.5

4.2.1.3.3 Mean Asset Index (MIA) Score

The mean asset index score was used to determine the wealth of the households to which targeted women belonged. Results show that various interventions of Pathways have helped women and their household to accumulate wealth through acquisition and protection of productive assets over the past 5 years.

Although **Figure 3** shows that there has been a drop in the MIA score from 400 since the first endline to 237.2, there has been an overall increase in the score from 200 reported by the baseline study. The results also show a rise in the MIA score for female-headed households from 160 at baseline to 282.3 during the second evaluation, although this figure is lower than that of the first endline at 310. Changes in investments and variations in incomes, savings and opportunities account for the differences observed.

In this evaluation, female-headed households had a higher MIA score (282.3) than their male-headed counterparts at 222.8. This result is in contrast with the findings of the first endline study that found a significantly higher score for male (480) than female-headed households at 310. The contrast serves as evidence that women have become more empowered and able to acquire and manage own household assets.

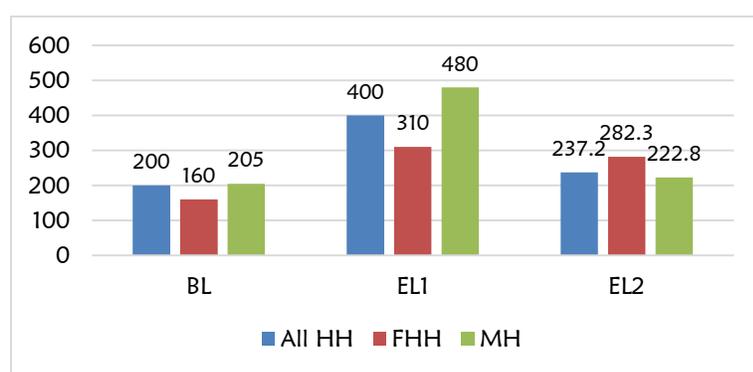


Figure 3: Mean Asset Index Score for the households

4.2.1.4 Impact 4: Women's Empowerment

Pathways found huge disparities between men and women in Dowa and Kasungu. Men were primary decision makers and breadwinners. They had the social power to control land and other resources including money earned by women. Patriarchal norms expected women to be introverts confined to the home, and subservient. Many of them were victims of gender inequalities and domestic abuse such as unequal work load and lack of access to land. In general, women from the two districts were doubtful of their capabilities, lacked voice and had a few expectations for themselves. In addition, they had little access to information and communication. Women's powerlessness was aggravated by their illiteracy, lack of awareness, poor knowledge and skills as well as from their lack of self-esteem and confidence. Poverty was a single major factor exacerbating the situation.

Gender dialogue sessions that Pathways conducted have helped to change cultural norms as well as community and men negative perceptions about women. The evaluation found many evidences of women empowerment as a result of the project. These evidences, based on self-reports by women in descending order of importance, include an increase in household savings (79.6%) and access to credits (73.1%), improvements in agricultural incomes (67.2%) as well as services and inputs (61%), more equitable decision-making between men and women (46.2%), improved crop yields (44.1%) and more equitable distribution of household chores for men and women (38.8%). More than three quarters of the women (81.1%) revealed that they have been empowered to speak up and can now influence important decisions in their families and communities.

Several key elements of the change lever number one, such as improvements in self-confidence, knowledge, skills and relationships, have contributed to these gains.

4.2.1.4.1 Improvements in Self-Confidence

To empower and transform women, Pathways embarked on training to impart knowledge and practical skills that have enabled women gain self-image and confidence. In this evaluation, 92.3% of women agreed that they can resolve household problems if they try hard enough, 83.1% were confident that if somebody opposes them, they can usually find a way to get what they want, while 89.7% said that they always find some way to deal with problems that confront them.

As a result of this confidence, women participating in the project have become successful soy and groundnut growers, chicken, goat and dairy farmers, VSL and irrigation club members and rural entrepreneurs. The benefits of self-confidence and women capabilities were many. In the words of women themselves, confirmed by group discussions with men, women have gained economic independence, identity, equal status and greater freedom. Factors that show greater freedom include 1) reduced work burden because now women refrain from continuous casual piece work they used to do in hard times and concentrate

on own domestic chores and 2) reduced tensions as men now look at women as problem solvers worth living with amicably.

To enhance the confidence and aspirations, Pathways increased women’s access to services and resources like information and communication about agriculture services, financial opportunities, markets and rural development in general. In the household survey conducted, 95.3% confirmed they have the skills and information they need to improve agricultural production and 85.6% confirmed they have access to various resources and services to improve agricultural productivity.

4.2.1.4.2 Improvements in Relationships

Pathways women belong to various female and mixed community groups established by the project. These groups include those for VSL, producers, cooperatives, business schools and marketing (Figure 4). The groups meet regularly to discuss agricultures, socio and economic development issues. In the process, women find a sense of belonging and a platform on which to share problems they could confide to themselves initially, learn other people’s experiences and find solutions together. In these groups, women also share priorities and needs, obtain information that would otherwise be beyond their reach. By January 2019, there was togetherness and amicable relationships at individual, group and family levels, important for well-being of communities at large.

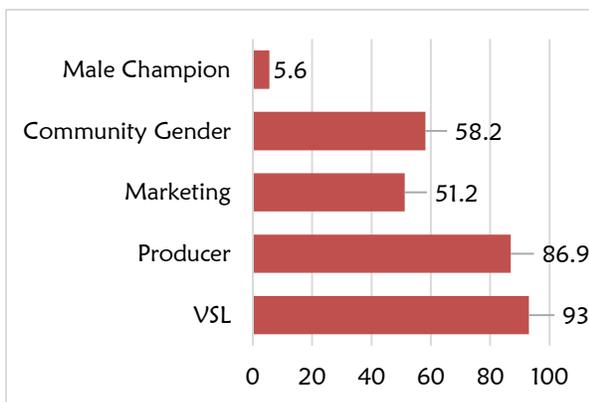


Figure 4: Participation of women in community groups (n=212)

The section above has discussed the impact of pathways and contributing factors related to the different change levers. Below, the report presents results on effectiveness and, to do that, it answers two main questions:

- i. To what extent were the intended project goals, outcomes and outputs achieved and how?
- ii. To what extent did the project reach the targeted beneficiaries at the project goal and outcome levels? How many beneficiaries have been reached?

To respond better to these questions, the section below explains in more detail accomplishments for each change lever by triangulating results from the household survey and narrations by key persons and groups consulted. The format used is based on the M&E framework of the project and the layout followed by the baseline and first endline studies to make comparisons easy and eventually distil performance and areas that need more work.

4.3 Effectiveness of Pathways

The effectiveness of Pathways was assessed to be very good. During implementation, the project empowered voluntary local structures to do most of the work on the ground for the betterment of their own communities and, as a consequence, operated within the allocated budget as agreed upon with the donor. Similarly, project management adhered to a number of sound principles and administrative procedures to avoid corruption and abuse of donor's money. No cases of misappropriation of funds were reported. Coordination, cooperation and communication among stakeholders were efficient, evidenced by joint implementation and monitoring of the activities. All interventions were implemented in an efficient and cost effective manner e.g. demonstration plots, nutrition education and gender dialogue sessions. The Pathways approach of using the five change levers to address problems facing poor women smallholder farmers synchronized well and have delivered desired results – securing livelihoods.

By end of the project in December 2018, Pathways registered a number of outcomes, both intended and unintended, after implementing various activities efficiently and effectively.

The project had 3 major outcomes as follows:

1. Increased access to productive assets, services, resources and markets:
2. Increased women's capacity (skills, knowledge, self-confidence)
3. Increased productivity (including profitability and nutrition outcomes).

An analysis of the evaluation and project narrative reports shows that Pathways has met or exceeded a high proportion of output and outcome targets it set to achieve. The section below begins with a narration of the specific and key intended outcomes of Pathways under each change lever before outlining the unintended outcomes.

4.3.1 Change Lever 1 – Capacity: Improved knowledge, skills and relationships, self-confidence and conviction of women smallholder farmers

Table 10: Capacity Change Lever Results

Performance Indicator	Baseline (BL) 2012	Target (TA)	Endline (EL) 1 2015	Endline (EL) 2 2018	% Achievement (EL2 vs TA)
% women participating in formal and informal groups	98.7	100	100	100	100%
% women holding leadership positions in formal and informal groups	53.1	63.8	72.3	88.7	139%
% respondents confident speaking about gender and other community issues at the local level					
▪ Female headed	53.7	69.8	77.2	92.2	132.1%
▪ Male Headed	73.3	80.6	87.4	94.7	117.5%

4.3.1.1 Women Participation in Groups

By December 2018, Pathways established 1,528 groups with a membership of 14,282 smallholder farmers of which 13,882 were women, representing a 97.2 percent participation. Village Savings and Loans make 1020 of these groups and the rest (508) are producer groups. The groups aim at sharing knowledge, skills and experiences, making farming a business, learning new methods of farming in relation to the changing climate and weather, encouraging one another to develop a culture of saving money through VSLs after crop sales and promoting gender equality in all activities. Pathways employed the FFBS approach to train these groups and ensure they achieve their goals.

This approach used demonstration plots, gender dialogue sessions, field days, exchange visits, nutrition and food displays as well as gross margin analysis and marketing mix to make lessons practical, interactive and easy to understand. CARE Malawi innovated various gender transformative tools and used them to bring gender balance, namely the fictitious village, man box, sex and sexuality, cost of gender based violence and person and things. The project also used the six food groups in nutrition sessions, the access and control (Cash-Flow), and principles of marketing tools.

Since farmers (women and men) have been organized in groups, it has become easier to demand and access extension services from NGO and government extension officers. Working with groups of farmers on demonstration plots also increased the coverage and uptake of modern agriculture techniques. It helped the farmers to share ideas, and enhanced team work skills and the ability to see issues from different perspectives. It also gave them the chance to learn from each other.

