

COOPERATIVE DEVELOPMENT PROGRAM (CD4) MIDTERM EVALUATION REPORT

Initially Submitted: November 23rd 2021

Finalized and approved: March 2, 2022

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Acknowledgements

TANGO would like to thank the Venture37 and Cooperative Development Activity-4 (CD4) staff for their support in making fieldwork and evaluation possible: Kari Onyancha, Danielle Niedermaier, Kaitlyn Smoot based in the US; Willy Nyirigira, Valentine Uwase, Alice Uwingabiye, and Jean Bosco Karera in Rwanda; and Deborah Kafanikhale and Benson Kasekera in Malawi.

The national consultants, Justin Tuyiringire and Daria Muteteri in Rwanda and Mphatso Jumbe and Yanjanani Lifeyo in Malawi were instrumental in providing interpretation and local context support during interviews and workshops.

This report is primarily for Venture37 and CD4 program staff and can be used as a resource to inform reporting to USAID and other CD4 stakeholders. Currently, the program has just completed its third year of activities and this report describes the results of the project mid-term evaluation.

Disclaimer

This report is made possible by the support of the American People through the United States Agency for International Development (USAID). The contents of this report are the sole responsibility of TANGO International and do not necessarily reflect the views of USAID or the United States Government.

List of Acronyms and Abbreviations

Acronym	Definition
CD4	Cooperative Development Activity-4
CISANET	Civil Society Agriculture Network
CLP	Cooperative Learning Platform
FGD	Focus Group Discussion
KII	Key Informant Interview
LOL	Land O'Lakes
LUANAR	Lilongwe University of Agriculture and Natural Resources
M&E	Monitoring and Evaluation
MAFECO	Malawi Federation of Cooperatives
MAGU	Malawi Assemblies of God University
MBG	Milk Bulking Group
MMPA	Malawi Milk Producers Association
MOITT	Ministry of Industry Trade and Tourism
MUSCCO	Malawi Union of Savings and Credit Cooperatives
NCCR	National Cooperative Confederation of Rwanda
NDFFR	National Dairy Farmers' Federation of Rwanda
RCA	Rwanda Cooperative Agency
RNDP	Rwanda National Dairy Platform
RQ	Research Question
RICEM	Rwanda Institute of Cooperatives, Entrepreneurship and Microfinance
RWF	Rwandan Franc
TANGO	Technical Assistance for NGOs
USAID	United States Agency for International Development
USD	United States Dollar
WLP	Women's Leadership Program
V37	Venture37

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Executive Summary

Purpose. The purpose of this midterm evaluation is to analyze and document the extent to which CD4 has achieved its goals and objectives between baseline and midterm and provide recommendations to improve CD4 program performance. The midterm evaluation identifies key changes at project-supported cooperative and apex levels since baseline focused on four midterm evaluation questions, which are:

- I. To what extent are project-supported apex bodies better able to meet the evolving needs of their members?
- II. To what extent has the business performance of project-supported apex bodies and primary cooperatives improved?
- III. To what extent has project-supported learning and dissemination impacted cooperatives and the cooperative development community's support of cooperatives?
- IV. How has the COVID-19 pandemic influenced CD4's results and how has CD4 adapted to the COVID-19 pandemic and how can CD4 adapt better to better ensure sustainability of project outcomes?

Methodology. The Rwanda and Malawi midterm evaluations applied the same procedures and tools. The midterm evaluation team collected primary data in two ways: 1) focus group discussions (FGDs) and key informant interviews (KIIs) conducted via in person interviews; and 2) interviews conducted virtually by TANGO core staff with high-level stakeholders. Primary data collection conducted by TANGO field and core teams is exclusively qualitative. The Malawi research team collected qualitative data from July 25th to August 6th, 2021, and the Rwandan research team collected qualitative data between August 16th to August 27th, 2021. Between the two countries, this evaluation collected data from 189 persons interviewed in 45 separate sessions. Under the scope of this evaluation all quantitative data was collected by CD4 staff. The finalized data sets were shared with TANGO to conduct triangulation analysis around key evaluation findings.

Two scorecard workshops were held, one in Malawi and one in Rwanda, which utilized the knowledge, experience, and expertise of the cooperative sector to better understand changes in the cooperative enabling environment and support to the cooperative sector. The scorecard workshops took place over a half-day on September 17th in Rwanda and September 2nd in Malawi. Due to COVID-19 travel restrictions, TANGO core staff engaged in the workshop in a virtual capacity while Malawi and Rwanda national research teams facilitated the event in person.

For the purposes of this report, “cooperative” refers to primary cooperatives consisting of farmer members. “Union” refers to bodies consisting of primary cooperatives as their members. “Federations” are national level bodies that encompass union members and represent the value chain as a whole at the national level. “Apex body” includes both unions and federations.

Findings: Apex Body Support to Members. Apex bodies in Rwanda and Malawi indicate that they have improved their internal operations because of CD4 governance and financial management trainings. However, union leaders in both countries continue to face problems over access to resources, specifically revenue generation, and they are unable to provide sufficient support to their member cooperatives as a result. Overall, a higher percentage of cooperative members are reporting their unions provide services such as identifying buyers and negotiating prices and providing training in 2021 compared to 2019.

Overall, the perceived value of both essential and non-essential services increased for both countries, and CD4 supported cooperatives in both Rwanda and Malawi report a higher perceived value of services provided by the apex bodies compared to comparison cooperatives. Although this is a positive direction of change, the perceived value of services scores are much lower for apex bodies compared to primary cooperatives, indicating that the overall primary cooperatives are viewed as more valuable than apex bodies by cooperative members. The relationship between the federations and their member unions for all project-supported value chains, with the exception of dairy in Malawi, remains weak at midterm. CD4-supported unions report minimal support received from federations. In both Rwanda and Malawi federation leaders indicate that their primary role is to advocate at the national level for cooperative sector needs and priorities (including pricing negotiations). However, there is a lack of direct linkages between federations and their member unions.

Findings: Cooperative Business Performance. The internal operations, governance practices and financial management/recordkeeping of project supported cooperatives and unions have improved since baseline as a result of participation in CD4 governance and financial management trainings. However, the extent to which cooperatives and unions have been able to increase revenues and provide services to members has been limited, in the context of the ongoing COVID-19 pandemic and related market disruptions.

The extent to which cooperative business performance has improved in Malawi is difficult to quantify due to a lack of data collected in 2019 and/or 2020 for multiple indicators (particularly Malawi financial data, as the limited data available before 2021 was deemed unreliable). However, interviews with Malawi cooperative leaders, CD4 coaches and staff indicate that cooperative business performance has significantly improved since baseline. Cooperative revenues in Rwanda did increase since baseline for maize and horticulture cooperatives, but they decreased for dairy cooperatives. The estimated dollar value of services provided by cooperatives increased for 9 out of 12 CD4-supported cooperatives. The value of services that cooperatives provide to their members is also measured via their perceived value and quality of the services provided. The overall Perceived Value Score for all Rwandan and Malawian cooperatives combined increased overall from 2019 to 2021 for both essential and non-essential services. CD4-supported cooperatives also report higher perceived value of services provided by their cooperative than the comparison. Both quality and quantity of services offered by CD4-supported cooperatives outperformed those offered by comparison cooperatives.

Market and finance access is a primary challenge reported by cooperatives in both Malawi and Rwanda, both at baseline and still at midterm. Furthermore, a lack of support from apex (including union) bodies have limited the extent to which cooperative business performance can improve.

Findings: Impact of Learning and Dissemination on Enabling Environment. Changes to the national level enabling environment take time, and significant changes cannot be expected in the three-year period since the project started. The extent to which learning and dissemination activities and publications have taken place has increased over time. Over the life of the project so far, 53 total publications and learning events have taken place, already exceeding the life of project target of 50. These learning events and publications have been circulated primarily to apex, national, and international stakeholder groups – particularly other CDP implementers. However, there is no evidence at midterm that learning dissemination has reached cooperatives or their members directly.

Scorecard workshops held in both Rwanda and Malawi captured stakeholder input on the level of cooperative sector capacity to support cooperative development and the level of support provided to cooperative development by the national and international development community. Both workshops found that some progress has been made in the cooperative sector enabling environment since the baseline--in improving the cooperative enabling environment via access to information and knowledge sharing, cooperative policy and law development, and governance and cooperative operation. However, these improvements are very small and limited, in both Rwanda and Malawi. The workshops also found that the level of support provided to cooperative development by the national and international development community-- measured through the availability of government financial support, market linkages/private sector support, trainings, donations, and grants--has remained generally stagnant since baseline.

Findings: Impact of COVID-19. COVID-19 has severely negatively impacted business performance of cooperatives and unions and has limited the extent to which support and services have been provided to members. COVID-19 impacted market stability and reduced access to markets for cooperative members and unions, resulting in decreased revenues, particularly for dairy cooperatives. Movement and/or meeting restrictions enacted in response to COVID-19, although significantly more severe in Rwanda than in Malawi, have delayed/limited trainings, meetings, and organizational processes in both countries. However, CD4 staff have effectively adapted training modalities and timing of implementation in order to continue program activities throughout 2021.

CD4 activities have focused on strengthening of internal operations of cooperatives and unions, which has resulted in improved governance and financial management overall. However, linkages between cooperatives, unions and apex bodies remains limited. The strengthened internal operations have allowed CD4-supported cooperatives to adapt relatively better compared to comparison/non-CD4-supported cooperatives. This indicates that CD4 activities have improved supported cooperatives and union's ability to adapt to a significant shock, such as COVID-19.

Recommendations.

Recommendations included in the conclusions and recommendations section of the report have detailed examples of the scope of what is being recommended and methodologies for implementation by CD4 before program closure. For the purpose of this executive summary, the recommendations are summarized below.

1. Increase functional relationships between cooperative leaders, cooperative members, and union leaders for learning and collaborative planning.
 2. Apply learnings resulting from CD4 to promote intra- and inter-cooperative learning.
 3. Facilitate development of long-term strategic vision plans for unions and federation bodies.
 4. Internally assess the purpose, role, primary audience, and functionality of the CLP and learning and dissemination activities.
-
1. **Recommendations for CD4 adaptation to COVID-19.** Develop strategies with supported cooperatives and unions to identify shorter-term opportunities for new markets and to recover markets that have been lost since the onset of COVID-19.
 2. Increase access to finance for unions and cooperatives.
 3. Increase cooperative resilience to future shocks via establishment of cooperative savings funds and insurance options.

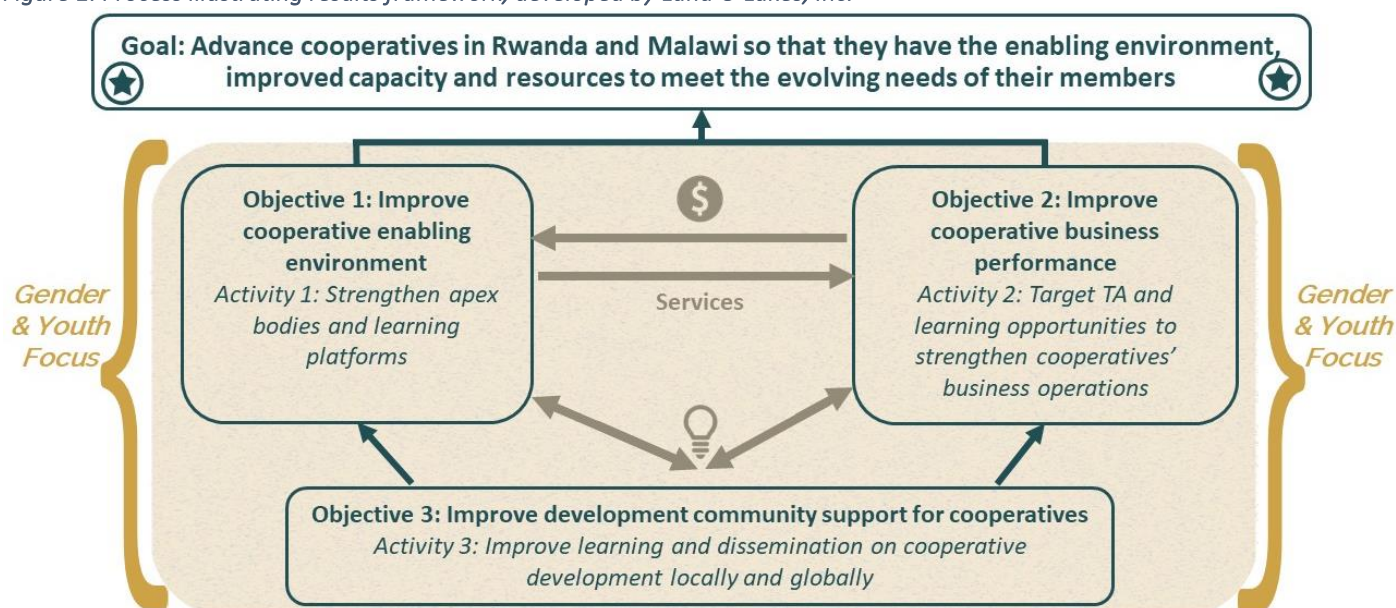
Background

Program Description

Venture37 Cooperative Development-4 (CD4) program aims to improve cooperatives in Rwanda and Malawi to better meet the growing needs of their members.¹ The CD4 program is funded by the United States Agency for International Development (USAID) and is designed to directly support 26 primary cooperatives (18 in cohort 1, 8 in cohort 2, added by end 2021), 10 apex organizations (7 in cohort 1, 3 in cohort 2), and 8,000 cooperative members in Rwanda and Malawi between August 15, 2018, and August 14, 2023.² Venture37 will achieve the goal of advancing cooperatives in Rwanda and Malawi by:

- I. Improving the cooperative enabling environment through capacity building of apex organizations.
- II. Improving cooperative business performance by providing technical assistance (TA) to primary cooperatives directly and through apex organizations.
- III. Improving development community support for cooperatives by conducting research on locally defined learning agenda questions and disseminating learning through local and global channels to improve implementation of CD4 and other cooperative development programs.

Figure 1: Process illustrating results framework, developed by Land O'Lakes, Inc.



Description of Figure 1: The above diagram shows how the three key objectives of the project are tied to key activities, are interrelated and help lead to the ultimate goal. Objective 1 is "Improve cooperative enabling environment," and Activity 1 related to this is "Strengthen apex bodies and learning platforms." Objective 2 is "Improve cooperative business performance" and Activity 2 to achieve is this "Target TA and learning opportunities to strengthen cooperatives' business operations." Finally, Objective 3 is "Improve development community support for cooperatives" which is operationalized through Activity 3 "Improve learning and dissemination on cooperative development locally and globally." Objective 1 feeds into Objective 2 as the strengthened apex bodies provide more services to the cooperatives who are their members. Objective 2 feeds into Objective 1 as stronger cooperatives pay more money to unions through dues. Objective 1 and 2 both are tied to Objective 3 via the generation and exchange of ideas on how to improve cooperatives. Across all these objectives is a cross-cutting focus on gender and youth. Together, these objectives lead to the realization of the goal "Advance cooperatives in Rwanda and Malawi so that they have the enabling environment, improved capacity, and resources to meet the evolving needs of their members."