Interviews with producer groups showed that, through group trainings smallholder women farmers have acquired the necessary skills and use correct plant spacing, certified seeds, proper and timely weeding and construct box ridges to conserve soil moisture. Coupled with increased participation in village savings and loans (VSL) and various IGAs emanating from the savings and loans, targeted women and households have become food secure and wealthier. Traditionally, in the rural context of Malawi wealth is determined by possession of land, livestock and households assets, in particular a bi or motor cycle, television, radio and solar powered electricity. Ability to acquire farm inputs such as fertilizer, improved seed and pesticides, and agricultural equipment (e.g. treadle pumps, plough etc.) also qualifies one to be better off.

In this evaluation, there were many cases in which women testified about acquisition of different assets using money from VSL and crop sales. **Table 11** shows various assets that women reported to own. Many of them had more interest in buying inputs for agriculture and livestock especially chicken goats and pigs, than other assets.

Margret Maseko of Tadala VSL group from Mwenye Village in Dowa had this to say, “I have managed to buy 3 piglets this year after receiving savings from VSL in December 2018. It is not only me who benefited from the proceeds. Our chairperson received MK30, 000 when we shared-out the money and bought a goat and one bag of fertilizer.” Agata Michael from the same group received MK50, 000 and bought 2 bags of fertilisers and non-food basic needs while Gladys Joseph, the lead farmer in the group, went home with MK60, 000 and now has 3 pigs.

Maligeta Dominic joined Tikondane VSL group in the same district in 2012 and singled out 2015 as her most successful year when she received MK110, 000 and used it to buy two pigs, fertilisers, food and other basic needs. Maligeta has 15 pigs now after selling some of them over the years to pay school fees for her two children and address other family needs.

VDC members in an FGD in TA Dzoole added that the benefits of livestock to women farmers are two-fold: an investment where farmers can benefit from sales of livestock and livestock products, and access to animal manure they use in rain-fed agriculture and irrigation farming. VSLs and other economic activities are also benefiting women from

female-headed households in many different ways. For example, interest earnings and small loans from the groups are helping these women meet children’s school needs as well as buy food and other basic necessities as illustrated by this 46 year old widow keeping six children in TA Kaomba:

“I was very poor and lacked everything. Life changed after I joined the VSL group in December 2015. I have bought a goat and two chickens and can take care of my children. Two of these children are orphans and one is a grandson. I am able to buy basic needs and send all of them to school.”

Together, increased incomes, savings and assets have made women and their households more resilient to respond and withstand natural shocks and disasters, such as drought and floods. As already explained in the above section, communities and households have devised better ways of coping up with hunger than selling productive assets they need in future to maintain their livelihoods.

Table 11: Assets owned by women farmers and their households

Productive Capital or Assets	Number (Average)
Agricultural land (acres)	1.6
Large livestock (oxen, cattle)	10
Small livestock (goats, sheep)	20
Chickens, ducks, turkeys, pigeons	13
Fish ponds or Fishing equipment	0
Farm equipment (non-mechanized, e.g. hoes, sickle)	5
Farm equipment (mechanized e.g. tractors, mills, etc.)	1
Nonfarm business equipment	4
House (and other structures)	14
Large consumer durables (TV, sofa, air conditioner)	6
Small consumer durables (radio, cookware, iron etc.)	1
Cell phone	4
Other land not used for agricultural purposes	4

4.3.1.2 Women Holding Leadership Positions

Table 12 above shows that Pathways has increased the number of women in leadership positions in formal and informal groups from 53.1% at baseline to 88.7%. After the baseline study the project set the target for this indicator at 63.8 and surpassed it by 39% at the end. Since the number of women in the project was 13,882, the above percentages mean that 12,314 had leadership positions of some kind. Besides the VSL and producer groups the project established, Pathways women outclass other women and assumed leadership positions even in other community groupings that did not belong to the project. Interviews conducted showed that these women led or deputized the chairperson, treasurer or secretary. These community groups include religious and village groups such as village development committees (VDCs), Village Civil Protection Committees (VCPC) and Village Natural Resources Management Committees (VNRMC) that promote soil conservation, agroforestry and reforestation. Communities have entrusted Pathways women with various positions recently owing to their abilities to talk sense openly and confidently in public.

“Before the project religious and civil leaders were men in most of the villages. People had no trust in women because many of them lacked leadership capabilities. But now even women from female-headed households have become good leaders not only for their households but communities as well,” women chiefs in Dowa revealed.

The household survey found that more than three quarters of women from female-headed households (78.3%) were in leadership positions. This figure was getting closer and closer to the percentage of women from male-headed holding similar position (90.6%).

4.3.1.3 Women’s Ability to Speak in Public

By the end of its lifespan, Pathways surpassed the targets for the women confidence outcome indicator. Overall, 93.9% of women expressed confidence that they have become much more able to speak in public than at the beginning of the project. The evaluation found no significant differences in the ability to speak in public without shyness between women from male (94.7%) and female (92.2%) headed households. These results represent gains that the project has been making over the years. For instance, only 77.2% of women from female-headed households and 87.4% of their counterparts from male-headed households demonstrated this ability during the first end-line conducted in 2015. Baseline figures were much lower at 53.7% and 73.3% for these two types of households respectively. Discussions with individual and groups of women in both districts showed that they were very comfortable speaking up on gender issues, women’s rights, access to agricultural resources and community infrastructure (e.g. markets, roads and

water supplies). The section after **Table 12** discusses elements of change lever two that have also contributed to Pathways success.

Table 12: Trainings conducted by the project as part of capacity building

Training	2014			2015		
	M	F	Total	M	F	Total
Develop and add FFBS tools in the FFBS manual	-	-	-	3	7	10
Project Staff meetings	-	-	-	3	7	10
Designing a common gender indicator framework (Staff)	-	-	-	2	3	5
Field tour /Days	30	20	50	2	8	10
CBTs TRAININGS	-	-	-	56	34	90
Community Buyer – Seller forums with Apex	-	-	-	24	8	32
Training new VAs in VSL methodology	-	-	-	23	20	43
Financial literacy	-	-	-	69	36	105
Training of FFTs in seed multiplication (ICRISA)	144	34	178	4	4	8
Refresher training in crop estimates (FFTS)	30	20	50	56	34	90
FARMER TRAININGS	2,308	709	3,017	-	-	-
4 Food processing and utilization sessions	4,436	693	5,129	894	124	1018
Gross margin analysis and Marketing mix	3,546	887	4,433	3,546	887	4433
FFBS plot learning	3,454	260	3,714	4,684	754	5438
Farmers provided with technical support on farm	-	-	-	2,513	1709	4222
Mandela cork refresher community training	-	-	-	1,280	488	1768
Facilitated gender training in communities	7,193	2,464	9,657	4,775	1,059	5834
Farmers who stacked soy beans	-	-	-	1,245	981	2226
Community monthly meetings	4,732	2,461	7,193	-	-	-
Marketing reflections Meetings	1,570	183	1,753	-	-	-
Inventory Credit	3,165	791	3,956	-	-	-
Participatory performance Tracker (PPT) for PG executives	105	665	770	-	-	-

4.3.2 Change Lever 2 – Access: Increased access to productive resources, assets, markets and appropriate / reliable services and inputs for poor women farmers

Table 13: Access Change Lever Results

Performance Indicator	Baseline (BL) 2012	Target (TA)	Endline (EL) 1 2015	Endline (EL) 2 2018	% Achievement (EL2 vs TA)
% of women accessing agricultural inputs (seeds) over the last 12 months	78.1	92.5	86	94.4	102.1%
% of women accessing output markets to sell agricultural products over the past 12 months	39.9	59.9	63	96.2	160.6%
% of women with access to agricultural extension services in the last 12 months	26.4	65	82	99.1	152.5%

4.3.2.1 Access to Land

Land is a fundamental asset for agriculture. Women empowerment if not coupled with interventions to increase access and control of land resource may have very limited impact. Under Outcome 1 Pathways designed to increase access to productive assets, services, resources and markets after discovering at the very onset that the land tenure system for the two districts did not favour women in any way.

An excerpt from the project’s M&E framework document reads, “Women are disadvantaged in their access to inputs, technology, finance and markets and these constraints are most pronounced among the poorest and most vulnerable and are compounded by additional structural and social barriers to empowerment. Discriminatory attitudes and practices including a male-dominated land tenure system, greater responsibilities for household and subsistence labor, limited control over inputs and income, lower wages, and restricted access to higher value crop production and agro-enterprise development opportunities place women in an inequitable and disadvantaged position. Women are often allocated the poorest land for household food crop production and female-headed households are particularly vulnerable due to their limited labor power and typically smaller plots.”

These inequalities were echoed by the women themselves in this evaluation to reflect on how their life was in the past.

“Men used to monopolize land use and made all decisions about crops to grow. They were prioritizing land for Tobacco production and considering a waste to allow women to cultivate crops, such as Soy and Groundnuts. These were in fact women crops because we were insisting to be growing them, although we had no land. Now, men have seen the benefits of such crops and allow women to cultivate them. The change has come following a series of gender dialogues and after men realized that tobacco, which requires intensive inputs, labour and other resources, is a crop of the past. It is increasingly becoming less popular in view of the anti-smoking campaigns worldwide. We can tell you that decisions on which crops to grow are now made jointly between women and men at household level. Many times we start allocating land for all the crops and finish with tobacco.” Many smallholder farmers have actually stopped growing the crop,” FGDs in Mwenye and Kamwana in TA Dzoole.

4.3.2.2 Women’s Access to Agricultural Inputs

Table 14: Collective input purchase by Pathways groups of farmers

Input		Year				Sources
		2012/13	2013/14	2014/15	2015/16	
Soya	Seed (Kg)	14,494	9,236	9,533	38,309	Seed Co. Pannar seed,
	Value (Mk)	5,058,565	2,743,200	2,762,850	19,154,500	Farmers Union of Malawi (FUM)
		(\$14,052)	(\$6,096)	(\$4,605)	(\$26,239)	Chitedze Research, IITA ,
	Inoculant (sachets)	7,465	7,065	2,036	300	Limbe leaf, alliance one, agro dealer, Clinton
	Value (MK)	746,500	1,413,000	1,934,200	215,650	Foundation, Agro Input Supply Limited (AISL)
		(\$2,074)	(\$3,072)	(\$3,224)	(\$296)	
No. of farmers	1,674	1,600	2,111	3,285		
Ground nuts	Seed (Kg)	10,901	14,647	12,730	42,248	NASFAM, seed co. Chitedze , Pannar seed and FUM
	Value (MK)	6,540,600	8,788,200	8,274,500	29,573,600	FISP , ICRISAT , and
		(\$18,168)	(\$19,104)	(\$13,790)	(\$40,512)	various agro dealers
	No. of farmers	1,798	2,233	2,131	2,766	
Total farmers	3,472	3,833	4,242	6,051		

There are many benefits that targeted households have realized after giving women land to grow crops. The money obtained address real issues at home unlike when the same money was in the hands of men. Across all the FGDs, women and men reported that reluctant households to put women in front of decision making on agriculture and food security are generally worse off and have lagged behind. In most of these households men are still concentrating on growing tobacco and making low returns.

Pathways designed to increase access of poor women farmers to agricultural inputs from 78.1% recorded at baseline to 92.5% at the end. Analysis of household data showed that by December 2018, Pathways surpassed the above-mentioned target by 2.1% (Table 14). A large majority of women had access to these inputs in the 2017/2018 agricultural season. Main inputs that the project promoted are certified seeds, organic fertilisers, pesticides and inoculants. In descending order of importance, according to results from the household survey sources of seeds and fertilizer were agro-dealers and input suppliers (78.9%), the government’s FISP program (26.3%), cooperatives and producer groups (19.7%) and local producers of compost manure (8%).

Table 15: Progression of seed pass on system over 3 years

Year	Initial Seed distributed (Kg)	Seed redistribute d from seed bank (Kg)	Number Beneficiaries	Total harvest (Kg)	Total repaid (Kg)	Seed remained with farmers (Kg)
2014/15	1,600	0	160	13,880	2736	11,144
2015/16		2736	273	23,734	4095	19,639
2016/17		4095	409	28,630	6154	22,476

Routine narrative reports show that on their own farmers purchase certified groundnuts and soy seed from ICRISAT, IITA, NASFAM and Saju agro dealers. Farmers have also started purchasing inputs collectively as producer groups or cooperatives. Table 15 shows collective inputs for groundnuts and soy over the project life. The project embarked on the seed banking and multiplication system to enhance access and availability improved seed to the targeted farmers and communities (Table 15).

Box 2: Sele cooperative of TA Dzoole in Dowa

Sele is a newly established cooperative with a membership of 110 smallholder farmers (66 women and 44 men) from 3 farmer field business schools (FFBS). The farmers come from six producer and VSL groups: Tadala, Kuwala, Kasiyandiwo, Chifundo, Maula and Sanga. The following are the objectives of the cooperative: to enhance production for easy access to markets, improve the bargaining power of individual producer groups, ensure product quality by promoting competition among members and reduce production costs through collective purchasing of agricultural inputs. CARE Malawi in June 2018 assisted Sele with training on how to run a cooperative. Members contribute K3000 as membership fees and buy minimum shares of K5000 to allow the cooperative carry out its activities smoothly. In the current season (2018/2019), Sele has purchased 528kgs of Soy seed from Clinton Hunter Foundation at MK500/kg and distributed 12kg to each member to grow. The cooperative estimated that this seed can give a yield of 100kg and each member will be required to bank 17kg as seed for the next season. Sele has also acquired an addition of 1,318kgs of certified soya seed from SeedCo through contract farming agreement and members got 50kgs each to return 150kgs from an anticipated potential yield of 1000kgs. Others organizations that have shown interest in the cooperative are GIZ, NASFAM and ACE. Sele's plans for the future are to build a warehouse for bulking of produce and seed banking, own a tractor to increase hectares cultivated and strengthen irrigation and livestock farming to boost production.

4.3.2.3 Output Markets for Selling Agricultural Products

According to the results from this evaluation, Pathways has succeeded in increasing access of women farmers to markets. A total of 96.2% of the women said they had market outlets for their agricultural produce compared to 39.9% and 63% recorded at baseline and first endline studies, respectively. More than three quarters of the women (75.6%) sold their produce individually to local markets and traders, mainly the vendors. Interviews with women revealed that vendors offer several benefits over other market outlets. It is easy for the villagers to sell their produce to vendors because they are readily available, go directly to the villages soon after harvesting time, allow price negotiation and transport the produce themselves. Nevertheless, women and producer groups complained about lower prices and inaccuracy of scales.

Besides vendors, Pathways linked farmers to markets of relevance in the country to which they have also been selling agricultural produce. These companies are Agricultural Commodity Exchange for Africa (ACE), Auction Holdings Limited Commodities Exchange (AHCX), ADMARC, ETG, Atipatsa Trading, Sun Seed Oil, Capital Oil, NASFAM, Trans Globe Produce, Export Trading, Peacock Seed, Farmers World and EXAGRIS Africa LTD.

These markets determine prices of crop produce by considering the following:

- i. Government minimum prices
- ii. Market price reference
- iii. Volume of the produce
- iv. Quality of the produce
- v. Whether or not farmers meet the costing of packaging, warehousing and transportation to ferry commodities to the identified markets using FFBS financing funds

Due to low yields realized in the 2017/2018 season, close to two thirds of the women farmers (63.7%) sold their produce individually to the vendors to address pressing needs, 31.1% used the bulking system and 5.2% were engaged in contract farming.

Farmers who followed the bulking system have seen the benefits.

“In the past, we used to sell our crops to vendors as individual farmers. After receiving marketing knowledge and skills from the project, we now put our produce together and negotiate prices from buyers. Many times we sell the produce at prices we set that buyers simply accept because they are buying in bulk. This approach is helping us to get a single large sum of money at once and plan better for our families, Christina Cosmas of Tadala producer group said.

Table 16: Collective sales and revenues from groundnuts and soy

Year/Crop	Groundnuts			Soy		
	Harvested (Kgs)	Sold (Kgs)	Value (MK)	Harvested (Kgs)	Sold (Kgs)	Value (Mk)
2013	126,839	6,600	21,667,020	500,020	125,803	63,865,570
2014	300,899	88,468	62,302,638	305,420	126,484	3,612,843
2015	266,580	493,512	67,634,565	473,553	323,935	60,967,373
2016	720,666	720,916	179,505,480	423,169	423,169	120,522,875
2017	778,336	592,814	140,380,117	1,117,281	943,586	133,897,786
2018	-	-	-	-	-	-
Total	2,193,320	1,902,310	471,489,820	1,278,993	1,942,977	382,866,447
Total		US\$	342,908	Total	US\$	408,603

4.3.2.4 Contracting Farming and Marketing

CARE Malawi arranged contract farming with ICRISAT and other private organizations that has benefited 195 producer groups between 2014 and 2017. Contract farming helped farmers to access 12,040 kgs of improved groundnut seed varieties through which they have realized US\$34,233 from the sales as illustrated in **Table 17**.

Table 17: Contract farming trends over a period of 4 years

Contract farming trends over a period of 4 years							
Year	Farmers	Seed Received (Kg)	Cost Price (\$)	Seed Loan (\$)	Sold Collectively (Kg)	Selling (\$)	Total Amount (\$)
2014	15	1,600	0.83	1333	7,445.00	0.67	4963
2015	62	6,000	0.9	5417	9,643.00	0.81	7768
2016	83	3,440	1.18	4061	10,117.00	1.28	15631
2017	35	1,000	1.96	1958	4,558.30	1.29	5871
Total	195	12,040	4.87	12,769	31,763.30	4.05	34,233

Box 3: Terms of contract between Pathways and ICRISAT

- ICRISAT to provide foundation Sinjiro seed variety on loan to farmers which will be repaid after harvesting
- Farmers will sell the produce to ICRISAT at a price of MK920 per Kilogram
- Land size should be not less than one acre per farmer
- ICRISAT and CARE staff will provide seed production trainings
- ICRISAT will inspect the farmer fields to check crop stand
- ICRISAT will not buy poor quality, broken, ungraded and unsorted seed from the farmers.

4.3.2.5 Women’s Access to Agricultural Information and Extension Services

One area where Pathways has shown an outstanding performance is the activity on increasing women’s access to agricultural information and extension services. Initially in 2012, before Pathways started in December, only one quarter of the women (26.1%) had access to some kind of agricultural information and extension services. By December 2018, this figure rose to 99.1%, meaning that nearly all women had access to information and extension services they need to succeed in agriculture. CARE Malawi partnered very well with ICRISAT, LUANAR and the government’s Ministry of Agriculture (MOAIWD), and have disseminated various messages on agriculture. Farmer-to-farmer extension services

and demonstration plots have also displayed various techniques for modern agriculture that women have learned and been applying in their gardens to realize the gains registered.

Patricia Mankhusa is one successful lead farmer from Dunda producer group in Dowa who has benefited a lot from certified seeds and linkages with ICRISAT. In 2016, Patricia got 70kgs of groundnut seed from ICRISAT and harvested 420 pails from which she sold 400kgs at K2, 500 and make one million kwacha. Patricia used her savings from VSL and other crop sales to top up this money and buy a motor vehicle, which she still uses when she needs transport to do agriculture and business activities. Patricia has also a motor cycle she bought earlier in 2015 from soy sales. In the same year, she bought two goats that have risen to 13, thanks to Pathways. For Patricia, all her food, income and school fees come from farming and VSL.