CD4 related activities expect to generate USD \$1,480,000 in cost share, which includes Venture37 technical assistance and investments from apex bodies, primary cooperative, local universities, and other development activities. Technical support provided by Venture37 to apex organizations and primary cooperatives aims to transition the existing

¹ Venture 37 was formally known as Land O'Lakes International Development

² Land O'Lakes International Cooperative Development Program (Cd4) Baseline, Midterm, And Final Evaluation Scope

cooperative learning platform (CLP) to local ownership and strengthen cooperative business performance. This process is illustrated in the CD4 results framework below.

Purpose and Scope of Midterm Evaluation

The purpose of this midterm evaluation is to analyze and document the extent to which CD4 has achieved its goals and objectives between baseline and midterm and provide recommendations to improve CD4 program performance. The midterm evaluation identifies key changes at project-supported cooperative and apex levels since baseline.

The four key midterm evaluation questions are as follows:

- V. To what extent are project-supported apex bodies better able to meet the evolving needs of their members?
- VI. To what extent has the business performance of project-supported apex bodies and primary cooperatives improved?
- VII. To what extent has project-supported learning and dissemination impacted cooperatives and the cooperative development community's support of cooperatives?
- VIII. How has the COVID-19 pandemic influenced CD4's results and how has CD4 adapted to the COVID-19 pandemic and how can CD4 adapt better to better ensure sustainability of project outcomes?

Methodology and Implementation

Qualitative

The same methodology was applied in both Malawi and Rwanda. The evaluation team collected primary data in two ways: 1) focus group discussions (FGDs) and key informant interviews (KIIs) conducted via in person interviews; and 2) interviews conducted virtually by TANGO core staff with high-level stakeholders. Primary data collection conducted by TANGO field and core teams is exclusively qualitative.

Table 1: Total field KIIs and FGDs completed in Malawi and Rwanda for CD4 midterm evaluation

Primary data collection source	Malawi		Rwanda		Total
	Gender	Total	Gender	Total	
Cooperative & MBG members (FGD)	32 females	55	55 females	108	163
	23 males		53 males		
Cooperative leaders (KII)	2 females	8	2 females	8	16
	3 females		6 males		
Union staff (KII)	0 females	3	0 females	3	6
	3 males		3 males		
Federation staff (KII)	0 females	2	0 females	2	4
	2 males		2 males		
Total Number of Interviews		17		28	45
Total Number of Persons Interviewed		68		121	189

The Malawi research team collected qualitative data from July 25th to August 6th, 2021, whereas the Rwandan research team collected qualitative data between August 16th to August 27th, 2021. Between the two countries this evaluation collected data from 187 persons interviewed in 44 separate interviews. Field research teams conducted 17 interviews with 68 persons in Malawi and 27 interviews with 119 persons in Rwanda. The evaluation team conducted remote interviews with CD4 stakeholders from October 4th to 14th 2021, resulting in the completion of nine remote key informant interviews. An effort was made to get representation of both male and female key informants for each category; where this did not happen, i.e. for Union and federation staff, it is because the main leaders for those organizations were all male.

Quantitative

Under the scope of this evaluation all quantitative data was collected by CD4 Rwandan staff and enumerators. This decision was made because CD4 staff are familiar with the primary cooperatives and unions and are trusted entities to collect sensitive information such as financial data and perceived value of the services provided to them. The finalized data sets were shared with TANGO to conduct triangulation analysis around key evaluation findings.

TANGO and CD4 staff worked together to develop the five tools that comprise the Annual Monitoring Package (shown in Table 2 below) at baseline in 2018. The Registration, Financials and PM2 tools collect census data from all program cooperatives, while the event lists are a census of all CD4 events and attendees.

Starting in year 3 a “comparison” group of cooperatives was identified, and some results measured for them as well, to compare their results to those for the program cooperatives. Though cooperatives were not assigned randomly to comparison or program groups, quasi-experimental methods were used to define the comparison group. Specifically, cooperatives were which were not served by the CD4 program, but which were similar to the program group in terms of fundamental characteristics. Specially, we made sure that we had a proportional representation of the same value chains in comparison vs. program groups, that were based on the same districts, and that the size of membership and the cooperative age since founding did not differ statistically between program vs. comparison groups. Due to resource constraints, it was not possible to get equal numbers of comparison cooperatives as for the program; instead, 10 total comparison cooperatives were selected, 7 in Rwanda and 3 in Malawi. The intention in Years 4 and 5 is to again collect information from these same comparison cooperatives—likely with a few additions, since the program group with also expand in that time and the comparison group will need to expand to remain comparable—and there is a strict rule for the program team that as they add cohort 2 cooperatives they may not pull from the Year 3 comparison group. For these comparison cooperatives, the registration tool was used to collect member information, but financial and PM2 data were not collected.

The Social Capital and Perceived Value Survey gathers quantitative data on participants’ perceived value of participation in the primary cooperatives and apex organizations, as well as data to calculate indices of “behavioral” and “structural” domains of social capital for each organization. The Social Capital and Perceived Value Survey is administered to randomly sampled members of program and comparison cooperatives, stratified by primary cooperative. See Appendix 9 for a more detailed explanation of the purpose of this survey, the key questions asked, and how the indices were calculated using the questions.

Table 2: Sources of data collected by CD4 at midterm

Tool	Purpose and Description	Sample	Timing
Registration	To track individual cooperative members including basic identifying information like gender, age, role within the cooperative and get a count of how many members are active in each given year	Census. All cooperative members.	Annual
Social Capital & Perceived Value Survey	To measure the perceptions of cooperative members of the value offered to them by their cooperative (and apex bodies) as well as their level of trust/confidence in connection to their cooperative (and apex body) leaders and systems. The questions of this survey are used to calculate three different indices for each respondent, which are then averaged together across members in the reported indicator results *Perceived value: The product of the number of cooperative-provided services received by a given member and the rating that member gave to the quality of the service *Behavioral domain of Social Capital: A measure of the general trust and confidence of members in the cooperative and its leaders, this index is generated based on the answers to questions about confidence in leader’s skills and experience	Sample of cooperative farmer members ³	Annual

³ For the social capital and perceptions survey, only members of primary cooperatives are sampled – union and apex bodies are not included in the sample.

	to manage the organization well and how frequently the member feels that they represent their interests well, listen to their voices, and offer them the best prices for their production. *Note that the Apex body score here is drawn from a small pool of questions than that for primary cooperatives, limited to how well apex leaders represent interests and confidence in their abilities *Structural domain of Social Capital: A measure of the strength of certain institutions in the cooperatives to foster connectedness, engagement and rule of law. Specific questions included in the survey are around frequency of engagement of members with leaders (to measure “bridging” social capital), other members (to measure “bonding” social capital), and other actors related to the cooperative’s activities (to measure “linking” social capital), as well as questions about the rules around side-selling and how well they are enforced. *Note that the Apex body score here is only calculated based on a single question ‘How frequently do you engage with the apex body leadership.’”		
Financials	These reports feed into the PM2, to assess change in financial performance. They include data reported from the cooperatives and unions about their revenues, income distributed to members, and equity. They also include estimated Value of Services scores, which are calculated using a questionnaire about services provided which are then quantified using set formulas (roughly: person-days spent providing service * a relevant daily rate)	Census. Cooperative and Union Leadership.	Annual
Performance Measurement and Monitoring System (PM2) Tool Data	To collect necessary information to measure project indicators, and includes information from registration forms for primary cooperatives, unions, and federations, cooperative financials. The project monitoring data (PM2) tool measures cooperative business performance by assessing progress against project indicators. PM2 assessments by CD4 staff are carried out in consultation with cooperative management personnel, board members, and others knowledgeable about the union and its performance. *Cooperatives are assessed on multiple criteria under six topics, including: leadership, adaptive capacity, management capacity, operational capacity, supply, processing and marketing, and productivity and financial performance. *Unions are assessed on multiple criteria under two topics: leadership and management capacity. Each criterion under these topics is scored on a range of 1 to 4. The scores collected from cooperative leaders are averaged to generate a rating across performance areas, which culminates in the overall annual PM2 score.	Census. Cooperative and Union Leadership in collaboration with CD4 staff.	Annual
Event Logs & Attendee Lists	To collect details on dates and types of CD4 events as well as attendees for each event, including gender, age and organization affiliation.	Census. All CD4 events and all attendees	Rolling basis

Malawi quantitative data collection. PM2 Survey data collection conducted by CD4 staff and enumerators in Malawi lasted from July 13th to July 27th, 2021, and the Social Capital and Perceived Value Survey administration occurred between July 23rd to August 5th, 2021.

Rwanda quantitative data collection. PM2 Survey data collection conducted by CD4 staff and enumerators in Rwanda spanned from August 12th to September 2nd, 2021, and Social Capital and Perceived Value Survey data collection took place between August 5th to August 24th, 2021.

Scorecard Workshop

The scorecard workshop activity design utilizes the knowledge, experience, and expertise of the cooperative sector to better understand changes in the cooperative enabling environment [objective 1] and support to the cooperative sector [objective 3]. At baseline in 2018, TANGO facilitated workshops for CD4 stakeholders to develop a wide-lens measurement tool that captures the overall cooperative sector and existing enabling environment.

The scorecard activity was designed to utilize cooperative sector stakeholder's knowledge, experience, and expertise to gain a better understanding of how the cooperative enabling environment and broader support to the cooperative sector change over time. There are two scorecards, covering two topics:

Topic one: Level of cooperative sector capacity in Rwanda to support cooperative development.

Topic two: Level of support provided to cooperative development in Rwanda by the national and international development community.

The scores are based on a scale of zero to ten, zero indicating the worst-case scenario, with a completely non-functioning or non-existent cooperative sector, and ten indicating the best-case ideal scenario of an optimal cooperative sector. During the baseline scorecard workshop clear definitions were given for each individual topic, indicating what a score of zero and what a score of ten would represent for that particular topic, as well as what types of evidence would be used to base the scores off of at baseline, midterm and endline. The scores presented in the scorecard are provided by stakeholders after reaching consensus as much as possible.

The scoring and justification for the provided scores are provided by cooperative sector stakeholders at a general level and asked about the broad cooperative environment in each country. Thus, statements regarding the current status of the cooperative sector encompass all cooperatives and do not evaluate or consider the specific role or impact of CD4 programming or performance of CD4-supported cooperatives specifically. Tremendous changes to the overall enabling environment are not feasible or expected within the three-year timeframe included in the scope of this midterm evaluation. The scorecard scores should be interpreted as overall indicators of the direction of change, and are not meant to be attributed to CD4 work or any other particular factor.

At midterm, CD4 staff identified the key stakeholders within the cooperative sector, focused on those who had previously participated in the baseline scorecard workshop. This group included representatives of national bodies that oversee cooperatives, as well as leaders of several federations, unions, and primary cooperatives. In total, 8-10 stakeholders were invited to participate in the midterm workshop. A week before the workshop, all invited stakeholders were sent the baseline scorecards to re-familiarize themselves with the process, topics, and evidence upon which the scores were based.

The scorecard workshops took place over a half-day on September 17th in Rwanda and September 2nd in Malawi. Due to COVID-19 travel restrictions, TANGO core staff engaged the workshop in a virtual capacity Malawi and Rwanda national research teams facilitated the events in person.

Evaluation Team

The evaluation team included two TANGO Vice Presidents, Dr. Mark Langworthy and Bruce Ravesloot, TANGO Research Associate Chloe Hein, and TANGO Junior Research Associates Chandler Smith and Charles Brands. The evaluation team also included four qualified research professionals at Malawi and Rwanda national levels: two Rwandan researchers, Justin Tuyiringire and Daria Muteteri, and two Malawi researchers, Mphatso Jumbe and Yanjanani Lifeyo. The national-level researchers conducted field focus group discussions (FGDs) with comparison and CD4-supported cooperative members, and key informant interviews (KIIs) with cooperative, union and federation staff, and program stakeholders. The TANGO senior and mid-level team members held high-level KIIs with CD4 staff, apex leaders and program stakeholders.

Vocabulary

For the purposes of this report, “cooperative” refers to primary cooperatives consisting of farmer members. “Union” refers to bodies consisting of primary cooperatives as their members. “Federations” are national level bodies that encompass union members, and represent the value chain as a whole at the national level. “Apex body” includes both unions and federations.

Limitations

This section discusses limitations to the midterm evaluation and explains the methods used by the research team to best mitigate those limitations.

Limitation	Impact	Details and mitigation measures
COVID-19 prevented core evaluation team members from travelling in country	TANGO core staff could not conduct in-person interviews or facilitate the scorecard workshop in-person.	TANGO hired and trained qualified national research teams in both countries to conduct in-person data collection. TANGO maintained constant virtual contact with the teams. TANGO core staff remotely co-facilitated the scorecard workshop.
Low stakeholder participation during remote data collection work	10 of the 16 stakeholder profiles shared with TANGO for remote key informant interviews were scheduled and completed--6 for Rwanda and 5 for Malawi stakeholders. The other 5 individuals did not respond to interview requests or did not show up for scheduled interviews, so the KIIs could not be completed	TANGO shifted timing of key informant interviews by one week to capture as many key informants as possible. TANGO also sent numerous reminder emails. Ultimately, a sufficient number of KIIs were conducted for the purpose of this evaluation.
Quantitative data collection and analysis delays	Quantitative data collection was delayed in Rwanda due to a COVID-19 exposure within the data collection team, which delayed the date TANGO had access to the collected data. Completed analysis of the output indicators Venture37 is responsible for was also delayed as a result.	TANGO adapted internal timelines to accommodate the delay in data provision. The deadline for the midterm report was shifted back by one week to provide sufficient time to integrate and triangulate results.

Rwanda Results and Findings

CD4 programming in Rwanda supports three value chains: dairy, horticulture, and maize. CD4 programming includes direct support to six dairy cooperatives, four maize cooperatives and two horticulture cooperatives, which in total include 6,800 individual cooperative members in 2021.

Table 3: CD4 supported cooperative membership totals in Rwanda

Rwanda Cooperative Members	2019			2020			2021		
	Total	% Female	% Youth	Total	% Female	% Youth	Total	% Female	% Youth
Overall	5498	28.3%	15.0%	5208	28.5%	15.0%	6800	31.8%	14.8%
Dairy	4849	25.5%	15.4%	4492	25.6%	15.3%	5066	26.5%	15.4%
Horticulture	114	50.0%	7.0%	182	41.2%	11.5%	147	46.3%	16.3%
Maize	479	52.2%	11.1%	477	50.7%	11.3%	1534	47.9%	12.9%

The total cooperative membership increased from 2019 to 2021 for all CD4-supported value chains. The percentage of female and youth members has remained steady across the time frame. CD4-supported dairy cooperatives in 2021 have 5,066 members overall, 26.5% of which are female members, and 15.4% are youth. CD4-supported horticulture cooperatives have 147 total members, 46.3% are female and 16.3% are youth. CD4-supported maize cooperatives have a total of 1,534 members, 47.9% are female and 12.9% are youth. Dairy cooperatives have fewer female members compared to horticulture and maize cooperatives.