4.3.3 Change Lever 3 – Productivity: Improvements in yield and income through adoption of sustainable and intensified agriculture practices and value addition

Table 18: Productivity Performance indicators

Performance Indicators	Baseline (2013)	Target (TA)	End-line (2015)	Endline (EL) 2 2018	% Achievement (EL2 vs TA)
Increase in Agricultural yield in crops supported by Pathways (kg per hectare)					
▪ <i>Groundnuts</i>	801.9	1046	794.5	566.61	54.2
▪ <i>Soya</i>	711.8	993.75	762.8	727.69	73.2
% women adopting at least three improved agricultural practices	46.8	49.72	69.8	92.5	185.9%
% women farmers adopting improved storage practices	26	27	25	55.2	204.4%
% women farmers practicing at least two postharvest practices	61.3	68.97	73.6	76.9	111.5%
Net income of women from agricultural production and/or related processing activities (USD)	163	179	252	264	147.5%

4.3.3.1 Agricultural Yield

With very good rains and crop husbandry, adoption of soil fertility improvement techniques and the use of improved seeds, 1ha gives utmost 13,000 Kgs of maize, which translates to 250 fifty Kg bags. For the per capita 0.57ha cultivated in the 2017/2018 season, Pathways farmers ought to harvest at least 7,000 Kgs of maize (140 bags) and have enough surplus for sale as well.

However, poor weather conditions and erratic rains led to low agricultural productivity and poor yields in this season. As a result, farmers harvested 16 fifty Kg bags of maize on average. The season was one of the worst in the country's history. Rains started late towards the end of December 2017, stopped and never came for the whole of January and resumed in the last week of February 2018 after most of the crops had already wilted and damaged heavily by fall armyworms (FAW).

Women and households that did not participate in the project realized little (three bags) or no yields at all. Factors contributing to better yields for Pathways farmers, the majority of whom are women as already stated, include 1) adoption of sustainable agriculture practices 2) the use of planting of hybrid, high yielding and early maturing varieties of crops 3) better market prices because farmers sell their produce as a group that motivates them to increase hectares of land cultivated.

As part of sustainable agriculture, the majority of the women applied compost manure (87.2%), practiced crop rotation (82%), constructed soil and water conservation measures (68.5%), such as box ridges, contour ridges and bunds across the slope, and used certified hybrid seeds (66.8%).

Table 19 shows that agricultural productivity was the lowest in the 2017/2018 season for Pathways beneficiaries. Comparatively, the 2014/2015 and 2015/2016 were difficult seasons characterized by poor weather conditions and, as a consequence, farmers realized lower yields than those registered at baseline.

Table 19: Per capita agricultural productivity of maize, soya and groundnuts

Crop	Baseline	Endline 1	Endline 2
Maize	1850	1790	526.61
Soya	712	795	727.69
Groundnuts	802	763	566.61

These production shortfalls, besides poor rains and prolonged dry spells, point towards the need for agricultural extension staff and lead farmers the project has trained to continue with messages on agriculture, targeting specifically new and youthful farmers that will be

joining the groups in future. Farmers culturally till land in Malawi, drawing from earlier messages by the Ministry of Agriculture (MOAIWD) that full tillage of the soils and ridging improves water infiltration, aeration as well as easy germination of seeds and root development. Sustainable agriculture's contradictory concept of minimum tillage therefore needs on-going promotion to gain full adoption.

4.3.3.2 Adoption of Improved Agricultural Practices

Sustainable agriculture practices that Pathways promoted to boost agricultural production in the wake of climate change, dry spells and erratic rains are:

- Crop rotation and diversity
- Minimum tillage to reduce soil erosion
- Mulching of crops in the field
- Making box and contour ridges
- Planting of high yielding, drought tolerant and early maturing crops
- Making and application of compost manure and organic fertilizers
- Growing cover crops to conserve the soil and water
- Applying integrated pest management (IPM)
- Postharvest Management (PHM) of Crops
- Integrating crop and livestock production
- Adopting natural resource management practices.

The household survey of this evaluation assessed knowledge and application of these practices and found satisfactory results. For example, the project has increased the adoption of at least three agricultural practices by women smallholder farmers to 92.5% from 46.8% at baseline and 69.8% found during the first endline study. The main practices adopted are compost manure making and application (80.2%), crop rotation (75%), soil erosion control measures (63.7%), improved seeds (61.8%), mulching (55.2%) and minimum tillage (44.8%). Field visits by the evaluation team showed evidences of women farmers practicing sustainable agriculture to maximize yields.

Mulching was liked because it helps to improve soil fertility and structure, conserve moisture in the soil, prevent weed from growing that helps reduce labour requirements (locally known as *mtayakhasu*) and eventually result in bumper yields. Paradoxically, actual adoption of this technology was low for the following reasons based on self-reports by the farmers: 1) mulching results in water logging for clay soils in times of heavy rains, 2) the remaining mulch hosts mice that eat fresh and dry produce, 3) it is difficult to reserve enough crop residues because the mulch is destroyed by mice hunters, livestock and fire and 4) it is laborious to do the actual mulching and planting thereafter. Tadala group of Dowa added that in the 2017/2018 season Ministry of Agriculture instructed them not to

mulch their field because mulching was associated with breakouts of insects and worms that feed on crops as they grow.

An analysis of household survey data showed poor adoption of other modern agriculture practices such as the use of cover crops to conserve the soil and water (21.6%), intercropping (28.7%) and irrigation technologies (12.2%).

CARE Malawi's USAID funded Drought Mitigation through Irrigation and Conservation Agriculture Extension (DICE) and other two projects worked in the same communities and had strong components on irrigation. Pathways therefore designed to build on the gains registered by these projects. More efforts are needed in irrigation and the other areas of low performance mentioned above to accelerate uptake and impact.



Photos above: Different agricultural technologies and crops promoted by the project. Double planting of soy is liked most because it means double yields to the farmers. Like with mulching, soils and moisture are conserved as well. Weeds are shocked and this reduces the need for intensive weeding.

4.3.3.3 Postharvest Handling and Storage Practices of Women Farmers

Food insecurity and hunger in rural Malawi are not due to poor harvests alone. Smallholder farmers lack the appropriate knowledge and technologies on storage and post handling practices. The Government of Malawi (GoM) estimates post-harvest losses at 12.5 % of the total food grains harvested and as high as 30 per cent for perishable crops such as fruits, vegetables, roots and tubers. According to the Food and Agriculture Organization (1997), post-harvest crop losses occur at five stages in the farm-to-fork food chain: 1) during harvesting, such as from mechanical damage and spillage, 2) during postharvest handling e.g. drying, winnowing and storage (insect pests, rodents, rotting), 3) during processing, 4) during distribution and marketing (wholesale, supermarkets, retail and wet markets), and 5) during consumption (e.g. good quality food fit for consumption being discarded).

Post-harvest losses regardless of the stage have serious implications for farmers, consumers and the national economy.

Under change lever number 3, Pathways carried a series of trainings to reduce postharvest losses through proper storage of crop produce. Results from the evaluation show that the project has achieved this goal.

Project women harvested crops on time, in April and May every year. Agriculture lessons have taught them crops left standing un-harvested diminish in quantity and quality through losses and attacks by insects, birds and rodents. Grains and legumes harvested early become moldy due to high moisture content.

After harvesting, the project has trained women farmers to shell, sort, grade and store grains and legumes well. The percentage of women farmers practicing at least two of these postharvest practices was 76.9% as illustrated in **Table 18** above.

Regarding storage, the survey found that the percentage of the women farmers who have adopted improved practices has doubled (55.2%).

The common way of storing grains and legumes was packing in polythene bags and applying actellic insecticide to avoid weevil and insect infestation. The bags were stored in dry and well ventilated places within the house.

Otherwise, women and households relied on circular traditional granaries (nkhokwe in vernacular Chichewa) to store maize on the cob with sheaths, and groundnuts. Modern storage structures like cribs and metal silos were generally very scarce. Likewise, only 3.8% of the women reported using Purdue Improved Crops Storage (PICS) bags to store grains and legumes. Several factors prevented them from using methods.

After receiving training, farmers were supposed to meet the cost of storage on their own. A 50kg PICS bag costs MK900 (US\$1.25) and the 100kg size MK1, 500 (US\$2.1) compared to the ordinary ones at MK100-K150, meaning that one can buy 9-10 bags with same money meant for a single PICS bag. In addition, the local supply of modern storage structures, such as PICS bags and metal silos, is limited. For example, the only retail stores where farmers can buy PICS bags and iron sheets for making metal silos in the two districts are Farmers' World and Agora stores located in the main trading centres far from most villages. In contrast, farmers can buy ordinary bags everywhere, even in the same villages where they reside and, similarly, they make traditional granaries without buying any materials.

Besides this, farmers have not been realizing maximum yields to store for a longer period of time, which arguably negated the need for metal silos and PICS bags. These silos and bags can store grains and legumes safely for eight to 12 months without the produce being

damaged by insects. There is no use of excessive pesticides as is the case with ordinary bags. Once farmers see for themselves these benefits, adoption will definitely increase.

4.3.3.4 Nutritional Gains

In its M&E framework, Pathways designed to reduce child underweight and, because of the above-mentioned achievements, it has obtained positive results.

For example, the latest Malawi Demographic and Health Survey (MDHS) of 2015/2016 found lower rates of child underweight in both districts than those it reported in 2010 (Table 20). More impact has been made in Kasungu, where CARE Malawi works in three TAs, than Dowa with one TA. Given that CARE targeted poor communities that contribute the bulk to the problem and since it is one major humanitarian organisation assisting the people on the ground, it is logical to conclude that project interventions, such as agriculture and food security, crop diversity, nutrition education on the six food groups and cookery demonstrations, succeeded in reducing undernutrition. The majority of women also demonstrated very good knowledge of cookery and nutrition unlike at baseline when most of them grappled even to mention the six food groups for Malawi (Staples & Cereals, Animal foods, Legumes, Fats and oils, Vegetables and Fruits). They described six food groups to be about well-balanced, nutritious and diversified diets.

Groundnuts and soy, which the project promoted, have increased food availability and diversity in the districts. The following recipes have been taught to the masses:

1. Processing raw soy into various products such as soy milk, soy-corn flour blends (Likuni Phala), various snacks for children and bakery products e.g. *chikondamoyo* and fritters.
2. Simple nutritious meals prepared with groundnut flour (*nsinjiro*) e.g. *futali*, relish (vegetables and small fish), *chiponde* (butter) and the green banana, moringa and groundnut flour dish in one pot. Women interviewed in the evaluation said the aim is to meet four food groups at one eating session e.g. staples and cereals (green bananas), vegetables (moringa) and legumes as well as fats and oils (groundnut flour). The project promoted the *nsinjiro* variety of groundnuts deliberately to be used for fortification of various traditional foods.

Each nutrition demonstration included cookery practice, tasting as well as take-home copies of the recipes to foster practice and health eating. As a result, young children were fed appropriate complementary foods in the project communities that has contributed to reductions in undernutrition.

Annual narrative reports show that in 2014 Pathways conducted eight nutrition sessions (cookery demonstrations and six food groups), reaching out to 5,129 farmers (4,436

female and 693 male). In 2015, the project carried out four food processing and utilization sessions, reaching out to 1018 people (894 female, 124 male). In 2016, nine FFBS groups participated in these sessions where a total of 1,428 (1209 female, 219 male) attended.



Photos above: Project women and men learning on new recipes during cookery demonstrations (Source: Project Report of 2015 & 2016).

In summary, CARE Malawi has worked in Kasungu and Dowa consistently, implementing various projects that altogether have contributed to the positive nutritional outcomes. Even in 2010, child underweight was lower in both districts when compared to national figures (Table 20). Some of the most powerful projects that Pathways acknowledges are DICE, MAZIKO (Nutrition Foundation for Mothers and Children), We-Rise and the current SANI (Southern Africa Nutrition Initiative). For example, the SANI project has distributed seeds for soy, groundnuts, beans and Bambara as part of crop and dietary diversification, both of which contribute to nutrition well-being.

Table 20: Rates of child underweight in Dowa and Kasungu

Year	Dowa	Kasungu	National
2010	11.9	11.6	12.8
2015	9.1	7.1	11.7

As part of nutrition work, Pathways established 729 backyard gardens involving 3,999 household members to deal with challenges of poor feeding, malnutrition and other nutritional deficiencies. The gardens were a ready source of vegetables in particular mustard, rape, lettuce, pumpkin and bean leaves, egg plants, okra, tomatoes and onions; most of which were used during cookery demonstrations besides eating at home.

Pathways reiterated on the need to embrace the multi-mix principle of preparing meals, which is about combining different food groups either in one pot (e.g. *futali* or porridge enriched with different foods such as groundnut flour, mashed fruit, pounded vegetables

and/or minced meat) or different dishes to achieve diversity. However, project narrative reports show that mixing too many ingredients to achieve the six food groups resulted in meals with unusual appearance, taste and flavour. Pathways revised its recipes to meet both nutritional and sensory needs of the targeted communities.

“We have been trained to use local foodstuffs available in our communities to cook nutritious foods using the six food group model. By following this, we eat well and have reduced rates of child undernutrition. Previously, most children were malnourished and you could see them easily in most communities not necessarily because people had no food, but due to lack of the necessary knowledge and skills on cooking and child feeding. Now we know that with our own indigenous food we can achieve adequate nutrition for our children and families, thanks to the project [Pathways],” Gladys Joseph, Tadala FFT.

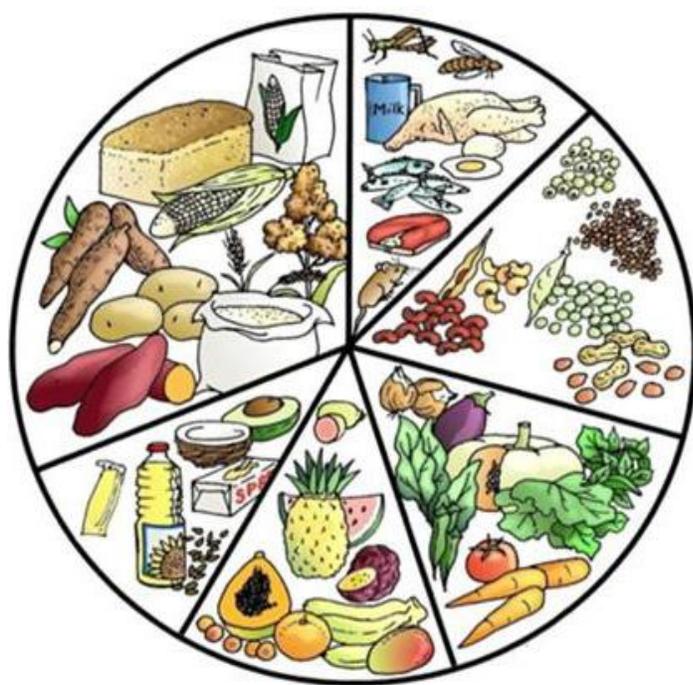


Figure 5 to the left: The Malawi Six Food Groups

4.3.4 Change Lever 4 - Household Influence: Increased poor women farmers’ contributions to and influence over household income and decision making

In the words of women themselves, confirmed by group discussions with men, by transforming agriculture and rural incomes the project ‘put cash’ directly in the pockets of women; thus, empowering them to make decisions on how to utilize it. Women now make independent

decisions on the types and quantities of food to buy, cook and consume. Men no longer go to the kitchen and dictate what the wife should buy and cook or how she should rationalize the food, according to focus group discussion conducted.

Table 21 shows that Pathways women also contribute and influence decisions on land utilization, what types of crops to grow, quantities to sell (to which markets and when), agricultural inputs and productive assets to buy. Men only dominate when it comes to decisions about purchases for large household and agricultural assets.

Joint decision making has contributed to wealth accumulation and huge reductions in gender inequalities. Many women and households participating in the project described themselves as much better off compared to their counterpart villagers. The inclusion of men in gender dialogue sessions has come with it great results. Men have generally stopped gender inequalities and started looking at women as partners in agriculture and development that is cementing marriage bonds and creating an enabling environment for women to succeed.

The project administered the cost of Gender Based Violence (GBV), sessions in gender that helped men and women understand the repercussions of engaging in gender based violence. The sessions stressed on things men do against women and foster adoption of positive attitudes and behaviors. The project recorded improvements in both districts.

A good example is the reduction in the work burden for women after men have started doing some of the activities at home. FGDs with women and men in both districts revealed that activities which men now do proudly, which they could not carry out initially, are cooking, fetching water, carrying hoes to and from the garden, sweeping, bathing and feeding children, washing clothes for the wife and children, helping children in the morning during school days as well as going to maize mills and hospitals with children.

All these activities were for women. No man could dare do them because they could be laughed at and called all sorts of funny names. Culturally, communities also considered such men bewitched by their wives. Main “feminine” farm work that Pathways men now do include carrying hoes during ridging, shelling maize and groundnuts and winnowing. Women on the other hand help men in fencing backyard gardens and construction of granaries and animal houses.

Positive attitudes and behavioral change in men have resulted in huge reductions in gender-based violence (GBV) against women. Men have become honest, accountable and supportive to their wives. The project sensitized women to report any cases of GBV to police, chiefs, Village Civil Protection Committee (VCPC) and other people with authority in the community, such as religious leaders.

To illustrate, FGD participants in TAs Mwenye and Kaomba in Kasungu revealed that “Men were cruel, self-centred and inconsiderate. They used to look at women as workers in the home and beat them in process. The other victims of GBV were adolescent girls and boys. There were cases of early and forced marriages for adolescent girls and boys, child labour in tobacco estates, dropping of girls and boys from school to work for food or money in times of hunger. Pregnant mothers were doing hard work, for example farming and fetching firewood, and husbands could beat them at times for trivial reasons. Many of such

cases remained unreported to avoid a defaming situation, or save family honor. Since we have been equipped with knowledge on what to do when we experience cruelty and inhuman behavior, the perpetrators have stopped. With the training we received from CARE, we have formulated by-laws implemented by our chiefs to punish all wrong doers. Now women are equal humans and not “objects” as was the case in the past.”

As an example, one woman in the FGD narrated that she was doing small income generating activities within the community and participating in VSL to generate income for her family. One day, the husband came back home drunk and started beating and blaming her for prostitution. They simply regarded the case as a family matter.

Village Headwoman Florence Mandowa of Kasungu added that, “In the past, women would be beaten by their husbands for very simple matters such as going out to chat with friends. Men wanted women to be always at home or garden. Things have changed for the better. Men have seen the benefits of allowing women to do other things. Women now have the time [due to reduced workload and behavior change in men] to visit friends and relatives, go to the market, church and other social gatherings or to do income generating activities without making their husbands angry.” Similar sentiments were echoed by different FGD participants in Dowa.

In 2014 alone, Pathways conducted 188 community-wide gender dialogue sessions and reached out to 9,654 people, 7,193 female and 2,461 male. The innovative approach of using drama and role plays during the dialogue sessions helped women and men internalize root causes, the severity and consequences of gender problems and devise solutions together. In particular, the “Person and Things” tool, a role-play about unequal power dynamics and literal objectification of women, was the most effective tool because it depicted real gender issues of concern in the two districts. CARE Malawi invented the tool after discovering the “Person and Things” behavior particularly in Kasungu where men were considering themselves as humans and treating women like objects. Participants for group discussions in the district had the vernacular term for it “Munthu and Chinthu”, meaning that the mistreatment of women was deep and widespread.

Through drama and role plays, women were encouraged to use decision making strategies like politeness, understanding of husbands’ concerns and tolerating of different perspectives by others to show them that gender equality is not about rudeness, but improving relationships and supporting one another for the betterment of all.