CD4 also provides direct support to three unions, [REDACTED] (dairy), [REDACTED] (horticulture) and [REDACTED] (maize). A table of CD4 supported primary cooperatives and their associated union and federation is included in Appendix 1. According to interviews with union leaders [REDACTED] has a total of 11 primary cooperative members, [REDACTED] has five primary cooperative members, and [REDACTED] has 20 primary cooperative members.

This section addresses Research Question 1: To what extent are project-supported apex bodies better able to meet the evolving needs of their members?

Apex Support to Members

Union support to members.

Cooperative members across all interviews conducted for this midterm evaluation indicate limited awareness of the union at midterm. CD4 staff report that this could be because support provided by union advisors supported by the CD4-program are not perceived by cooperative members to be representing the union, but rather from CD4, thus limiting awareness of the union from a typical cooperative member. Furthermore, interviews with union leaders and CD4 staff indicate that communication between unions and cooperatives happens rarely, but when done, communication is between union leaders and cooperative leaders, further limiting cooperative member exposure to and/or awareness of the union. Survey data shows in 2021, the percent of program cooperative members reporting awareness of their union was 31.3% for dairy, 81.3% for horticulture, and 52.7% for maize. This represented an increase in awareness since year 1, and a higher level of awareness than for comparison cooperative members. However, it actually decreased for all three value chains between Year 2 to 3. CD4 staff report this might be because cooperative leaders (who are expected to be more aware of the unions) were slightly over-sampled in Years 1 and 2, but this was corrected by Year 3.

Table 4: Percent of respondents reporting aware of Union in Rwanda from 2019 to 2021 across value chains

Rwanda & value chains	Year 1 2019	Year 2 2020	Year 3 2021	
	Program	Program	Program	Comparison
Rwanda	33.1%	55.6%	41.8%	21.6%
Dairy	25.3%	45.9%	31.3%	10.4%
Horticulture	39.4%	73.9%	81.3%	10.0%
Maize	50.6%	70.5%	52.7%	34.0%

Interviews with cooperative members across value chains show that cooperative members are unable to describe the role of the union, or what kinds of support the union should be providing. Half of focus group discussions (FGDs) held at the cooperative level indicated that they do not receive any services from the union, despite paying union membership fees. Survey data show that only 26.9% of cooperative members report that their cooperative provides representation of their interests to the government, indicating the extent to which cooperative perceive their cooperative/cooperative leaders have direct linkages for representation are limited. Although it is possible these respondents are unaware of services that are actually provided to their cooperative or are unaware that the services

they receive are provided by their union. Key informant interviews (KIIs) with cooperative leaders across value chains find that cooperative leaders are aware of the union, but they are unsure of who specifically to contact or how to get in contact with their union. This indicates a lack of crucial direct linkages between the cooperatives and unions.

Interviews with union staff indicate that the extent to which unions have been able to provide direct support or services to member cooperatives is limited. This is supported by data from the Value of Services survey. From January 2020 to September 2021, the calculated dollar value of services provided by dairy and maize unions decreased, suggesting that the number and/or value of the services that they provided went down. By contrast, the dollar value of services provided by [REDACTED] horticulture union in Rwanda increased significantly, by 241.7%. However, CD4 technical staff in Rwanda indicate that this is because the reported value of services in 2020 is quite low, at less than \$200 USD, so even the modest increase in services they experienced equates to a high percentage change. The horticulture union score increase were driven by their creation of a number of new services including collective selling, training and increased market linkages recently as a result of CD4-support and trainings (see Table 5).

Table 5: Rwanda union value of services (USD)⁴

Value chain	Name	Value of Services (USD)			Percent change 2020-2021
		2019 ⁵	2020	2021	
Dairy		n/a	\$867.9	\$736.7	-15.1%
Maize		n/a	\$7810.2	\$2170.5	-72.2%
Horticulture		n/a	\$182.4	\$623.3	241.7%

One consistently service provided by unions across value chains and years was “advocacy.” Interviews with project cooperative members found that the most common example of “advocacy” provided by the union is the facilitation of cooperative linkage to CD4 programming. The three union services cited in the majority of cooperative member FGDs at baseline were (1) advocacy, (2) price setting, and (3) conflict resolution. Of focus groups across value chains that report union awareness or benefits from union services at midterm, the top three most cited services unions provide at midterm are (1) linking cooperatives to buyers, (2) advocacy, and (3) conflict resolution. KIIs indicate that “advocacy” includes price negotiations. This is supported by data collected by CD4 which shows that the majority of cooperative members surveyed report that dairy (65.1%), maize (60.0%) and horticulture (70.6%) unions provide advocacy as a service to their members.

Table 6: Percentage of cooperative members reporting services provided by Union to its members in Rwanda

Services Provided by Union to its members in Rwanda	Year 1	Year 2	Year 3	
	2019	2020	2021	
			Program	Comparison
Identify buyers and negotiates prices	32.4	18.3	36.7	50.0
Provide Inputs	8.3	7.6	7.3	17.9
Advocacy	26.9	57.0	64.4	57.1
Provide Training	33.8	35.0	65.0	75.0
Conflict Resolution Between Cooperatives	34.5	23.2	24.9	10.7

⁴ USD value of income and/or services delivered to members by cooperatives and credit unions calculated using PM2 and financial reports. CDP Purpose #1 outcome results, which is calculated with data collected by CD4 via annual monitoring. CDP Purpose #1 aggregates the total dollar value that cooperatives provide to their members. It is computed by summing the total income that each cooperative distributes to their members with the total value of the services that each cooperative provides to its members. This creates an estimation of the total value of services provided by the union in \$USD.

⁵ Data not collected in 2019

Conflict resolution is another of the key cited services provided by unions. The instances of unions facilitating conflict resolution are primarily in conflicts among member cooperatives or conflicts on financial disputes within one cooperative. Survey data collected by CD4 show that 25.3% of dairy cooperative members indicate their union has provided conflict resolution across cooperatives, 23.5% of horticulture cooperative members and 25.0% of maize cooperative members report the same (see Appendix 2 for detailed tables). Maize union representatives and cooperative leadership reported the union has conducted audits of cooperatives to resolve financial disputes among members.

Interviews with dairy union leaders show that [REDACTED] union has resolved conflicts between large and small cooperatives. Specifically, interviews with [REDACTED] union leaders indicate that there are conflicts between their member cooperatives regarding alleged milk market monopolization of the larger cooperatives. Union leaders indicate that smaller cooperatives report that large cooperatives are expanding territorial claim by renting office spaces owned by smaller cooperatives. Interviews with and information shared by CD4 staff in Rwanda suggest that this issue is limited to one very large cooperative [REDACTED] which CD4 staff do not believe to be a clear case of monopolization, but is instead more nuanced. [REDACTED] is large enough to overlap its geographic membership coverage with other smaller dairy cooperatives and has strong existing infrastructure, including owning a truck. Interviews with cooperative members, union leaders, and CD4 staff show members of relatively smaller dairy cooperatives sometimes end up side-selling to [REDACTED], rather than their official cooperative. [REDACTED] has used its strength to support other smaller cooperatives; CD4 staff provided an example in which a smaller dairy cooperative was unable to operate its own milk collection center, so those cooperative members voted to rent a milk collection center space. After a competitive bidding process facilitated in coordination with CD4, [REDACTED] won the contract for the smaller cooperative to rent out some milk collection center space for their own cooperative members. Given that there is still a negative perception of [REDACTED] among several smaller dairy cooperatives, [REDACTED] Union might need to do more in the future to arbitrate the conflict and encourage all its members, of varying sizes, to work together more cooperatively and/or consolidate the smaller dairy cooperatives within the same geographic area.

Interviews with cooperative leaders indicate that larger cooperatives have an easier time accessing inputs than smaller cooperatives, which can lead to conflict among cooperatives. Survey data collected by CD4 indicate that relatively few cooperative members report their unions are providing access to inputs, as 0% of horticulture, 2.4% of dairy, and 18.3% of maize cooperative members indicate their union provides access to inputs (see detailed tables in Appendix 2).

Cooperative members reporting that their union has linked their cooperative to buyers is new since baseline and indicates the unions have expanded the available services to cooperatives in the last three years. However, interviews indicate the extent to which unions have successfully linked cooperatives to buyers is limited and typically a one-time occurrence, rather than consistent support. For example, a horticulture cooperative leader reported that despite the fact the cooperative paid a 150,000 RWF union membership fee to [REDACTED], the union connected the cooperative to a buyer once. Aside from this one event, the cooperative leader reported that the union has no perceived benefit to the cooperative. But the trend of general but limited improvement is supported by data collected by CD4, which shows that the extent to which unions reportedly identify buyers and negotiate prices for their member cooperatives has increased for dairy and maize value chains since baseline. In year one, 35.5% of dairy cooperatives reported their union, [REDACTED], identified buyers and negotiated prices, this decreased to 22.0% in year two, then increased to 43.4% in year three. A similar pattern is observed for maize, in which the percentage of cooperatives reporting their union, [REDACTED] identified buyers and negotiated prices decreased from 28.6% in year one to 19.5% in year two, then increased to 35.0% in year three. By contrast, in the horticulture value chain the percentage of cooperatives reporting their union, [REDACTED] identified buyers and negotiate prices is lower in year three (23.5%) compared to year one (30.0%) (see detailed tables in Appendix 2). This is in alignment with findings on the impact of COVID-19, which show that the cooperative sector in Rwanda was heavily impacted by the onset of COVID-19 in year two (2020) of CD4 implementation.

Social Capital and Perceived Value. The value of services apex bodies provide to members is also measured via the perceived value score, as calculated from questions asked of the sub-sample of surveyed primary cooperative

members who reported that they were aware of their relevant union or federation. This score measures the quality and quantity of services provided to get an overall measurement of the perceived value members report of the services provided to them. In Rwanda, the perceived value score for both essential and non-essential services have increased from 2019 to 2021, though the difference was only statistically significant for essential services. Data was not collected from comparison cooperatives until 2021. Data from 2021 showed a higher PV score for CD4 supported cooperatives versus comparison cooperatives, but this difference was not significant at the 90% threshold or higher. The lack of statistical significance is likely due to the very low sample size for the comparison cooperative members who were asked these questions, and those were low because very few comparison members said they were aware of their apex organizations.

Table 7: Rwanda Perceived Value Scores of Services Provided by Apex Bodies by surveyed coop members

Rwanda perceived value index components for apex bodies	2019	2020	2021	
	Program	Program	Program	Comparison
Essential Services				
Quantity of essential services provided score (0-1)	0.24	0.29	0.39	0.42
Mean quality of essential services provided score (0-1)	0.40	0.50	0.47	0.34
Perceived value score of essential services (0-1)	0.17	0.25***	0.25***	0.20 (NS)
Non-Essential Services				
Quantity of non-essential services provided score (0-1)	0.23	0.20	0.23	0.19
Mean quality of non-essential services provided score (0-1)	0.40	0.50	0.47	0.34
Perceived value score of non-essential services (0-1)	0.10	0.13 (NS)	0.13 (NS)	0.08 (NS)
SAMPLE SIZE (Number of farmers in SCPV survey who said they knew the apex orgs and so were asked detailed questions about them)	145	263	177	28

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the full PV score, not for the quantity and quality of service sub-components of this score.

Detailed tables on the perceived value scores per value chain are included in Appendix 3. Across all three supported value chains in Rwanda, the perceived value of essential services from apex organizations increased from 2019 to 2021. CD4-supported cooperatives report higher quality scores of services provided by their apex bodies compared to comparison cooperatives, but a lower number of services provided overall. This indicates that CD4-supported cooperatives perceive their apex bodies have fewer number, but higher quality essential services, compared to comparison cooperatives. CD4-supported cooperatives report apex bodies have a slightly higher number of non-essential services that are also reportedly higher quality compared to comparison cooperatives, and interestingly, when all services (non-essential + essential) are lumped together, there is a statistically significant difference between the apex PV score for program vs. comparison coops, at the 91% significance level (see Appendix 3 for detailed tables).

The impact of apex body support to their members is also measured in changes to indices measuring the “behavioral” and “structural” domains of social capital. An explanation of the meaning and calculation of these scores can be found in the Methodology section above, and in Appendix 9. Overall, there are not large changes in either domain of social capital observed between 2019 and 2021 at midterm.

The behavioral domains for apex bodies focus on how often members feel their union/federation effectively represent their interests, and confidence that the union and federation have the knowledge and experience to manage the business operations. The behavioral domain score for CD4-supported unions and federations increased across value chains from 0.47 to 0.53 from baseline to midterm, a change that was statistically significant to the 99% level. The increase was most dramatic for horticulture, which saw an increase 0.35 in 2019 to 0.58 in 2021. This indicates that horticulture apex bodies have slightly increased members’ perceptions that they represent members interests and can effectively manage their business operations. The behavior domain scores have been essentially stable since 2019 for both dairy (0.49 in 2019, 0.52 in 2021) and maize (0.46 in 2019, 0.52 in 2021) apex organizations. Although in 2020 a

slight increase in scores is observed compared to 2019 for both dairy and maize apex bodies, this change was not sustained into 2021.

Although the behavior domain scores of CD4-supported apex bodies overall have been fairly stable from 2019 – 2021, CD4-supported apex bodies do have higher scores compared to comparison bodies in 2021, with statistical differences found at the 90% level for the results aggregated across value chains. This indicates that CD4-supported bodies are more likely to have their members report that their apex bodies represent their interests and can effectively manage the business operations of the federation or union.

Table 8: Rwanda Behavioral Domain Score (0-1) for Apex Organizations

Value chain	2019	2020	2021	
	Program	Program	Program	Comparison
Overall Behavior Domain Score Apex Bodies	0.47	0.57***	0.53***	0.48*
Dairy	0.49	0.56	0.52	0.43
Horticulture	0.35	0.60	0.58	0.46
Maize	0.46	0.59	0.52	0.53

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

The structural domain score for apex bodies is based on one survey question, about how often the member respondent engages with their union or federation leadership. In alignment with findings from interviews with cooperative leaders indicating that cooperative leaders do not have a direct connection or method to contact their union or federation, structural domain scores in 2020 and 2021 for both CD4-supported and comparison bodies are very low (and statistically the same) at 0-0.06. This indicates that federation and union members do not engage directly with the union or federation in 2021. This is a dramatic and statistically significant decrease from 0.25 for dairy, 0.13 for horticulture and 0.15 for maize bodies in year 1. This shows that in 2019 there was some limited direct engagement with union and federation bodies, and that declined almost to zero in 2020 and 2021. Typically, it is not expected that primary cooperative members would have direct engagement with their union and federation bodies, and these connections happen more commonly between cooperative leaders (who are only a limited % of the SCPV survey respondents) and the apex bodies, so these results are not surprising and are in alignment with qualitative findings. CD4 staff suggest that one major reason for the decrease in scores in 2019 to later years could be the relatively lower percentage of cooperative leaders in the 2021 SCPV surveys when compared to earlier years (this was a deliberate adjustment, because leaders made up a disproportionate part of the sample in earlier years), plus the significantly decreased number of meetings held during the COVID-19 lock-downs. However, as even the baseline levels were fairly low here, this clearly supports the finding that connections between cooperative members and unions are low in general.

Table 9: Rwanda Structural Domain Score (0-1) for Apex Organizations

Value chain	2019	2020	2021	
	Program	Program	Program	Comparison
Overall Structural Domain Score Apex Bodies	0.22	0.05***	0.03***	0.02 (NS)
Dairy	0.25	0.04	0.02	0.01
Horticulture	0.13	0.07	0.06	0.00
Maize	0.15	0.05	0.03	0.03

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

Federation support to members. The relationship between the federations and their member unions for all project-supported value chains remains weak at midterm. CD4-supported unions report minimal support received from federations. Field interviews show that the [REDACTED] horticulture union paid a 200,000 RWF membership fee to the

horticulture federation, but that only one instance of the federation linking the union to a buyer had occurred, in 2018. Maize union staff assert that the purpose of the federation is to advocate for the maize value chain with the government and other actors, but report that the federation has not supported the union in any way. The maize union representative was unable to name the federation during an interview at midterm, which illustrates the lack of connection between the maize union and federation. This is supported by perceived value survey data which shows a low percentage of respondents reporting they are aware of the federation. Dairy cooperative members and union leaders are less likely to report awareness of the dairy federation in 2021 (6.9%) than in 2019 (8.8%). The percentage of horticulture and maize cooperative members and union leaders reporting awareness of the federation increased since 2019 to 1.8% of maize and 25.0% of horticulture members in 2021. On the other hand, CD4 supported bodies are more likely to report awareness of the federation compared to comparison cooperatives and unions, so the program might be having some small effect on this area.

Table 10: Percent of respondents that report awareness of Federation in Rwanda

Rwanda and value chains	Year 1 (2019)	Year 2 (2020)	Year 3 (2021)	
	Program	Program	Program	Comparison
Rwanda	9.3%	15.2%	9.9%	3.6%
Dairy	8.8%	14.2%	6.9%	6.3%
Horticulture	21.2%	15.2%	25.0%	0.0%
Maize	5.9%	17.9%	11.8%	1.9%

Field interviews with dairy cooperative staff indicate that the performance of the dairy federation, National Dairy Farmers' Federation of Rwanda (NDFFR), is weak because it does not engage member unions and does not influence the dairy value chain in Rwanda. Dairy cooperative staff report that the dairy federation's decline resulted in a power vacuum, and that the Rwanda National Dairy Platform (RNDP) provides more direct-support to the dairy value chain. CD4 staff assert that the Dairy Federation is functional, but with very limited operations, and COVID-19 disproportionately impacted the entire dairy sector that encompasses the Dairy Federation. Field interviews indicate that project-supported dairy unions are less likely to engage the federation for assistance and are instead seeking the support of the Rwanda Cooperative Agency (RCA), a national government cooperative regulatory body which promotes and advocates for cooperatives countrywide. Qualitative data indicates that CD4 directly involves RCA as a partner through signed memorandums of understanding that aim to achieve sustainability after CD4 programming phases out.

This section addresses Research Question 2: To what extent has the business performance of project-supported apex bodies and primary cooperatives improved?

Business Performance

Cooperative Business Performance

In this section, we examine multiple direct measures of cooperative business performance like revenues earned, income distributed to members, and equity generated. But we also look at more general measures of cooperative capacity and strength, which are expected to contribute to financial performance. This includes metrics around management capacities from the PM2 survey, estimated value of services provided to coop members, perceived value of those services as rated by coop members, and more general measures of social capital of the cooperatives. These results for social capital and perceived value might have better fit into a research question "To what extent are project-supported primary cooperatives better able to meet the evolving needs of their members," analogous to this section above for Apex bodies. However, that was not one of the pre-defined questions for this Midterm report, so we have put the information into this section instead.

Generally, across all these metrics, cooperative business performance in Rwanda has improved since baseline.

PM2 quantitative data collected at midterm indicates that ten out of twelve cooperatives (83%) improved, and 33% had substantial improvement of over 0.25 points since baseline. PM2 results collected and calculated by CD4 staff is presented in Table 11 below.

Table 11: PM2 Scores of Rwanda Primary Cooperatives Over Time

Type	Name	Value chain	Year 1 score (2019)	Year 2 score (2020)	Year 3 score (2021)	Change from 2019-2021*
Cooperative		Dairy	2.07	2.36	2.73	Substantially Improved
Cooperative		Dairy	2.39	2.27	2.47	Improved
Cooperative		Dairy	3.08	3.05	2.91	Decreased
Cooperative		Dairy	2.13	2.63	2.68	Substantially Improved
Cooperative		Dairy	2.24	2.32	2.18	Decreased
Cooperative		Dairy	2.46	2.73	2.70	Improved
Cooperative		Horticulture	1.80	1.97	2.17	Substantially Improved
Cooperative		Horticulture	n/a	1.99	2.67	Substantially Improved (since year 2)
Cooperative		Maize	2.06	2.23	2.66	Substantially Improved
Cooperative		Maize	2.37	2.39	2.63	Substantially Improved
Cooperative		Maize	1.85	2.18	2.55	Substantially Improved
Cooperative		Maize	1.98	2.06	2.17	Improved
Total number of primary cooperatives with improved PM2 score in Rwanda						10

*Substantial improvement in Rwanda defined as an increase in PM2 score from 2020 to 2021 of at least 0.25 points (out of a total possible of 4 points), Improvement is defined as any increase in PM2 score.

All CD4-supported maize and horticulture cooperatives show increased PM2 scores from 2019 to 2021. The detailed PM2 score results broken down by practice area, reported by value chain and country, are shown in Annex 10. For maize cooperatives in Rwanda, the improved PM2 scores are particularly observed in management capacity and productivity and financial performance. The extent to which maize cooperatives report recruitment, development and retention of general staff, financing and access to financial services, financial operations management, capital structure and debt ratio increased significantly from year one to year three. Horticulture cooperatives in Rwanda increased PM2 scores overall, particularly in productivity and financial performance in the areas of debt ratio, inventory turnover and capital structure.

Of the six CD4-supported dairy cooperatives, four showed improved PM2 scores. The average PM2 rating across all CD4-supported dairy cooperatives has increased from 2.39 in year one to 2.60 in year three. This increase is particularly observed under management capacity, particularly in the shared goals/performance targets, organizational processes' and recruiting, development and retention of general staff.

Cooperative Support to Members. Value of services surveys collected by CD4 at midterm shows that the estimated dollar value of services provided by cooperatives increased for 9 out of 12 CD4-supported cooperatives. This indicates that overall, cooperatives are providing more and/or higher value services to their members at midterm compared to one year prior. Of the three cooperatives which show a decrease in the value of provided services, two of these are dairy cooperatives, which qualitative data suggests is due to COVID-19 disproportionately negatively impacting the dairy sector.

Table 12: Rwanda cooperative value of services to members (USD) ⁶

Value chain	Name	Value of Services (USD)			Percent Change 2020-2021
		2019 ⁷	2020	2021	
Dairy		<i>n/a</i>	\$ 3,743	\$ 7,736	107%
Dairy		<i>n/a</i>	\$ 17,034	\$ 17,470	3%
Dairy		<i>n/a</i>	\$ 193,107	\$ 170,490	-12%
Dairy		<i>n/a</i>	\$ 23,236	\$ 8,952	-61%
Dairy		<i>n/a</i>	\$ 6,895	\$ 7,139	4%
Dairy		<i>n/a</i>	\$ 6,735	\$ 16,261	141%
Maize		<i>n/a</i>	\$ 8,281	\$ 10,180	23%
Maize		<i>n/a</i>	\$ 11,997	\$ 9,232	-23%
Maize		<i>n/a</i>	\$ 3,015	\$ 4,010	33%
Maize		<i>n/a</i>	\$ 2,213	\$ 3,058	38%
Horticulture		<i>n/a</i>	\$ 2,006	\$ 2,926	46%
Horticulture		<i>n/a</i>	\$ 5,344	\$ 7,187	34%
Total		<i>n/a</i>	\$ 283,605	\$ 264,640	-7%

Qualitative data shows that the dairy value chain is more vulnerable to market shocks that resulted from COVID-19. Interviews with cooperative leaders, CD4 implementing staff, and internal program documents indicate that the dairy value chain is disadvantaged because it requires more resources such as cooling tanks, refrigerated cooling units, access to electricity to power refrigeration, temperature conditioned vehicles for transport, housing and health costs for dairy animals, and access to milk processing facilities. This means that a decrease in revenue, as happened as a result of market losses due to COVID-19, immediately impacts the extent to which cooperatives are able to cover the costs of this expensive equipment and infrastructure. However, when dairy cooperatives can successfully provide those necessary resources-- as is normally the case in absence of a crisis like the pandemic-- the total value of the services provided is much higher compared to cooperatives in other value chains that don't require as many or as expensive types of services or equipment to function. Dairy cooperatives are also highly impacted by market changes resulting from COVID-19, because milk as a very limited shelf-life and dairy production and collection takes place daily, whereas maize and horticulture production are seasonal. Thus, when a dairy cooperative is unable to sell product, locate a buyer, transport product, or otherwise offload the supply-- which has been common during the pandemic-- cooperative members are unable to store or save their additional product and must resort to milk dumping, which can lead to significant losses even in a short time period.

Interviews with cooperative members indicate that they are receiving the following types of services from their cooperatives: verification of the quality of their production prior to selling, identification of buyers, price negotiations, input provision, training, linkages to financial services, loans for inputs, and conflict resolution among members. The extent to which cooperatives are providing these services is captured in CD4 monitoring data, presented in Table 13 below.

⁶ The calculation of Value of Services and Income to Members aggregates the total dollar value that cooperatives provide to their members. It is computed by summing the total income that each cooperative distributes to their members with the total value of the services that each cooperative provides to its members.

⁷ Rwanda cooperative value of services data not collected in 2019.

Table 13: Percentage of cooperative members reporting cooperative services provided to members, Rwanda

Services Provided by the Cooperative to its members in Rwanda	Year 1 2019	Year 2 2020	Year 3 2021	
			Program	Comparison
Quality Verification	50.0	60.2	66.4	60.4
Identify buyers and negotiates prices	82.9	85.8	91.5	79.3
Provide storage facilities	24.4	33.1	46.2	33.3
Provide Inputs	53.7	52.2	49.7	56.8
Provide Training	70.7	83.1	68.1	81.1
Links to Financial Services	42.7	51.3	56.1	34.2
Loans for Inputs	42.3	64.0	70.5	56.8
Conflict Resolution Among Members	47.6	48.9	46.2	31.5

91.5% of surveyed cooperative members in Rwanda report that their cooperative identifies buyers and negotiates prices on their behalf. Qualitative data show that this is a very crucial function of the primary cooperatives, one which cooperative members highly value. Data show that the extent to which cooperative members report their cooperatives are identifying buyers and negotiating prices has increased over time across all value chains, indicating that since 2019, all CD4-supported cooperatives have strengthened this service. CD4-supported cooperative members are also more likely to report that their cooperative does identify buyers and negotiate prices compared to comparison cooperative members. A majority of CD4-supported cooperative members also report that their cooperative provides loans for inputs (70.5%), provides training (68.1%) and provides quality verification of cooperative members production (66.4%). Cooperative members reporting their cooperative has provided linkages to financial services has increased across all value chains over time, from 42.7% in 2019 to 56.1% in 2021. CD4-supported cooperative members were much more likely than the comparison to report they have financial services linkages through their cooperative. A detailed table that includes a breakdown by value chain of reported cooperative services provided can be found in Appendix 2, Table 52.

Social Capital and Perceived Value. The value of services cooperative provide to members is also measured via a perceived value of services score, which measures cooperatives members perceived value and quality of services provided by their member cooperative. Midterm data show that the perceived value score for both essential and non-essential services has consistently increased from 2019 to 2021, and those increases are statistically significant. Data was not collected from comparison cooperatives until 2021; however, 2021 data indicate that CD4 supported cooperatives report a higher perceived value of cooperative services compared to comparison cooperatives, and this difference was also statistically significant. This holds true for both essential and non-essential PV scores, but the significance level of the difference is higher for essential services (99% vs. 95% levels, respectively). The score differences are driven by the numbers of services component, with average quality of services scores the same between comparison and program cooperatives. This indicates that CD4-supported cooperatives provide a higher number of services to their members compared to non-CD4 supported cooperatives, and they are able to maintain the same level of quality even when providing a higher number of services.

Table 14: Rwanda Perceived Value of Services provided by Primary Cooperatives⁸

Rwanda perceived value index components for primary cooperatives	2019	2020	2021	
	Program	Program	Program	Comparison
Primary Cooperatives				
Essential Services				
Quantity of essential services provided score (0-1)	0.49	0.52	0.58	0.49
Mean quality of essential services provided score (0-1)	0.76	0.84	0.82	0.79
Perceived value score of essential services (0-1)	0.42	0.49***	0.52***	0.44***
Non-Essential Services				
Quantity of non-essential services provided score (0-1)	0.39	0.49	0.49	0.43
Mean quality of non-essential services provided score (0-1)	0.73	0.80	0.80	0.81
Perceived value score of non-essential services (0-1)	0.30	0.40***	0.40***	0.35**
SAMPLE SIZE (number of farmers given the SCPV survey)	246	372	342	111

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the full PV score, not for the quantity and quality of service sub-components of this score.

Cooperative performance is also measured through changes to “behavioral” and “structural” domains of social capital, which seek to measure trust and connectedness between cooperative members and leaders. The scores for these indices pull from a wider list of questions for the primary cooperatives when compared to the apex organizations. For the behavioral domain index there are additional questions added for primary cooperatives specifically asking about how well the cooperative negotiates prices and passes them on to members. For the structural domain index there are questions not just about frequency of engagement with leaders, but also with other members and actors outside the cooperative, and a series of questions about rules against side-selling and how well they are enforced. The Methodology section above, as well as Appendix 9, includes more explanation of the meaning of these 2 domain indices and how they are calculated. Overall, there are no noteworthy patterns from 2019 to 2021, besides some limited increases in social capital observed for horticulture cooperatives since baseline.

The behavioral domain score increased overall, across value chains, from 2019 to 2020 and the difference was significant, though it then stagnated between 2020 and 2021. The results varied slightly by value chain, with increases from 2019 to 2020 for all, but then a decrease from 2020 to 2021 for horticulture and maize. As for the comparison between program versus comparison group scores in year 3, average levels were slightly higher for the program, but there was no statistical difference found.

Table 15: Rwanda Behavioral Domain Score (0-1) for Primary Cooperatives

Cooperative value chain	2019	2020	2021	
	Program	Program	Program	Comparison
Cooperative Behavior Domain Score	0.72	0.79***	0.79***	0.82 (NS)
Dairy	0.76	0.78	0.80	0.83
Horticulture	0.39	0.74	0.67	0.71
Maize	0.75	0.85	0.80	0.83

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

⁸ The perceived value score is the product of two components, those being 'quality of services' and 'quantity of services.' The two components are normalized so that the value ranges from 0 to 1 and can be reported as a percentage.

Overall structural domain scores have remained stable from 2019 – 2021, across value chains. There was a small degree of increased in the score between 2019 and 2020 which was statistically significant, but by 2021 scores had declined again and no significant difference existed from baseline. Comparison cooperatives report slightly higher structural domain scores overall compared to program cooperatives, and this result is statistically significant (to 95% level).