Table 21: Household Influence Performance Indicators

Performance Indicators	Baseline (2013)	Target (TA)	Endline (2015)	Endline (2018)	% Achievement (EL2 Vs TA)
% women with sole or joint control over agricultural income and expenditures	55.5	70	57.2	68.1	90.9%
% women with sole or joint decision-making and control of household assets	53	75	72.9	76.8	102.4%
% women with sole or joint decision-making and control over agricultural assets	67	70	76.2	80.8	115.4%

Box 4: Pathways beneficiaries' description of fellow villagers not in the project

- i. Very poor, food insecure and lacking everything including basic needs such as soap, sugar and salt
- ii. Beggars of food, money and clothes
- iii. Defaulters of loans
- iv. Absentees during sensitization and development meetings
- v. Perpetrators and culprits of gender inequalities
- vi. They are ignorant about climate smart agriculture, although a some are now coping without understanding well the technologies
- vii. They eat poor and monotonous diets even in times of food security due to lack of nutrition education.
- viii. They withdraw children from school to work in tobacco estates to rescue the family from hunger. Children go to school without eating.
- ix. They cannot afford to buy fertilizer and certified seeds
- x. They are the ones who do casual piece work (ganyu) in our gardens

4.3.5 Change lever 5 - Enabling Environment: More positive and enabling attitudes, behaviors, social norms, policies and institutions

4.3.5.1 Collaboration with Government and Agriculture stakeholders

CARE Malawi made careful selection of partners in areas where it had less competitive advantage and worked very well with them on the ground. Given that these organisations were already long-standing partners, the project benefited from their knowledge and understanding of the women and agriculture issues in the local context of Malawi. Overall there is a high level of satisfaction from CARE with the work delivered by the partners and, despite unforeseen challenges the project faced in its 5 years of implementation, all planned activities were implemented. The results that Pathways has registered through these collaborations are presented in Table 22.

Table 22: Collaboration with Government and Agriculture stakeholders

Year	Organization	Contribution
2014	IITA and ICRISAT	Contributed 721Kgs of groundnuts and 272 Kgs of soy seed for demonstration plots. Pathways complemented with 136 Kgs of soy seed, 272 Kgs of fertilizer, and 136 Kgs of Gypsum that was used in 63 FFBS demonstration sites. For each demonstration site Pathways was providing 2kgs maize seed, 5kg NPK and 5kg top dressing fertilizer, 1kg soy seed, 1 packet inoculant and 2 or 2.5kg groundnut seed, according to lead farmers interviewed.
	Community leaders	Gave 3.02 hectares of land for demonstration plots.
	Agriculture Extension staff from MOAIWD	Provided training to farmers participating in the FFBS and linked them to similar capacity building initiatives in addition to ensuring that they benefited from inputs and services that government was providing.
2015	Australian NGO Cooperative Program (ANCP) & CARE Malawi	Economically empowered 5771 beneficiaries (5169F and 576M) by focusing on business management, financial literacy, and trained 1674 people (1373F and 254M) on the use of ICT to access financial and marketing services and formal linkages through Australian Aid.
2014-2016	Total Land Care	Trained farmers in conservation agriculture
	DAPP	Conducted adult literacy classes
	CCJP	Promoted human rights by establishing a victim support center, although they were not present in all the impact areas.

4.3.5.2 Engaging Key Business Support Service providers

In this project, besides linking farmers to markets of relevance CARE Malawi worked with financial institutions to increase the pool of capital and agriculture-specific financial products available for women smallholder farmers through the established groups. In 2014, CARE Malawi signed a memorandum of understanding (MOU) with Airtel Malawi and Opportunity International Bank of Malawi (OIBM) to enable women farmers, who initially lacked information, open accounts and access agricultural loans.

In 2015, Pathways linked 272 VSL groups to OIBM bank and Airtel Money services that resulted in 243 groups opening bank accounts and the rest (29 groups) having Airtel mobile money accounts. The groups saved a total of MK17, 253,368.00 at OBM and MK3, 228,445.00 with mobile money accounts. In addition, 2,069 (1,810 female and 269M) individual farmers opened accounts as well.

By December 2016, 246 farmer groups had accounts with OIBM and other banks through which they saved MK49,175,577 and 6 VSLs accessed group loans worth MK1, 800,000 (US\$2, 926.83). The groups paid back the loan on time within six months and got the second one of MK3, 000,000 (US\$4,878.05) payable in 12 months. The twenty nine groups, composed of 890 farmers that had accounts on mobile banking with Airtel money, saved MK75, 000 (US\$121.95) in the same year. The loans provided capital to the groups for agriculture and business activities. VSL linkages with the banks also created opportunities for farmers to access other services that Pathways could not provide. For instance, with the knowledge acquired project groups and individual farmers have started utilizing services from other banks, mainly the Malawi Savings Bank, National Bank, New Building Society and First Merchant Bank. **Figure 6** shows that the beneficiaries shared a total of K3, 756,435 over the project lifespan as a result of these efforts.

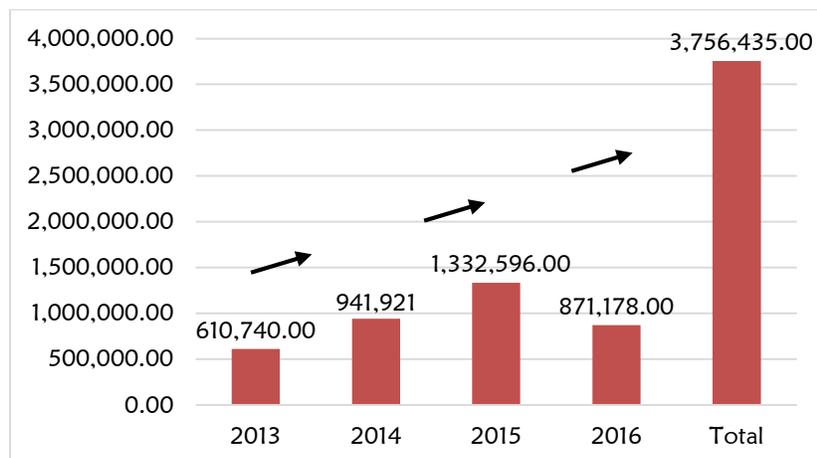


Figure 6: VSL share out money

Box 5: Intended outcomes of Pathways: Summary and Highlights

- Increased food availability, access and consumption for poor households and communities, having improved yields.
- Increased number of months with self-food sufficiency / the reduced period of food dependency and external assistance.
- Improved access to agricultural information, extension services, inputs and credits
- Strengthened capacity of lead farmers and agricultural extension staff in different areas of sustainable and modern agriculture.
- Women empowerment through gender equality, access to land and increased agriculture and nonfarm incomes
- More equitable decision-making, communication and distribution of household chores between men and women.
- Improved confidence in rural women to speak up about community issues in public
- Increased awareness of gender equality and the repercussions of GBV
- Men relieved as sole bread winners
- Improved diets and nutrition
- Reduced use of negative coping strategies and the sale of assets to buy food
- Enabled households to avoid doing continuous piece work (*ganyu* in Chichewa) and instead concentrate on their farms to harvest own food
- Enabled adolescent girls and boys to refrain from child labour and stay in school
- Increased resilience to natural shocks and disasters after households started practicing sustainable agriculture and natural resources management

4.3.5.3 Unintended Outcomes of the Project

Over the past 5 years of its implementation, Pathways has achieved a number of unintended positive outcomes. This section summarizes the main outcomes of the project, which include the following:

1. Formation of larger farmer groups that were initially not part of the design. A good example is the coming together of producer groups in TA Dzoole of Dowa to form Sele Cooperative led by Kamwana producer group. A number of groups visited had similar intentions to increase quantities of commodities during bulking and attract large-scale seed companies and markets.
2. Scaling up of positive behaviours and attitudes to other villages where the project had no interventions. Behaviour change in men on perception of women, cultural modifications and modern methods of agriculture learned by Pathways women have all spilled over to other villages where CARE was not operating, owing to the benefits seen. For example, although not included in Pathways, other villagers are farmers as

well and have started copying good agricultural practices (GAPs) the project has been promoting e.g. box ridges, zero tillage, mulching, compost manure making, Sasakawa (e.g. planting of one maize seed per station), double line planting for soy, correct ridge and planting spacing in groundnuts, and pit planting method. According to interviews with non-project farmers, pit farming is worth emulating and applying because it improves crop production by holding moisture enough to serve crops from dry spells.

A non-beneficiary woman, Maria Dafutala, who has been following what women in the Khamalidyetsa FFBS of Dowa do said, *“With most land being infertile, it is difficult to have bumper yields without fertilizer. We have been relying on pit planting and compost manure making that the project [Pathways] has taught us. The manure is giving us many returns since we cannot afford to buy fertilisers. Maria added that she does not regret for not being one of the beneficiaries because she has equally benefited. Pit farming and application of compost manure have increased my maize production from no harvests two years ago to 12 bags this season [2017/2018].*

While Maria Dafutala did not understand much that manure improves soil texture, retention of moisture and fertility, she represented other farmers that have benefited indirectly even without the project knowing. In the months and years to come, as part of growth producer groups need to incorporate such willing and already motivated farmers to expand coverage and benefits.

The farmers made the manure, which were ready for use within 21 days, by mixing three 15 litre buckets of dung with ash, crop residues or debris from fertiliser trees and 10 litres of water; again making livestock production valuable.

With manure added, pit planting involved growing 18 seed for groundnuts 37.5cm between the lines and for maize 4 seeds are recommended based on interviews with farmer field business schools.

3. An increase in access to markets that has been benefiting all villagers alike. Discussions conducted revealed that producer and FFBS groups do not exclude non-beneficiaries when it comes to bulking and marketing of agricultural produce. This helps them (the latter) to sell produce at higher prices as well than if they could deal with buyers as individual famers.

Table 23: Prices of crop produce in the 2017/2018 season

Produce Prices per KG 2017/18 Season		
Crop	PGs	Non Beneficiaries (when the sold produce on their own)
Maize	150	100
Groundnuts	250	220
Soy	310	250

4.4 Sustainability of Pathways' Activities

The evaluation looked at sustainability as the likelihood of whether activities and benefits of Pathways will continue after cessation of funding in December 2018. The results showed that sustainability is one of the areas where CARE Malawi and its partners have made an outstanding performance. To begin with, the project design was inherently about local capacity building and entrusting agriculture extensions staff, lead farmers and village agents to implement activities on the ground.

This bottom-up approach has enabled beneficiary communities and poor women farmers understand core objectives of Pathways and eventually lead in the whole process. Capacity building interventions carried out from the very beginning have given them the necessary knowledge and skills for transforming agricultural systems in a more sustainable and equitable manner.

It is evident that by relying on Ministry of Agriculture's extension staff and lead farmers (FFT) to disseminate agricultural extension services, the project has left 'fellow community members and villagers' to lead by example in showcasing new agricultural technologies and urge other farmers to continue applying them. Lead farmers act as peer advisors, communicating knowledge to and answering questions from fellow club members. Trainings and knowledge offered have contributed a certain level of readiness, consciousness and awareness about climate change and disaster risk reduction in addition to enhancing indigenous knowledge on ways to reduce them and mitigate their effects.

To ensure sustainability of the FFBS approach and continuation of community-based extension services, before phasing out Pathways identified and linked 63 well performing FFTs with motivation, knowledge and good communication skills to the remaining NGOs, Ministry of Agriculture and other government ministries to continue working in areas of community mobilization as well as crop and livestock production. In total, the project worked with 90 FTFs (53 women and 37 men) in both districts.

To this end, sustainability and scalability of Pathways are guaranteed by several factors: 1) the institutionalisation of activities in the daily routine work of the agricultural extension staff, lead farmers and local community volunteers, 2) increased community and household resilience to disasters through sustainable agriculture practices, 3) accrued benefits and successes that motivate beneficiaries to continue with project activities, 4) the replication of activities by neighbouring villages not targeted by the project, and formation of new VSL and farmer cooperatives, and 5) existing linkages of women smallholder farmers with local agro-input suppliers, financial institutions, and markets that will continue to provide an enabling environment for agricultural production and marketing.

Interviews with respondents in both districts showed that the project's approach was widely applicable and that there was potential for wide learning and application. The flexibility and adaptability of the Theory of Change is well recognized. Given the interconnected nature of the five levers of change, focusing even on a limited number of them can result in a huge impact.

By December 2018, the Pathways approach of organizing farmers to work in groups had already been taken up by other NGOs and private agriculture companies that have started using CARE groups as entry points. Good examples of these organisations are:

1. The Ministry of Agriculture (MOAIWD), with support from the MDRRP (Malawi Drought Recovery and Resilience) project, which provided 75 goats to Khamalidyetsa group in Dowa in March 2018. Seventeen farmers have benefited, with each one of them receiving 5 goats (4 females and 1 male). More farmers will benefit because the programme follows the pass-on approach. The group attributed receipt of the support to the fact that they had already been organized and MOAIWD, a partner in the project, had prior knowledge of them.
2. Land 'O' Lakes that has distributed dairy cows to producer groups from Makala and Mphote villages in TA Dzoole of Dowa
3. ICRISAT for providing soy seed to Sele Cooperative in the same district as part of contract farming.
4. In Kasungu, Jesuit Refugee Services (JRS) (an international Catholic organization) and FAO have provided training, seeds and fertilizer, 'Find your Feet' distributed goats while Salvation Army has given Goats, Boreholes and fertilizer to the CARE producer groups.

4.5 Knowledge Generation

4.5.1 Lessons and Best Practices from the Project

This section presents lessons that Pathways has learned over its 5 year lifespan. These lessons, which relate to the design and implementation as well as the approaches and partnerships used, are relevant and worth sharing because they can help to inform the design and implementation of similar projects in future.

Pathways change levers have demonstrated to be very effective in empowering women to transform agriculture and need to be replicated at scale in future

Pathways used a mix of change levers and interventions to secure rural livelihoods in Kasungu and Dowa. A straightforward lesson the project has learned is that ‘to transform agriculture, engage women and provide them with the necessary capacities and access to information, extension and financial services, and inputs.’ An enabling and supportive environment, which responds to individual and groups of farmers, is key to success. In this project, CARE Malawi unlocked land for women and addressed negative attitudes, behaviors, social norms and gender imbalances to provide such a supportive environment. A change lever that the project struggled with to achieve is *productivity*. It became eminent that improving agricultural yield and income is not only a matter of adopting sustainable and intensified agriculture practices as designed, but also receiving favorable weather conditions and rains. Issues of weather and rains were rather extraneous to the project, but CARE Malawi implemented multiple natural resource management and climate change interventions to minimize their current and future effects.

Working with farmers clubs and schools made acquisition of inputs, resources and services easy

As already stated, Pathways established and organized farmers into 1,528 groups. Several VSL groups formed a Producer Group (PG) and a number of producer groups made a Farmer Field Business School (FFBS). Farmer-to-farmer trainers (FFT) led the groups and the majority of them were women. Working with groups helped input, extension, financial and market service providers to deliver services easier than if they were to work with individual farmers. In addition, women found power in numbers to harness various indigenous skills existing in the members; enhance advocacy and negotiation power; improve financial accessibility and access to land and other productive assets; boost social capital and investments as well as improve market access and eventually reduce poverty.

Box 6: Benefits of working in groups from farmers perspectives

- i. Exchange of ideas, knowledge and experiences
- ii. Learning modern ways of farming together to improve productivity and food security
- iii. Reminding one another of following sustainable agriculture practices
- iv. Selling commodities at once in bulk and negotiating prices
- v. Guiding each other on prices as well as when and where to sell our produce
- vi. Better prices of agricultural commodities mean improvements in income generation
- vii. Encouraging one another to be active members of all the groups to maximize benefits Money from crop sales support VSLs, businesses, irrigation farming and vice-versa.

Involvement of men was critical to attaining equitable agricultural systems

Pathways has also learned that efforts to transform agricultural systems in Malawi require an active involvement of local leaders and men in patriarchal cultures as primary decision makers. In Dowa and Kasungu, the Chewa culture dictate roles of men and women, favouring the former in many ways. Women are burdened with household and farm work. They ought to participate in all farming activities, do all domestic chores and cook as already presented in the preceding sections. They are housekeepers and care takers for men and children at home. Yet men are primary decision makers for all these tasks such as deciding on land utilization, what crops to grow, foods to be purchased and cooked in the household, assets that the household require and so forth. By engaging men and communities in gender dialogues to reflect on these gender disparities, Pathways has changed behaviours and attitudes of men towards women. Men have started to regard women not only as wives, but partners in agriculture and development as well as important bread winners and decision makers. Since the majority of men in the targeted communities have become champions for change, Pathways will continue to rely on them as ambassadors and advocates for gender equality.

Multi-sectoral partnerships and collaboration helped the project to succeed

In Malawi, Pathways was a multi-sectoral and complex project implemented through various partners, local, national and international. For example, CARE relied on ICRISAT to lead in providing technical and agronomic support on value chains for groundnuts and soy. LUANAR generated research data and made recommendations on sustainable agriculture interventions to be implemented to prevent and mitigate the effects of climate change, shocks and disasters on rural livelihoods. The majority of planned agriculture activities were implemented in a satisfactory manner and have made a significant contribution. ICRISAT went a step further and has started providing certified seeds to

producer groups under contract farming. Sele cooperative in TA Dzoole of Dowa is a good example of one large group of smallholder farmers that received the seeds in the 2018/2019 season as explained in preceding sections of the report. In addition to the need for establishing more cooperatives, activities in the years to come should focus on training farmers on functions of such collectives, group dynamics, record keeping and financial management to reap more benefits.

4.5.2 Best Practices for Pathways

Overall, Pathways' comprehensive design to address problems affecting poor women farmers created work overload for FFTs, VAs and women beneficiaries themselves. The project was extremely fortunate in the devotion showed by its team and beneficiaries that worked very hard throughout its lifespan. The lesson learned on work pressure creates room for future projects to look into how best to engage local trainers like FFTs and VAs who work on voluntary basis.

The other best practice achieved is the change in cultural norms, attitudes and behaviour by men after being engaged by the project. FGDs conducted revealed that men have changed in the way they perceive women. Many of them spoke of helping women to do what initially they considered as 'women activities.'

"Initially, if a man could be seen doing activities such as cooking, sweeping in the house and feeding children other villagers thought the wife has given him cultural herbal concoctions to disturb his mind so he can be doing women activities. Now they know we are changed men with gender knowledge. Things are working well in our households when we do these activities together. Other men who initially were laughing at us have started copying and doing the same for the benefit of their families as well." [Different groups of men said this when asked what other men think and say about them].

Another best practice seen in men is the change in the way they were looking at tobacco as a must and 'holy' crop. Women testified that men now understand the importance of growing other crops and allocating land, mainly for soy and groundnut, which were initially considered 'women' crops. These crops can be used for both food and sale. Farmers negotiate prices and can sell them on spot unlike tobacco which is sold centrally and continues to fetch lower prices in view of global campaigns to minimize production and utilization.

4.5.3 Key Challenges in Putting Pathways Theory of Change into Practice

Pathways in Malawi suffered from delayed funding of activities due to prolonged logistics at times that contributed to infrequent visits of staff to project areas and affected progress of particular activities in some years. The other challenges that the project faced were:

Change Lever 1: Some of the tasks in the capacity building activities required certain levels of literacy and numeracy in beneficiaries which the majority of beneficiaries did not have because these attributes were not among the criteria for selection. Women were therefore struggling to grasp knowledge and skills when for tasks that required these attributes e.g. keeping records and measuring of field sizes. The project continued to link them to adult literacy classes and selecting a few with some education to be activity leaders.

Change Lever 2: Access to inputs was affected by high prices and long distances to suppliers since the project targeted the poorest farmers in far-flung marginalized areas of the districts. Concerning the government's farm input subsidy program (FISP), budgetary constraints and rampant corruption were major problems that preventing well-deserving poor farmers from benefiting. Similarly, some unscrupulous agro dealers reportedly cheated smallholder farmers by adding foreign matter to fertilizers or selling poor quality seeds and tools.