Table 16: Rwanda Structural Domain Score (0-1) for Primary Cooperatives

Cooperative value chain	2019	2020	2021	
	Program	Program	Program	Comparison
Cooperative Structural Domain Score	0.36	0.38***	0.33 (NS)	0.31**
Dairy	0.36	0.38	0.33	0.31
Horticulture	0.28	0.31	0.28	0.25
Maize	0.39	0.43	0.37	0.32

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

Although the social capital scores changes over time are minimal, it is important to note that the behavioral and structural domain scores for primary cooperatives are much higher compared to apex body scores. This indicates that the extent to which social capital, defined as “the capital of cooperation, joint action, mutual trust, and mutual assistance, which are formed in the course of economic relations between individuals”⁹ is more present within primary cooperatives, rather than between primary cooperatives and their apex bodies, which is reflected throughout the qualitative data. This is also reflected in the perceived value of services scores, which are much higher for primary cooperatives (0.52 in 2021) than for apex bodies (0.25 in 2021).

Table 17: Comparison of social capital scores for apex bodies versus primary cooperatives in Rwanda from baseline to midterm

Score type	Body type	2019	2020	2021	
		Program	Program	Program	Comparison
Behavior Domain Scores	Apex Bodies	0.47	0.57***	0.53***	0.48*
	Cooperatives	0.72	0.79***	0.79***	0.82 (NS)
Structural Domain Scores	Apex Bodies	0.22	0.05***	0.03***	0.02 (NS)
	Cooperatives	0.36	0.38***	0.33 (NS)	0.31**

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021.

Cooperative members were asked how likely they are to recommend their primary cooperative to other producers on a scale of one to ten, one being not at all likely and ten being highly likely/definitely. In Rwanda, the reported likelihood that dairy or maize cooperative members would recommend their cooperative remained stagnant from 2019 to 2021. Horticulture cooperative members increased the likelihood they would recommend the cooperative, from 5.5 in 2019 to 7.7 in 2021. Comparison cooperative members were more likely to recommend their cooperative than CD4-supported cooperative members across all value chains in 2021, and this result was statistically significant. This finding undermines our hypothesis, and findings from other qualitative and quantitative data, that the program-supported cooperatives offer a higher value proposition, but unfortunately there was not time to further probe the reason for this finding. In the future more qualitative follow-up conversations should be done with both program and comparison cooperative members to better understand this finding.

⁹https://www.researchgate.net/profile/Slobodan-Cvetanovic/publication/282206307_The_concept_of_social_capital_in_economic_theory/links/5655775508ae1ef9297720e5/The-concept-of-social-capital-in-economic-theory.pdf

Table 18: Rwanda cooperative members reported likelihood to recommend primary cooperative (scale of 1-10)

	2019	2020	2021	
	Program	Program	Program	Comparison
Rwanda	6.9	7.6***	7.0 (NS)	7.4**
Dairy	6.8	7.4	6.8	7.0
Horticulture	5.5	8.0	7.7	7.9
Maize	7.4	7.8	7.1	7.7

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

Cooperative Financial Performance.

CD4-supported cooperatives report successfully collecting membership fees. Cooperative members reported their membership fee costs in qualitative interviews at midterm, presented in Table 19 below.

Table 19: Rwanda cooperative membership fees in Rwandan Franc and USD

Value Chain	Rwandan Franc	USD
Dairy	30,000 – 66,000	\$29 - \$65
Maize	60,000 – 70,000	\$59 - \$70
Horticulture	60,000 – 120,000	\$59 - \$119

Interviews conducted with dairy cooperative members found their annual membership fees range from \$29 - \$65 USD, while maize and horticulture cooperatives reported higher membership fees, ranging from \$59 - \$70 USD for maize cooperative members and \$59 - \$119 for horticulture cooperative members. Horticulture cooperative membership fees of 120,000 RWF or \$119 USD was reported by both male and female FGDs with the [REDACTED] cooperative.

CD4-supported primary cooperatives reported that especially before COVID-19 began to impact Rwanda in March 2020, they observed increased production from use of improved seeds and inputs, increased member income and higher cooperative profits. Field interviews show that CD4 trainings for cooperatives on financial management and governance are perceived by some members to be the reason for increased cooperative profits. Cooperative revenues increased since year one for maize and horticulture cooperatives but decreased for dairy cooperatives. Cooperative financial data collected by CD4 show dairy cooperative revenues have decreased from Year 2 to Year 3 by 6.5% overall, with revenue decreases ranging from 2.6% to 34.2% of cooperative revenue (see Table 20).

Table 20: Rwanda primary cooperative revenue by value chain over time¹⁰

Cooperative		Revenue (USD)			Percentage Change Year 1 to Year 3	Percentage change Year 2 to Year 3
Value Chain	Name	Year 1 January – December 2018	Year 2 January – December 2019	Year 3 January – December 2020		
Dairy	[REDACTED]	\$114,863	\$122,156	\$84,291	-26.6%	-31.0%
Dairy		\$170,166	\$240,740	\$214,167	25.9%	-11.0%
Dairy		\$3,002,664	\$2,923,194	\$2,848,240	-5.1%	-2.6%
Dairy		\$199,208	\$130,485	\$98,398	-50.6%	-24.6%
Dairy		\$85,570	\$97,637	\$77,041	-10.0%	-21.1%
Dairy		\$129,009	\$141,771	\$93,285	-27.7%	-34.2%
Maize		\$12,607	\$13,134	\$12,936	2.6%	-1.5%
Maize		\$14,348	\$14,508	\$15,417	7.5%	6.3%
Maize		\$58,716	\$35,219	\$68,918	17.4%	95.7%
Maize		\$34,033	\$32,559	\$49,238	44.7%	51.2%
Horticulture		n/a*	\$273	\$835	n/a	205.7%
Horticulture		n/a*	\$11,235	\$22,674	n/a	101.8%

Note: Financial data is collected for the previous financial year. Thus, financial data for year one of program implementation is based on financial performance in 2018.

* Horticultural cooperative revenue data was not collected in Year 1.

¹⁰ Horticultural cooperative revenue data was not collected in Year 1

Dairy cooperative revenue increased overall from Year 1 to Year 2, indicating that prior to March 2020 and the onset of COVID-19 related challenges, dairy cooperative revenue did increase in the first two years of CD4 implementation. Internal program documents report the restaurant and processing industries are primary consumers of the dairy value chain and have undergone temporary but severe shutdowns that have led to reduced operational capacity due to the pandemic. COVID-related lockdown measures in Rwanda were severe, including curfews starting at 6pm in which people were confined to their homes, movement between villages/districts was limited, and food delivery was halted. Compared to maize and horticulture value chains, dairy is more prone to expiry, has a shorter shelf life, and requires more resources and infrastructure to store.¹¹ Thus, dairy cooperatives had much higher losses, because dairy storage is limited and finite and the decrease in demand, decrease in number of buyers, and decrease in market prices due to COVID-19 led to increased milk dumping and spoilage. This is supported by interviews with dairy cooperative members, leaders, union representatives, national stakeholders and CD4 staff.

Maize cooperative revenue was stagnant for two out of four cooperatives and decreased for two out of four cooperatives from year one to year two. Subsequently, maize cooperative revenues have increased from Year 2 to Year 3 by 53.5%. Three of four CD4 supported maize cooperatives report increased revenue from 2020 to 2021, whereas all four cooperatives report increased revenue from 2019 to 2021, which suggests the maize value chain and associated cooperative groups have maintained market accessibility throughout the pandemic. Internal program reports indicate that maize cooperatives have direct agreements with processing companies that eliminate the use of intermediaries to buy and sell product. Interviews with CD4 staff assert that this is due to business development services initiated by CD4, which helped cooperatives access stronger markets and maintain good business relationships with buyers. This direct buyer arrangement has assisted maize cooperatives through the pandemic because large buyers maintained their demand for maize products more than small intermediaries did. Program reports also indicate that the maize value chain is strong because it is a staple food and supported by the Rwandan government.¹²

Changes in revenue data for horticulture cooperatives was unavailable in year one, so the change between year one to two cannot be measured. But horticulture cooperatives revenue increased from Year 2 to Year 3 by 104.3%. Both CD4-supported horticultural cooperatives report revenue increases that surpass 100% of their 2020 revenue value. From 2018 to 2020, [REDACTED] cooperative revenue increased from \$273 to \$835 USD and [REDACTED] revenue increased from \$11,235 to \$22,674 USD. Focus group discussions with cooperative members show that members attribute increased cooperative revenue to improved financial management through regular record keeping, cooperative budgeting, finance committees responsible for cooperative oversight, and better financial transparency. CD4 staff report that collective marketing of horticulture produce is due to CD4 activities, as before programming began, horticulture cooperative members were individually selling their production. As a result of CD4 activities, horticulture cooperatives are practicing collective marketing for the first time within the last year. Cooperative members report that CD4 governance trainings have contributed to improved cooperative function by increasing member understanding of their rights and inspiring member engagement and participation in decision-making.

Impact of CD4 activities on Cooperative Business Performance. Project supported cooperatives report that participation in CD4 activities has led to improved governance and financial management practices since baseline. However, market challenges and a lack of support from apex bodies have limited cooperative business performance and are particularly impactful to dairy cooperatives. Interviews with cooperative members and leaders indicate that CD4 supports cooperative business performance through trainings on gender, governance, and financial management helping link cooperatives to markets, providing office materials, and facilitating relationships between government bodies and cooperative groups.

Before starting program activities in 2019, CD4 conducted cooperative needs assessments utilizing the PM2 tool to assess the status of each cooperative and identify areas in which each cooperative needs to improve. In addition to this, each cooperative develops its own annual action plan in which cooperatives identify where they'd like to be in one year and longer-term goals. This action plan is reviewed by CD4. The cooperative needs assessment and the cooperative annual action plans provide clear direction for CD4 to develop internal action plans, tailored for each

¹¹ CD4 Finance Data Debrief 22 September 2021

¹² CD4 Finance Data Debrief 22 September 2021

cooperative being supported. CD4 conducts monthly debriefing meetings in which progress against the action plan and needs for additional support is discussed per cooperative.

In Rwanda, CD4 implements training and provides direct support to cooperatives through hired consultants, who are responsible for providing coaching to each cooperative within their district. By midterm CD4 has completed two six-month-long coaching campaigns, and a third is planned to begin in December 2021. Coaches are assigned to specific cooperatives and provide direct support to those cooperatives once a week. CD4 staff indicate that so far there have been positive results in the completion of governance and financial management trainings, which is supported by feedback from interviews with cooperative members and leaders at midterm.

Qualitative data collected across all value chains indicates that CD4 trainings on governance and financial management are one of the most impactful program activities provided. Interviews with CD4 implementers, training and cooperative specialists indicate that CD4 activities have focused significant efforts into building cooperative governance capacity and strengthening cooperative governance practices and systems. Cooperative leaders report that because of CD4 financial management and governance training, cooperative members have more confidence in cooperative operations. CD4 coaches report the biggest challenge to progress is in cases in which a cooperative does not have a dedicated accounting team or person. At midterm, four of the CD4-supported cooperatives do not currently have an accountant. CD4 coaches have reportedly been working with these cooperatives to develop record keeping processes and fill out accounting information. This has allowed these cooperatives to maintain financial records that are clearly organized for the first time. CD4 staff report that these cooperatives now have financial data to base decisions on for the first time, allowing these cooperatives to accurately consider the financial impacts and cost benefit of decisions and investments made on behalf of the cooperative members.

Additional CD4 trainings have aimed to educate primary cooperatives on marketing their products and accessing better markets. Cooperative leaders report that these trainings have educated primary cooperatives on product marketing and accessing markets. Qualitative field data found some cases of CD4 facilitating market linkages for cooperatives by directly connecting cooperatives to buyers. Interviews with cooperative leaders indicate additional support in market linkages is needed.

Gender Specific Activities and Impact. In 2019, CD4 hired a gender specialist to conduct a gender assessment and develop a gender action plan. Interviews with this consultant gender specialist at midterm indicate that CD4 delivers gender trainings through a sequenced approach comprised of multiple components. Gender trainings involve men and women and proceed through dialogue engagement on inequality and violence, female participation in financial decision-making and cooperative leadership positions, male uptake of domestic work, community discussion events on gender, selection of gender champions to resolve gender-based violence in the community, and a two-day participatory Women's Leadership Program. The gender action plan is organized in three phases, phase one includes foundational training and sensitization, phase two includes gender champions, mentors and safe spaces, and phase three focuses on cooperative policies and collaborative capacity building and change maintenance.¹³ Phase one started in August 2019 and focused on building understanding of the basic concepts around gender, gender stereotyping, gender norms, and masculinity. Phase one included four separate trainings at each of the participating primary cooperatives: foundational gender training, gender-based violence training, domestic couples training, and women's leadership training. Phase one trainings included sessions for men and women separately, after which trainings were held for couples to participate in together in which topics such as power dynamics, budgeting, financial management, and joint decision making were covered. Phase two started in August 2020 and consisted of development of women's safe spaces in August 2020, trading places training in September 2020 in which couples discussed their daily routines and shared their perspectives and experiences. Gender champions groups were developed in October and November 2020, and the Women's Leadership Program training took place in Kigali in December 2020.

The Women's Leadership Program (WLP) included two cohorts which each participated in a two-day training. The WLP took place at national level in which representatives from all CD4 supported cooperatives attended the training. Staff indicate that CD4 invited an average of six female cooperative members per CD4-supported cooperative to this

¹³ Land O'Lakes Gender Analysis Action Plan 2019

meeting. Female cooperative leaders were also included in the training to help encourage and empower cooperative members by sharing their experiences and how they've been navigating gender-related challenges within their leadership positions. Interviews with CD4 staff indicate that the WLP focused on communication skills, leadership approaches, techniques, and discussion on the characteristics of good leaders. Phase three took place in January – March 2021 in which the hired consultant gender specialist met with CD4-supported cooperatives and developed gender policies and action plans for each of the cooperatives.

In Year 3 there were a total of 15 gender-related events, with 106 attendees, held by CD4 in Rwanda. By contrast, in Year 2 there were 64 gender-related events with 648 attendees. This large drop in gender events (and events generally) was due to COVID related restrictions and lockdowns. The percent of female attendees at targeted gender events was 54% in Year 2 and 66% in Year 3, compared to average female attendance for all CD4 events of 47% in Year 2 and 38% in Year 3. In year 3, average female attendance at events was lower than the goal of 50% because with the limited number of events due to COVID, the few that remained tended to target cooperative leaders, who are disproportionately male. The high ratio of female attendees at gender-related events was due to the inclusion of the Women's Leadership Program, since attendees were almost exclusively female.

Interviews with cooperative members indicate that because of the gender trainings provided by CD4, there has been an increase in confidence for female members to participate fully in cooperative activities. CD4 trainings on gender and female empowerment are reported by cooperatives members to decrease gender-based violence. Cooperative members report that there is higher female participation in cooperative activities, that women and men have equal member rights, and that there are more women in cooperative leadership positions since CD4 programming began. Interviews with CD4 staff indicate that further gender action research is currently underway which will inform implementation plans in 2022.

Challenges to cooperative business performance. Qualitative field data show challenges to cooperative business performance include COVID-19 impacts, insufficient amount of land, lack of storage for maize sheds and dairy cooling warehouses, and a strong disconnect between cooperatives and unions. Cooperative and union members report that the pandemic reduced cooperative access to markets, increased market instability, delayed and halted payments from buyers, diminished farmer access to inputs, and increased the price of inputs. Cooperative members report that they need more land to expand their production operations and accept more members, yet they are unable to do so due to the high expense of leasing and buying land. This is a common challenge in the context of Rwanda, in which insufficient land for agricultural activities is an ongoing challenge nationally. Challenges to cooperative business performance is further discussed in the Impact of COVID-19 section of this report.

Union Business Performance

Business performance of all three CD4-supported unions has improved since baseline. Union business performance is quantified via the Performance Measurement and Management System (PM2) tool which is designed to measure progress against project indicators. This data is collected annually from all union leadership participating in CD4 programming. PM2 assessments are completed by CD4 staff in consultation with union management personnel, board members, and others knowledgeable about the union and its performance. PM2 results collected and calculated by CD4 staff is presented in Table 21 below.

Table 21: PM2 Scores for Rwanda Unions Over Time

Type	Name	Value chain	Year 1 score (2019)	Year 2 score (2020)	Year 3 score (2021)	Improvement 2019 to 2021*
Union		Dairy	1.71	1.54	2.00	Substantially Improved
Union		Maize	1.32	1.63	1.96	Substantially Improved
Union		Horticulture	1.21	1.42	1.83	Substantially Improved
Total number of unions with improved PM2 score in Rwanda						3

*For any Union which increased their score from baseline to current year of 0.25 points or more marked as an increase in alignment with the program target

The PM2 data show that all three CD4-supported unions have steadily improved in business performance since baseline. Interviews with union leaders and CD4 staff indicate that unions have participated in CD4 financial management and governance trainings which have resulted in improved governance structures, accountability mechanisms, record keeping and financial transparency. Interviews with CD4 staff indicate that starting in 2020, CD4 designed one paid union advisor, one per supported union based at district level, to provide ongoing direct support to the unions. These advisors provide trainings on capacity strengthening and provide ideas for revenue generation. They provide weekly reports to CD4 which detail the activity plan, next steps, and identify what support is needed from CD4. Interviews with union leaders indicate that CD4 has also provided all supported unions with laptops, printers, financial recordkeeping books, and horticulture and maize unions indicate CD4 also provided an internet router. During KIIs, union leaders expressed that CD4 support, and especially the governance training has improved the functionality of union processes, but this is still in the early stages and new staff continually need to be re-trained.

Union improved business performance is reflected in the available union revenue information. Union revenue data was only collected for the CD4-supported unions in years 2 (2019) and 3 (2020), which shows an increase in [REDACTED] maize union revenue of over 400%, while both [REDACTED] dairy union and [REDACTED] horticulture union report zero revenue in both year 2 and 3 (see Table 22). The increase in [REDACTED] maize union revenue is reportedly due to the fact that this union is purchasing agriculture inputs, such as improved seeds and fertilizers in bulk at favorable prices, then selling those inputs to their cooperative members at an increased price to generate union revenue. This is a positive example of a union implementing a revenue generation system. Both the CD4-supported dairy and horticulture unions report zero revenue, which is in alignment with findings presented on the limited capacity for unions to provide adequate support to their member cooperatives. Internal program documents indicate that the CD4-supported dairy and horticulture unions are planning to start similar profit-generating activities in the next year (2021), however, interviews with union leaders indicate this has not yet materialized.¹⁴ CD4 staff report that the project is currently encouraging all supported unions to engage in revenue-generating activities in years four and five of project implementation.

Table 22: Rwanda Union Revenue from 2018 to 2020 across value chains

Type	Name	Value chain	Year 1 January – December 2018	Year 2 January – December 2019	Year 3 January – December 2020	% Union revenue change 2019 to 2021*
Union		Dairy	n/a	\$0	\$0	-
Union		Maize	n/a	\$3,052.0	\$16,617.0	444%
Union		Horticulture	n/a	\$0	\$0	-

*Union Revenue was not collected in Year 1.

¹⁴ CD4 Finance Data Debrief 22 September 2021

Challenges to union business performance. The Government of Rwanda mandates the existence of unions in each district; however, interviews with union leadership indicate that there is insufficient support from the government for unions to function as intended. Although unions in Rwanda are mandated by law, there is limited guidance within existing laws for what the scope of union operations should be, and even more limited financial support available. CD4 staff indicate that the new cooperative policy that is in the process of being finalized does include information on the scope for Union operations. This should have a positive impact on the extent to which unions understand and have clear scope of operations in the last years of project implementation. This cooperative policy under development will also encourage unions to be business-oriented entities which have income generating activities in order for unions to be self-reliant and not rely on contributions from primary cooperatives, as the new law as planned prohibits all unions from charging fees to primary cooperatives. The law states unions can only share capital, which is an investment that cooperatives choose to make in the union that will repay the cooperative body if the union generates revenue.¹⁵ There are some instances of unions creating opportunities for income generation through the member cooperatives. [REDACTED] maize union already generated revenue through sales of inputs to farmer members starting in 2019. And interviews conducted with [REDACTED] horticulture union representatives, report that it buys cooperative products and resells those products for higher prices to generate income for union coffers. This revenue generation by [REDACTED] did not start until July 2021, and the financial records used to report results for Year 3 ran from January to December 2020, which is why the results have not yet showed up in the official finance indicator results for CD4. CD4 staff report they expect to see an increase in [REDACTED] revenue reflected in the Year 4 financial results, which will report results for January to December 2021.

Although CD4-supported unions in Rwanda do provide some services to their member cooperatives, the unions have low capacity to adequately support the needs of cooperatives and cooperative members overall. Key informant interviews (KIIs) found that union representatives feel that low union capacity is a result of unpaid staff positions and the lack of full-time staff, unions currently do not have staff and rely on volunteer leadership positions. The absence of a financial incentive for union staff and the lack of a full-time commitment to union priorities and duties limits the role that the unions could provide. In interviews with [REDACTED] dairy and [REDACTED] horticulture union staff, unpaid staff positions have reportedly resulted in unmotivated union staff, high turnover, and ineffective union efforts. Interviews with union and cooperative personnel indicate that cooperatives recognize the low capacity of unions and are less willing to pay union membership fees as a result, which reduces the union income streams and further lessens overall financial capacity. Internal documents indicate that CD4 programming is pushing union leaders to develop income generating activities independent of cooperatives to generate necessary revenue for unions to address resourcing challenges. CD4 program staff report that achieving this may make unions more attractive to cooperative members and help establish union self-sustainability.

Horticulture, dairy, and maize unions report having weak relationships with their member cooperatives, which is reportedly a result of unions being operated by committees of unpaid volunteers, who thus lack financial incentive to improve union activities or facilitate market linkages for cooperatives. Unpaid union staff reportedly devote limited time to union operations, as they reasonably must prioritize their individual income generating activities. Interviews with union leaders found that union leaders report they do not already know who specifically to contact at every one of their member cooperatives, but they could eventually get this information if needed. This is supported by interviews with cooperative members and leaders which also report limited or no direct contact or relationship with their union. Interviews with CD4 staff indicate that CD4 union advisors have worked with unions to provide trainings on capacity strengthening and provide ideas for revenue generation options and that these same advisors are also working with the member cooperatives of the supported unions, however, there has not been a specific program activity linking cooperatives and unions.

Enabling Environment

This section addresses RQ3: To what extent has project-supported learning and dissemination impacted cooperatives and the cooperative development community's support of cooperatives?

¹⁵ CD4 Finance Data Debrief 22 September 2021

Programmatic Learning Events. CD4-supported learning and dissemination is channeled through the Cooperative Learning Platform (CLP). The CLP is designed to bring together cooperative stakeholders to share learning and generate learning around the learning agenda research questions developed through stakeholder workshops conducted during the baseline evaluation and other topics relevant to the cooperative sector.

The number of learning agenda research questions pursued at the programmatic level has increased over time. CD4 monitoring data show one learning agenda question was pursued in 2019 (Gender assessment for CD4 project in Rwanda including development of gender action plan) and 2020 (Which revenue models are cooperative apex organizations using to offer value to their members?), and two learning agenda questions were pursued in 2021 (Which revenue models generate enough revenue to sustainably support the existence of the apex organization? and How are financial reports used for decision-making in primary cooperatives?). These four learning agenda questions were pursued through grants provided by CD4 and resulted in four completed reports. Each time a research study was completed, CD4 shared the findings to the cooperative development community through the CLP framework. Interviews with CD4 staff indicate that CD4 is currently planning a research symposium that will take place in year four (2022) in which all the research reports/findings will be presented to the symposium participants. CD4 staff indicate that this symposium will also be used as an opportunity to discuss the best way forward for implementation of the research studies' key findings.

At midterm there is no evidence for how these research findings and resulting learning result are utilized for direct impact on primary cooperatives and their members, but rather, learning and knowledge sharing is taking place at international and national levels. USAID objectives for the CDP initiative focus on international learning as well as local learning, which CD4 has made progress on since 2019. For example, at the programmatic level CD4 is engaging directly with OCDC (Overseas Cooperative Development Council) to conduct research initiatives and disseminate useful learning to the international cooperative community (beyond Rwanda and Malawi). CD4 is also engaging with other CDOs at the programmatic level via direct collaboration and sharing of useful learnings in the cooperative sector; e.g. the results of the COVID impact survey conducted in 2020/2021 through a collaborative process across the CDP network.

Rwanda Learning Events. CD4 staff indicate CLP events do not only cover learning agenda topics and have recently focused on the cooperative enabling environment issues including gender inclusion and policy revision. CLP events are held both at national and district level. CD4 staff report that cooperative member representatives have been invited to district level CLP events. CD4 event log data indicates that 13 CLP events have taken place in Rwanda from 2019 - 2021. The event log data does not include the subject or descriptions of the content of these events. The event logs do show that the average attendance size of CLP events is 35 individuals, ranging from events included 7 to 75 total participants.

Key informant interviews with CD4 staff found that CD4 issued a grant in 2020 to the National Cooperative Confederation of Rwanda (NCCR) to implement the CLP and associated workshops. Interviews with NCCR representatives and CD4 staff indicate that NCCR is primarily responsible for the development and planning of CLP events, supported by a steering committee. The steering committee includes CD4, RCA, RNDP, some cooperative representatives, and other INGOS who support cooperative movement in Rwanda (UNILAK, Catholic Relief Services, RICEM, ICCO Corporation, PSF-RCAL).¹⁶ Program staff report that CD4 also supported the RCA in developing the National Strategy for Cooperative Development, which includes CLP implementation plans. Interviews with NCCR representatives report that CD4 activities have impacted cooperative/union/federation performance in Rwanda in most areas such as complying with the cooperatives law and understanding the role of business policies and strategic planning. NCCR indicates that these cited improvement towards the performance of cooperatives in Rwanda were due to CLP meetings which created a mechanism for direct collaboration between Venture37/CD4, NCCR and RCA.

¹⁶ CLP steering committee meeting notes. September 13 2019. Prepared by John Bosco Karera.

CD4 outcome monitoring data shows that the number of learning or dissemination events held and/or publications released by CD4 has increased since baseline. In 2021, 16 total events, presentations, conferences, and publications were released in Rwanda, compared to 5 in 2019 (see Table 23). Interviews with CD4 staff indicate that learning events were successfully adapted to being held remotely, where possible, throughout the last year in response to COVID-19, which has facilitated continued learning dissemination. When events are held in-person, staff report that COVID-19 restrictions limited the frequency of CLP meetings and the number of individuals who could participate. For example, staff indicated that in the last two years these restrictions led to reduced average CLP meeting attendance capacity from 60-80 individuals in attendance per event to half a dozen people per event.

Table 23: The number of learning or dissemination events held and/or publications released from baseline to midterm in Rwanda¹⁷

Events in Rwanda	Year 1 2019	Year 2 2020	Year 3 2021	Total
CLP Event	4	4	5	13
Presentation	1	2	4	7
Conference	0	1	4	5
Publication	0	0	3	3
Total	5	7	16	28

The midterm scorecard workshop in Rwanda took place on Friday, September 17th, 2021. The Rwandan research team facilitated the workshop and TANGO core staff gave virtual presentations and provided technical support remotely. 14 stakeholders were invited to the workshop, representing the National Cooperative Confederation of Rwanda (NCCR), University of Lay Adventists Kigali (UNILAK), AgriPro Focus, AGRITERRA, Association of Microfinance Institutions in Rwanda (AMIR), Rwanda Cooperative Agency (RCA), Rwandan Ministry of Commerce, and CD4-supported unions and cooperatives. Two CD4 staff members and 8 stakeholders involved in the Rwandan cooperative sector attended the midterm scorecard workshop. Stakeholders attended represent the [REDACTED] Dairy Farmers Union (NDFU), NCCR, Rwanda Institute for Cooperatives, Entrepreneurship and Microfinance (RICEM), [REDACTED] horticulture union, the dairy cooperative [REDACTED], [REDACTED] maize union, [REDACTED], and the [REDACTED] District.

The first scorecard focused on the level of cooperative sector capacity in Rwanda to support cooperative development. The components of this largely relate to the “enabling environment” for cooperatives, around government policies and their enforcement, but also to information and knowledge sharing and the internal state of governance of the average cooperative in the country. There is a lot of overlap inherent between this Scorecard 1 and Scorecard 2, which focuses on the level of support from the development community for cooperatives. The key intended difference is that Scorecard 2 is meant the types of support provided and Scorecard 1 is meant to highlight the cooperative sector capacities that are in many cases the result of that support.

Overall, Scorecard 1 results show no, or negative progress in cooperative sector capacity between baseline and midterm (see Table 24).

¹⁷ Data reported by CD4 via event logs, publication, or presentation tracking.

Table 24: Rwanda Scorecard One results at baseline and midterm, scale from zero to ten

Scorecard 1: Level of cooperative sector capacity (enabling environment) to support cooperative development	Evidence	BL score 2018	MT score 2021
1.1 Access to information and knowledge sharing	- Number of proper channels and permanent means of information sharing - Volume of relevant information transmitted by each channel	4.3 ¹⁸	4.8 ¹⁹
1.2 Policy and laws governing cooperatives are set	- Number of policies in place and given to every cooperative at the time of registration. - Number of policies in place that support the interests of cooperatives. - Number of contacts/ events in which cooperatives or their representatives provide input into establishing policies	7	5 ²⁰
1.3 Governance (Leadership) and structured management in terms of paid staff, and structure of union, federation	- Number of trainings on cooperative governance and management - Number (percent) of women, youth in leadership positions. - Number of management meetings and self-evaluation and audit	5	5

Stakeholders assert that access to information and knowledge sharing has only minimally improved since baseline. The workshop attendees reported several reasons for this. First, although the majority of cooperative leaders have smart phones and are able to get information which they share with cooperative members through meetings and phone calls, cooperative members largely do not have direct access to smart phones and/or internet bundles. Second, there is one radio station which offers agricultural information relevant to cooperative members, but this is not universally accessed. Third, stakeholders report that there are no formalized information sharing channels directly to or within cooperatives, and most of the information that is provided is basic and partial/incomplete, for example, cooperative members know about apex bodies (according to stakeholders), but do not have enough information to know how the apex bodies work.