The other challenge under this change lever is failure to comply and pay back the cost of seed to ICRISAT in the contract farming of the 2015/2016 season by some farmers. This lack of compliance resulted in frustration of the supplier and reluctance to distribute contract seed in the subsequent years. Pathways planned and negotiated with its Partner, ICRISAT, on how to strengthen the system and prevent such defaults from occurring. These efforts resulted in the resumption of the services by ICRISAT.

Besides this, lack of warehouses for bulking of commodities resulted in farmers and buyers under or over estimating quantities available for sale, which was eventually affecting negotiations for better prices. Since the commodities were with individual farmers themselves, they kept on selling at lower prices to vendors to address immediate and pressing needs. Delays in the onset of markets operated by large-scale buyers also complicated the situation. Farmers always complained about lower prices and the use of inaccurate scales whenever they sold agricultural produce to vendors.

The establishment of new cooperatives composed of several PGs and FFBS will help address the problem since they have been trained and are prioritizing contract farming. ICRISAT has already started to trust and engage the new cooperatives in contract farming as stated above that it has resumed services.

Change Lever 3: Productivity and yield per hectare continued to decrease over the years following poor weather conditions and rains due to the combined effects of climate change and environmental degradation. Not only did dry spells affected rain-fed agriculture, but also made rivers for irrigation farming dry. This means the Pathways has no specific results-based evidence to suggest vividly that improved practices have contributed to increased yields per hectare. The only evidence that can be relied on are comparisons of yields with between beneficiaries and non-beneficiary farmers (not controlled in any way by the project).

In addition, due to prolonged droughts and poor weather conditions in difficult years of the project most farmers had problems contributing regularly to VSLs because they were reserving the money to buy food and other basic needs. The project continued to strengthen communities' resilience to natural disasters and promote sustainable agriculture practices that included the use of improved and early maturing varieties of crops, compost manure and fertilizer and pesticides to fight an outbreak of fall armyworms.

Mulching, fertilizer and inoculants faced low adoption due to labour intensiveness and cost constraints. The project continued to promote the practices through demonstration plots to produce evidence-based results to farmers and foster adoption.

Change Lever 5: Routine monitoring exercises by the project showed that people who participated in gender dialogues were mainly women and men belonging to collectives. Women, men, adolescent boys and girls from the general public refrained and were left out. These are the ones who kept on frustrating converted men and male champions when they do gendered roles and support their wives, saying they have been given love portions. The project continued to carry out community-wide sensitizations to accelerate coverage and positive behavior changes.

The main barrier to changing gender norms, attitudes and inequalities is culture. For example, Pathways realized that the patriarchal attitudes and biases about family life were deep rooted not only men, but also ingrained as normal/ usual behavior by women themselves (some), having grown up in the two districts. These deep-rooted perceptions and thinking need time to change, making continuation of the gender dialogues with men, local leaders (custodians of culture) and women from the general public unprecedentedly necessary.

5.0 Conclusions and Conclusions

Pathways spent 100 percent of its lifespan when this evaluation was completed in January 2019. Its foremost achievement was its 5-year presence in the same districts where CARE Malawi has been working for the past 20 year since 1998, consolidating the gains achieved. The uniqueness of Pathways though, which previous and other projects have failed to achieve, is the direct focus on women farmers giving them voice and the ability to challenge traditional perceptions and cultural norms regarding their capacity and roles. Key challenges the project faced in putting its Theory of Change (TOC) into perspective are well summarised in this report. But one major lesson the project has learned is that strengthening capabilities, access to inputs, services and markets, agricultural productivity, household influence, environments for growth is the most viable way of empowering poor women smallholder farmers and making long-lasting impacts in their lives. The project's TOC has proven effective and can be applied at scale elsewhere in projects of similar nature. Many things and actions remain though to maximize impact and benefits in the years to come. Since the project has come to a non-renewable end, success in future is contingent upon the commitment by local structures and organisations the project has left to scale up tried and tested interventions following the five change levers.

5.1 Recommendations

1. Continue promoting access to, and ownership of land for agriculture by women and even the youth, who consider agriculture as arduous and an occupation for old people, to enable them practice sustainable agriculture, water and soil conservation and natural resource management in a bid to cope with the current and future changes in climate and weather patterns.
 - i. Continue to support Pathways approaches and collectives to address challenges affecting women farmers in a sustainable manner.
 - ii. Food security in the two districts and Malawi is defined in terms of maize. Enhance agricultural diversification further away from maize, groundnuts, soy and tobacco to make communities more resilient to food insecurity and the effects of natural shocks and climate change. Encourage farmers to grow drought resistant, fast maturing and high yielding varieties of other staple crops such as cassava and sweetpotatoes e.g. promote biofortified varieties high in vitamin A to help address micronutrient deficiencies at the same time.
2. Value chains for groundnuts and soy need to be developed further. The evaluation found complaints about quality of inputs, prices and measuring scales used by the vendors, short periods of six months for payment of loans taken by smallholder

farmers, and lack of compliance with contracts by both farmers and buyers among other problems. Farmers lack appropriate and affordable methods for storing already harvested produce that worsening the food insecurity through post-harvest losses.

- i. Partner with the private sector to continue making access to inputs easy and ensure availability of low cost and a proliferation of financial and marketing services.
 - ii. Success in the future also depends on the development of support systems at different stages of the groundnuts and soy value chains, stressing on quality assurance systems starting from the provision of inputs, extension and financial services to transportation and marketing of commodities to ensure the whole process incentivizes farmers well.
 - iii. Strengthen the seed multiplication and banking system, and contract farming with seed companies to provide farmers with a ready source of seed for the next season.
 - iv. Aim to reduce post-harvest losses from 30% to less than 10% by encouraging modern methods of storing to maximize the benefits of increased agricultural productivity.
 - v. Promote value addition and agro-processing of agricultural commodities beyond mere cookery demonstrations to improve the gross margins and maximize returns on farmers' investments.
3. Pathways provided one treadle pump and watering cane to each producer group with access to water sources. The treadle pumps and cane distributed are in use, but require a lot of human energy to pump water particularly now that water sources are increasingly drying up due to below average rains received.

To revitalize irrigation farming, boost productivity and supplement rain-fed agriculture, in future encourage producer groups to consider acquiring and using portable solar pumps, which can draw up to 8000 cubic litres of water per hour with little effort.

Annex 1: Schedule for data Collection

Group type	FGD	KII
VSLA	6	4
Lead Farmers /FFT	1	1
VA	3	1
Procuder groups	3	2
AEDO	2	1
ADC/VDC	2	2
FFBS groups	3	2
Marketing Committees	3	2
	23	15

Work Plan for Monday, 21 January 2019

Group Type	FGD	KII	Date	Time	District	Group / Individual	
Lead Farmers / Farmer to Farmer Trainers (FFT)	1	1	Monday 21 Jan 2018	8.30	Dowa	Boston Dzonzi (FFT)	Scolastica Phiri to organize fellow FFTs from TA Kaomba (8- 12 people) for FGD
Village Agents (VA)	3	1		8.30	Dowa	VA for Chibvunguti, Tiyanjane, Umodzi, Tayamika, Mwaiwathu, Tazindikila and Tiyesere (KII)	Maggie Nyrenda (Mobile 0999 102 885) from TA Kaomba to organize fellow 8-12 VAs for FGDs Mada Chikho from TA Mwase (Mobile 0997 462 699) to organize

							fellow 8-12 VAs for FGDs
Village Savings and Loans Associations (VSLA)	6	4		8am 10am 12 pm	Dowa	Wednesday VSL Groups under the following FFTs Efiness Jonathan Mwatitha Charles Magret Chitemera	
Producer Groups	3	2		10.30 1.30-3.30 4.00	Dowa Dowa	Tuesday Khamalathu PG (FFT: Maria Devison) Tikondane PG (Kilinesi Kamkondo) Mateyu Chikolosa (KII)	
Farmer Field Business School (FFBS) Groups	3	2		1.30 3.00	Dowa	Wednesday Group Discussion: Khamalidyetsa under Christina Agabu (FFT) KII: Agnes Nkhoma for Talandira FFBS	
Marketing Committees	3	2		8.30am	Dowa	Thursday	

						Marketing Committees to which FFT Robert Katanga belongs	
AEDO	2	1		10.00am	Dowa	Thursday	
ADC / VDC	2	2		12.00pm	Dowa	Thursday VDC to which FFT Limbikani Banda belongs	
Total	23	14					

Kasungu

First Day Friday 25 January 2019

Time	Interviews
8.30am	Scolastica Phiri should organize fellow FFTs from TA Kaomba (8-12 people) for FGD
10.00am	Maggie Nyirenda (Mobile 0999 102 885) from TA Kaomba to organize fellow 8-12 VAs for FGDs
12:00 pm	Dorice Daza from TA Kaomba (Mobile 0998 344 557) to organize fellow 8-12 VAs for FGDs
1.30 pm	Mada Chikho from TA Mwase (Mobile 0997 462 699) to organize fellow 8-12 VAs for FGDs
2.30 pm	VSL Groups under the following FFTs Zione Chimoto (Kaomba)
2.30 pm	Jusina Judai (Kaomba)
4.00pm	Julius Gama (Mwase)

Saturday 26 January 2019

Time	Interviews
8.30am	Producer Groups Tadala PG 10-15 people (Rose Masina FFT) TA Njombwa
10.30am	Bua 1 PG 10-15 people (Justina Gomani)

1:30 pm	FFBS Tayambanawo FFBS 10-15 people (Gloria Magalasi FFT) TA Njombwa
3:00 pm	Khamalaamayi FFBS 10-15 people Ellen Fayison (FFT) TA Njombwa

Sunday 27 January 2019

Time	Interviews
1:00 pm	FFT Julius Gama from TA Mwase should organize 10-15 members of the marketing committee for FGD
3:00 pm	FFT Benna Juma from TA Mwase should organize 10-15 members of the marketing committee for FGD

Monday 28 January 2018

1. AEDO 9.00am
2. VDC FGD from TA Kaomba 1.00