Scorecard results show policies and laws governing cooperatives have decreased from a score of 7 (out of 10) at baseline to 5 at midterm. The reported reasoning for this decrease is that although the Rwandan government does have cooperative policies and laws in place, some of which were updated as recently as May 2021, these are not properly communicated to cooperatives and thus stakeholders may engage in practices that are not compliant with the new laws. Similarly, stakeholders reported that conflicts among cooperatives due to a lack of knowledge on the content of the laws and resulting violations is common. Stakeholders also assert that cooperative leaders intentionally do not communicate the laws and policies of the cooperatives, to avoid accountability.

The score for governance (leadership) and structured management in terms of paid staff, and structure of union, federation remained the same from baseline, as stakeholders identified no significant changes since the baseline to warrant a change in the score.

Scorecard 2 focuses on the level of support provided to cooperative development in Rwanda by the national and international development community. The components emphasize financial, market-access and technical support provided from various stakeholders (government, NGO and private sector). As mentioned above, there are linkages and overlap between this scorecard and the previous Scorecard 1, but generally participants were instructed to focus the ratings here on support provided by various stakeholders and to focus Scorecard 1 ratings on cooperative capacities and opportunities, many of which might have been the result of this support.

Overall, scores increased indicating that more support is provided to cooperative development at midterm compared to baseline (See Table 25).

¹⁸ The range of scores for this element are as follows: 3 stakeholders voted for a score of 4, three other stakeholders votes for a score of 5, and one stakeholder voted for a score of 6.

¹⁹ The range of scores for this element are as follows: 2 stakeholders voted for a score of 5, 3 stakeholders voted for a score of 3, 2 stakeholders voted for a score of 7, and one stakeholder voted for a score of 6.

²⁰ The range of scores for this element are as follows: one stakeholder voted for a score of 3, one stakeholder voted for a score of 4.5, one stakeholder voted for a score of 6, one stakeholder voted for a score of 7, and four stakeholders voted for a score of 5.

Table 25: Rwanda Scorecard Two results at baseline and midterm, scale from zero to ten

Scorecard 2: Level of support provided to cooperative development in Rwanda by the national and international development community	Evidence	BL score 2018	MT score 2021
2.1 Government financial support to cooperative sector (investments in supporting infrastructure, extension services; subsidies on inputs to cooperatives, etc.)	Level of infrastructure (road conditions, communication access, etc.) Level and appropriateness of government investments into cooperative sector	5 ²¹	7
2.2 Trainings, field visits, information sharing (provided by external actors)	Number of trainings provided. (Harmonized training manuals reviewed by Rwanda Cooperative Agency) Number of learning events (field visits). Types and method of information sharing.	4.5 ²²	4.5
2.3 Market linkages	Number of contract farming agreements, or other long-term buyer contracts Certification schemes	4	4.5 ²³
2.4 Access to finance	Number of coops with access to finance for themselves and their members	4.4 ²⁴	5
2.5 Donations, Grants provided to cooperatives from government, NGOs, etc.	Number of coops that have benefited from donations and grants from the government and other NGOs Participation of recipient in how grant/donation is used.	4.9 ²⁵	5.7 ²⁶

The first sub-topic “Government financial support to cooperative sector (investments in supporting infrastructure, extension services; subsidies on inputs to cooperatives, etc.)” increased from a score of 5 at baseline, to 7 at midterm. This increased mainly due to government investment in improved infrastructure in rural areas including roads, drying sheds and irrigation facilities, availability of government subsidies to access inputs, fertilizers, etc. and subsidies for milk collection cans.

“Support provided via trainings, field visits, information sharing (provided by external actors)” has not changed enough since baseline to warrant a change in the scorecard result. Stakeholders report that although more trainings have reached more people, these trainings do not cover all required areas or the most important areas (such as marketing strategies), they are not tailored to the specific needs of the different cooperatives, and they are often duplicative.

The “Market linkages” score has improved slightly, from a score of 4 at baseline to 4.5 at midterm. Stakeholders report that cooperatives have better access to markets now than in 2018, but there are not sufficient markets for all cooperatives to have equal access. Furthermore, some cooperative’s production does not meet quality standards for the market. Additionally, dairy representatives mentioned that they are seeing low milk prices per liter, and these m cooperative members’ cost of production.

“Cooperative access to finance” has reportedly improved, from a score of 4.4 at baseline to 5 at midterm. This is because more cooperatives now have land titles and therefore can use it as collateral. However, this is still a minority of cooperatives overall, and most cooperatives cannot utilize land titles as collateral. Cooperatives have been encouraged to make payments to their members through their banks to avoid cash transactions and to help cooperative members to obtain loans through those banks. Stakeholders report that, currently, there is insufficient knowledge on the contract terms for loans via formal banking institutions, and this is a barrier for cooperative members.

²¹ The range of scores for this element are as follows: 4 stakeholders voted for a score of 6, and four stakeholders voted for a score of four.

²² The range of scores for this element are as follows: 2 stakeholders voted for a score of 6, 3 stakeholders voted for a score of 5, and 3 stakeholders voted for a score of 3.

²³ The range of scores for this element are as follows: 3 stakeholders voted for a score of 5, 3 stakeholders voted for a score of 4, 1 stakeholder voted for a score of 6 and 1 stakeholder voted for a score of 3.

²⁴ The range of scores for this element are as follows: 2 stakeholders voted for a score of 6, five stakeholders voted for a score of four, and one voted for a score of 3.

²⁵ The range of scores for this element are as follows: 3 stakeholders voted for a score of 4, four stakeholders voted for a score of five, and one stakeholder voted for a score of 7.

²⁶ The range of scores for this element are as follows: 6 stakeholders voted for a score of 5, two stakeholders voted for a score of 8 and one stakeholder voted for a score of 6.

The “Donations, Grants provided to cooperatives from government, NGOs, etc.” score has increased, from a score of 4.9 at baseline to 5.7 at midterm. Stakeholders report that this is because cooperatives can access grants through the Rwanda Business Development Fund; however, due to an overwhelming number of requests, the extent to which cooperatives obtain these grants is limited. Stakeholders report there have been more donations from the government and international NGOs in terms of equipment like drying sheds, milk cans, milk coolers, and office materials, but these are not distributed across all cooperatives. Horticulture Cooperatives pointed out that the horticulture value chain still needs more support to purchase equipment for processing and storage, as their products have a shorter shelf-life.

This section addresses Research Question 4: How has the COVID-19 pandemic influenced CD4’s results and how has CD4 adapted to the COVID-19 pandemic and how can CD4 adapt better to better ensure sustainability of project outcomes?

Impact of COVID-19

Impact of COVID-19 on Results. The COVID-19 pandemic has severely impacted the business performance of cooperatives and unions in Rwanda. Markets became highly unstable, with a major drop in demand by large buyers, high price volatility, generally low selling prices, and reduced access to markets for cooperative members and unions. During the pandemic, because of supply chain issues, there were also increases in the prices of farming inputs (like seeds and manure).

Field interviews found that COVID-19 reduced individual income and resulted in some members being unable to afford cooperative fee payments. This is in alignment with the results of the COVID-19 Impact Study, conducted over four survey rounds from May 2020 through February 2021, which found that the primary impacts of COVID-19 on cooperative members in Rwanda is a decrease in income, and the primary impact on cooperative operations is reduced revenue.²⁷ The impact of this is ongoing. Interviews with cooperative leaders and CD4 staff indicate that some cooperatives are still experiencing active losses related to COVID-19, and as a result are not yet able to shift to a period of adaptation and rebuilding. Some cooperatives indicate that money planned for investment into the cooperative was shifted to provide direct support to cooperative members to survive the immediate impacts of COVID-19, which severely impacted the finances of the cooperatives.

Interviews with cooperative leaders indicate that they have experienced decreases in cooperative membership, which is reportedly due primarily to COVID-related illness and death, as well as individual beliefs that the primary cooperative would not be able to link their farming products to buyers or get higher prices for their products during the pandemic. Interviews with cooperative members also indicate that side selling has increased in response to the limited markets and market volatility, as cooperative members do not want to delay selling or miss a sale opportunity to sell in bulk through their cooperative. Interviews report that women were more impacted than men because women must take care of the family and do not have direct access to household finances, and that the family care burden has increased as household members are more often at home.

The impact of COVID-19 is particularly severe in Rwanda, due to consistent and stringent lockdown restrictions. These restrictions included curfews, limited or entirely prohibited movement between districts, meeting size restrictions, etc. CD4 staff indicate that travel restrictions were enacted nationally from March to June 2020, mid-December to mid-March 2021, and end of June to beginning of August 2021. The extent of nationally mandated government restrictions is unique, and significant. These restrictions caused delayed and limited trainings, meetings, and organizational processes, with a few reports that union decision making, and elections could not take place because of lacking the required quorum.

Additional support to cooperatives and unions in response to COVID-19 is needed. Interviews with cooperative members, cooperative staff leaders, and union staff generated recommendations that CD4 should support

²⁷ COVID-19: Impact on Agricultural Cooperatives. Reports from all four rounds of data collection as well as final reports can be found online: <https://www.landolakesventure37.org/insights-hub/covid-19-impact-on-agricultural-cooperatives>

cooperatives financially to help mitigate COVID-19, support cooperative members with cash, link cooperative members to finance, link cooperatives to markets, and provide transportation to move cooperative products into new and non-local markets.

Extent to which CD4 has adapted to mitigate COVID impacts on programming.

Interviews with program staff indicate that CD4 ceased activity implementation in March 2020 in immediate response to COVID-19, due to a Venture37 health and safety policy across the programs. From March 2020 – January 2021 the CD4 program underwent a period of adjustment in which program staff focused on how to safely continue programming in the context of COVID-19 and the related government restrictions. During this period CD4 developed new training sessions in response to the anticipated impacts of COVID-19 on the supported cooperatives and unions. These sessions included information on establishment of emergency funds at the cooperative level, training on how to deal with external shocks in the future and how to establish strategies to recover losses. Interviews with CD4 staff also indicate that CD4 is in the process of developing a performance-based grant that would provide cooperative funds to help recover COVID-19 related income losses. Funds are expected to be dispersed starting in 2022; however, only a limited number of cooperatives will receive this funding. CD4 are currently in the process of developing the selection criteria.

CD4 was also able to continue advisory support to cooperatives and unions through the district-based union advisors. Even during periods in which COVID-19 related restrictions limited or prohibited movement between the districts and CD4 staff could not travel directly to visit all the supported cooperatives, the union advisors could.

In January 2021, all-CD4 supported cooperatives in Rwanda received a laptop and projector, and all but one of the cooperatives received remote training sessions. CD4 staff report that the one cooperative that did not participate in remote trainings was comprised of older cooperative members who could not effectively utilize the technology. The first training session was conducted in-person and focused on how to use the new technology. CD4 coaches walked cooperative leaders through how to use the laptops, how to use Microsoft Teams, Skype, and training software, and assessed which platforms each cooperative would be able to utilize easily. A few of the CD4 supported cooperatives were able to utilize the software quickly because they had accountants who were already familiar with computers and the online platforms being used. Tele-coaching (remote coaching) was conducted live with one cooperative at a time. Coaches maintained contact with the cooperatives one time per week throughout this period. Interviews with cooperative leaders and CD4 staff indicate that in-person training is preferred, but this model worked well within the given context. Interviews with CD4 coaches who provided the trainings indicated that there were many issues with the remote system, including limited connectivity, lack of technology literacy amongst participants, and frustration that the content of sessions was limited because of the modality.

As a result of government restrictions and COVID-19 related delays, CD4 staff indicate that the cooperative training curriculum had to be condensed into a three-month period, and activities that could be trained remotely were prioritized. The curriculum had been designed to be implemented over seven or eight months, to allow cooperatives to fully intake and implement the training content. To condense the curriculum, CD4 implementers report decreasing the content, to streamline the training and make it possible to complete within the shorter period. CD4 has still conducted trainings on governance and management, financial management and accounting, and business development (including linkage to markets, collective selling, contract negotiation and new service creation).

Overall, CD4 staff indicate that they anticipate all training topics originally planned can be covered before program closure, and the adjustment is more so on the timing of when trainings will take place moving forward. CD4 has already taken steps to mitigate this via hiring two firms, Africa Development Consultants and Inkomoko Ltd., to provide the business development services trainings, which include the following topics: linkage to markets, collective selling, contract negotiation, and new service creation. CD4 took this measure after getting feedback from the hired coaches that it would not be possible to cover all content without additional support. CD4 staff report that this is resulting in strong results and will continue in the next year.

Malawi Results and Findings

CD4 programming in Malawi supports primary cooperatives in two value chains: dairy and horticulture. Programming provides direct support to two dairy cooperatives and four horticulture cooperatives which include a total of 1,308 members. Horticulture cooperatives in Malawi do not have a union or federation, whereas dairy cooperatives are supported by a union [REDACTED] and federation (Malawi Milk Producers Association, MMPA). Interviews with [REDACTED] leaders indicate that the union works with 55 primary cooperatives and milk bulking groups.

CD4 is also providing support to a macadamia union, [REDACTED]. Although CD4 does not currently provide direct support to any macadamia cooperatives, CD4 staff indicate there are plans to do so within the next year, by the end of 2022. [REDACTED] macadamia union is a member of the Malawi Federation of Cooperatives (MAFECO). MAFECO is a federation that is not specific to one value chain, but its membership formally includes three unions: [REDACTED] macadamia union, a coffee union, and a union that supports all non-agricultural cooperatives. CD4 is providing support to MAFECO.

Table 26: Membership of CD4 supported Malawi cooperatives

Value chain	Year 1 2019			Year 2 2020			Year 3 2021		
	Total	% female	% youth	Total	% female	% youth	Total	% female	% youth
Overall	1048	65.5%	16.2%	1153	65.2%	17.1%	1308	60.4%	11.9%
Dairy	532	64.1%	8.5%	560	64.1%	9.3%	895	57.4%	10.6%
Horticulture	477	69.0%	26.2%	570	67.7%	25.4%	406	67.2%	15.0%

Cooperative membership has increased for CD4-supported dairy cooperatives from 532 total members in 2019 to 895 in 2021. Interviews with dairy cooperative members indicate that the increase in membership is due to a national government program, AGCOM (The Malawi Ministry of Agriculture, Agriculture Commercialization Project), which has recruited thousands of new members to dairy unions and cooperatives.

Interviews with cooperative leaders and members indicate that more women are participating in dairy cooperatives compared to men. Interviewees reported that this is because women are perceived to be more focused and motivated to participate in activities, and because there are international NGOs who provide dairy cows to female cooperative members. This is reflected in available membership data, which show that more than half of dairy cooperative members are women, and which remains true even though the percentage of female dairy cooperative members has decreased from 64.1% in 2019 to 57.4% in 2021. This does not indicate that female members are leaving dairy cooperatives, but it does indicate that the observed increase in dairy cooperative membership includes more male than female new members.

In 2019 CD4-supported dairy cooperatives report 8.5% of their membership were youth, which increased to 10.6% in 2021. Interviews with dairy union leaders indicate that the overall percentage of youth dairy cooperative members is relatively low, because dairy production has a high initial investment cost to participate, which many youth cannot afford.

CD4-supported horticulture cooperative membership increased from 477 total members in 2019 to 570 in 2020, then decreased to 406 total members in 2021. Interviews with horticulture cooperative members and leaders indicate that there are more female members than men. This is reflected in the membership data, which show the percentage of female horticulture members remained steady (69.0% in 2019 to 67.2% in 2021) despite the decrease in membership. However, the percentage of youth members decreased from 26.2% of members in 2019 to 15.0% in 2021. This indicates that youth are more likely to have left the horticulture cooperatives, contributing to the observed decrease in membership. Interviews with horticulture cooperative leaders and members indicate that there is low youth participation in cooperative activities because youth expect more immediate benefits and perceive farming activities as slow business with delayed returns.

This section addresses Research Question 1: To what extent are project-supported apex bodies better able to meet the evolving needs of their members?

Apex Support to Members

Union support to members. The extent of union support provided to cooperative members differs by value chain in Malawi. Because horticulture cooperatives do not have a supporting union or federation in Malawi, the evaluation of the extent of union support to members in this report includes an assessment of the dairy and macadamia value chains. Because CD4 does not currently provide support to any macadamia primary cooperatives, data on the macadamia value chain is limited to only include what the union directly provided.

CD4-supported dairy cooperative members reportedly increased their awareness of the dairy union, ██████████ from 52.9% in 2019 to 71.7% in 2021 of members reporting awareness of the union. The majority of both CD4-supported and comparison cooperative members report awareness of ██████████ dairy union in 2021, indicating that ██████████ dairy union has a strong presence in its operational region in Malawi.

Table 27: Percent of respondents reporting awareness of Union in Malawi

Value chain	Year 1 2019	Year 2 2020 ²⁸	Year 3 2021	
	Program	Program	Program	Comparison
Dairy	52.9%	n/a	71.7%	72.0%

CD4 reported data on the dollar value of services provided by CD4-supported unions show that the dairy union, ██████████, provides more diverse and engaged services to its members compared to the macadamia union, ██████████, which provides more limited (and lower cost) services to members. Data on the value of services provided to union members in Malawi was not captured before 2021, thus, a comparison over time is not possible. The reported dollar value of services that ██████████ macadamia union provides to members in 2021 is \$9,543 while ██████████ dairy union reports \$23,033 (see Table 28). This reflects the higher number and higher cost of services the dairy union provides to cooperative members.

Table 28: Malawi union value of services provided at midterm (USD)

Type	Value Chain	Union	Value of Services 2021 (USD)
Union	Macadamia	██████████	\$9,543
Union	Dairy	██████████	\$23,033
Union total (USD)			\$ 32,576

Interviews with dairy cooperative leaders indicate that that ██████████ dairy union provides cooperatives with an array of services, including: loans from the union for inputs such as medicines and vitamin supplements; providing cooperatives with dairy cows; providing artificial insemination services; training opportunities; and acting as a channel for members to express concerns to the dairy federation. This is supported by CD4 monitoring data which shows that the extent to which dairy cooperative members report that ██████████ provides buyer identification and price negotiation, inputs, and training has increased in 2019. The extent to which ██████████ dairy union has provided advocacy to their members has decreased in 2021, but it is still higher compared to comparison cooperatives. The extent to which CREMPA dairy union facilitates conflict resolution between member cooperatives is lower for CD4-supported cooperatives (1.8%) compared to comparison cooperatives (11.1%), indicating there may be more conflict between non-CD4-supported cooperatives that require union intervention/support to resolve.

²⁸ Awareness of union data not collected in Malawi in 2020

Table 29: Percentage of dairy cooperative members reporting services provided by their union in Malawi

Service Provided by the union to dairy cooperative members in Malawi	Year 1 2019	Year 2 2020	Year 3 2021	
			Program	Comparison
Identify buyers and negotiates prices	32.4	n/a	37.5	31.1
Provide Inputs	45.9	n/a	62.5	62.2
Advocacy	5.4	n/a	1.8	0.0
Provide Training	40.5	n/a	60.7	64.4
Conflict Resolution Between Cooperatives	2.7	n/a	1.8	11.1

Interviews with dairy cooperative leaders also indicate that [REDACTED] is providing support to Milk Bulking Groups (MBGs) to develop proposals for AGCOM and other donor funding. Most dairy cooperatives interviewed at midterm are MBGs that provide a similar but non-identical service as a dairy cooperative to dairy producers. MBGs are an essential part of the dairy supply chain in Malawi, providing facilities for bulk handling, storage, and collection of milk prior to uplift by the dairy processors. Interviews with CD4 staff indicate that these groups receive the same support that dairy cooperatives do from the program. Dairy union leaders indicate that they directly help implement CD4 governance trainings to their member cooperatives, although this is limited to the cooperatives that are members of [REDACTED] who are also supported by CD4 directly.

In field interviews with the macadamia union, [REDACTED], union leaders reported that they provide support to their member cooperatives that includes raising tree nurseries from which cooperatives can purchase saplings, and sourcing loans for cooperatives from formal financial institutions (the union does not provide loans directly), and provision of a collective market for horticultural products. [REDACTED] leaders also report that there have been improvements in the union relationship with their member cooperatives, with increased confidence in union leadership after CD4 governance trainings. Interviews with [REDACTED] personnel found that macadamia union staff continue to face problems over access to resources, and they are unable to provide sufficient support to all their member cooperatives as a result.

Social Capital and Perceived Value. Data for cooperative member perceived value of the services provided by their unions was collected in 2019 and 2021 (not 2020, due to COVID-19 related movement constraints). In the case of CD4-programming in Malawi, this measure reports the perceived value of services provided by dairy apex bodies only, because horticulture cooperatives do not have apex bodies to gain services from, and because data was not collected from macadamia cooperative members.

The perceived value of essential services provided by dairy apex bodies to their cooperative members increased from 0.13 in 2019 to 0.22 in 2021, and the difference was statistically significant. The perceived value of non-essential services scores are quite low overall, but have increased slightly from 0.03 in 2019 to 0.08 in 2021, also a statistically significant change. This indicates that dairy apex bodies are providing more essential services than non-essential services, but that the average quality and number of services provided for both essential and non-essential services increased over time. When comparing CD4 supported coops with comparison coops, the PV scores for apex bodies were not statistically different for essential services, but they were statistically higher for non-essential services, though the level of the difference was small, at only 0.8 for program coops vs. 0.5 for the comparison coops.

Table 30: Malawi Perceived Value Scores of Services provided by Apex Bodies by surveyed coop members

Malawi perceived value index components for Dairy apex bodies*	2019	2020	2021	
	Program	Program	Program	Comparison
Essential Services				
Quantity of essential services provided score (0-1)	0.27	<i>n/a</i> ²⁹	0.34	0.31
Mean quality of essential services provided score (0-1)	0.28	<i>n/a</i>	0.55	0.47
Perceived value score of essential services (0-1)	0.13	<i>n/a</i>	0.22**	0.18 (NS)
Non-Essential Services				
Quantity of non-essential services provided score (0-1)	0.11	<i>n/a</i>	0.16	0.14
Mean quality of non-essential services provided score (0-1)	0.28	<i>n/a</i>	0.55	0.47
Perceived value score of non-essential services (0-1)	0.03	<i>n/a</i>	0.08***	0.05**
SAMPLE SIZE (Number of farmers in SCPV survey who said they knew the apex orgs and so were asked detailed questions about them)	41	<i>n/a</i>	56	45

NOTE 1: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the full PV score, not for the quantity and quality of service sub-components of this score.

The impact of apex body support to their members is also measured in changes to the “behavioral” and “structural” social capital built between and among the groups. Refer to the Methodology section or to Annex 9 for more details on the meaning of these scores and how they are calculated.

Overall, behavioral domain scores for dairy apex bodies increased from 0.54 in 2019 to 0.83 in 2021 a result that was statistically significant to the 99% level of confidence. Comparison cooperatives had a higher overall behavioral domain score for apex bodies compared to CD4-supported cooperatives (statistically significant to the 95% level), which indicates that comparison cooperatives in Malawi have greater confidence in the apex bodies compared to the CD4-supported cooperatives. These results indicate that dairy apex bodies have increased their cooperative members’ perceptions that they represent members’ interests and can effectively manage their business operations.

Table 31: Malawi Behavioral Domain Score (0-1) for Apex Organizations

Value chain	2019	2020	2021	
	Program	Program	Program	Comparison
Behavior Domain Score for Dairy Apex Bodies	0.54	No data	0.83***	0.89**

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

Apex body structural domain scores are quite low for both CD4-supported and comparison coops in the dairy sector, indicating that federation and union members do not engage directly with the union or federation much. This aligns with interview findings with cooperative leaders indicating that cooperative leaders do not have a direct connection or method to contact their union or federation. However, the score did increase from 0.05 in 2019 to 0.17 2021, a difference that was significant to the 99% level. For this metric there was no statistical difference between comparison versus program cooperatives.

²⁹ Malawi 2020 perceived value scores data not collected

Table 32: Malawi Structural Domain Score (0-1) for Apex Organizations

Value chain	Year 1 (2019)	Year 2 (2020)	Year 3 (2021)	
	Program	Program	Program	Comparison
Structural Domain Score for Dairy Apex Bodies	0.05	No data	0.17***	0.13 (NS)

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

Federation support to members. Interviews with [REDACTED] and MMPA indicate that there are direct linkages between the [REDACTED] dairy union and MMPA dairy federation. Interviews with primary cooperative members indicate that there is limited direct connection between the primary cooperative members and MMPA directly. Data indicate that less than half (41.3%) of CD4-supported dairy cooperative members report awareness of the dairy federation in Malawi, although reported awareness has improved since 2019 (see Union Services Provided to Members

Table 54). CD4-supported dairy cooperative members are much more likely to report awareness of the dairy federation compared to comparison cooperative members.

Table 33: Percent of respondents reporting aware of Federation in Malawi from 2019 to 2021

Value chain	Year 1 (2019)	Year 2 (2020)	Year 3 (2021)	
	Program	Program	Program	Comparison
Dairy	15.7%	n/a ³⁰	41.3%	24.0%

KIIs with program staff found that the CD4 program team has a strong relationship with the dairy federation MMPA. CD4 has collaborated with MMPA to support a milk consumption campaign to increase market share and supported the Dairy Development Platform (DIDP). MMPA chairs the DIDP which includes all stakeholders in the dairy value chain in Malawi. Interviews with MMPA staff indicate that this campaign helped MMPA gain recognition within the cooperative sector, which has strengthened the extent to which they are able to fulfill its role within the sector and is a positive result of CD4 program support to the campaign. Interviews with MMPA staff indicate that their role is focused on strengthening capacity of milk cooperatives, promoting milk consumption, advocating to the national level to provide input on milk policies and programs, helping facilitate cooperative market access and business development, and overseeing implementation of dairy activities in Malawi.

Interviews indicate that MMPA increased its negotiating power since 2019 and achieved an increase in the price of milk, resulting in more profit for member dairy producers. CD4 staff report this is a result of CD4 support to MMPA, which led to increased trust and relevance of MMPA at the national and cooperative levels. MMPA staff report the federation is capable and responsible for resolving member conflict, but there have not been any conflict resolution requests in the last three years. KIIs found that the dairy federation provides technical assistance to unions for proposal writing and capacity building and is involved with national-level milk marketing assistance. Midterm field interviews indicate that MMPA's role has grown during COVID-19, through advocacy to enable producers to sell milk at market during COVID-19 restrictions and allow veterinarian shops to continue to sell drugs important to dairy animals.

Interviews with MMPA indicate that CD4 activities have directly impacted the performance of dairy cooperatives and unions via trainings on improved milk hygiene practices, bulking practices, and artificial insemination. MMPA indicates that CD4 activities have led to an increase in the number of artificial insemination technicians in cooperatives. This is also reflected in interviews with CD4 coaches and cooperative members.

Midterm qualitative data found that MMPA experiences multiple challenges including a lack of financial capacity and financial support from the government, limited reach to federation members, disadvantageous milk processing plant locations, government policies that are not conducive to local dairy farmers, and a comparatively low number of dairy animals owned by dairy producers in Malawi overall. MMPA reports that there is limited capacity to reach all cooperatives in Malawi and provide strong support sector-wide due to resourcing limitations, as they have limited

³⁰ Malawi data not collected in 2020

budget and milk processors are not concentrated in specific geographical areas. The dairy sector is still relatively new in Malawi, and interviews with MMPA and CD4 representatives report that cooperative policies are still being drafted and are not yet formalized.

MAFECO is a federation that supports agricultural unions and federations in Malawi. They are in the process of positioning themselves to become the federation of all federations in the country, but currently support only 3 out of 13 major unions/federations (their current active members include coffee union, horticulture union and financial cooperatives union). MAFECO provides support to member-unions via price negotiation and coordination with private companies to identify market opportunities and set prices. The [REDACTED] macadamia union leaders report that they have regular board meetings with MAFECO, which allow for information to be shared directly between the union and federation, and that MAFECO has supported them in price negotiation with private nut companies.

This section addresses Research Question 2: To what extent has the business performance of project-supported apex bodies and primary cooperatives improved?

Business Performance

Cooperative Business Performance

In this section, we examine multiple direct measures of cooperative business performance like revenues earned, income distributed to members, and equity generated. But we also look at more general measures of cooperative capacity and strength, which are expected to contribute to financial performance. This includes metrics around management capacities from the PM2 survey, estimated value of services provided to coop members, perceived value of those services as rated by coop members, and more general measures of social capital of the cooperatives. These results for social capital and perceived value might have better fit into a research question “To what extent are project-supported primary cooperatives better able to meet the evolving needs of their members,” analogous to this section above for Apex bodies. However, that was not one of the pre-defined questions for this Midterm report, so we have put the information into this section instead.

The extent to which cooperative business performance has improved in Malawi is difficult to quantify due to a lack of data collected in 2019 and/or 2020 for multiple indicators. CD4 staff note that data was not collected in 2019, because before CD4 programming began cooperatives had poor financial record systems which resulted in a lack of available accurate data. Then, the data was also not collected in 2020, this time because of constraints due to COVID-19 related lockdowns. Quality financial data was collected in 2021 and required CD4 to hire a financial consultant who was responsible for training and assisting CD4-supported cooperatives to prepare their financial documents and record keeping. Although there is no quantitative data from earlier years for comparison, interviews with Malawi cooperative leaders, CD4 field agents and staff indicate that cooperative business performance has significantly improved since 2019.

PM2 data collected at midterm shows that five out of six project supported cooperatives have score improvements from 2019 to 2021. Three cooperatives show substantial improvement, meaning a PM2 score increase of at least 0.25, based on outcome indicator criteria. Only one horticulture cooperative in Malawi did not see improvement, as the PM2 remained the same in 2019 and 2021.

The detailed PM2 scores (see Annex 10) show that overall horticulture cooperatives in Malawi increased the average PM2 score from 2019 to 2021 and showed improvement in four out of the six PM2 topic areas. The topic areas in which horticulture cooperatives saw a decreased overall PM2 score from 2019 to 2021 are in the areas of adaptive capacity (2.04 in 2019 to 2.00 in 2021) and supply, processing, and marketing (2.15 in 2019, 1.83 in 2021). Both components were directly affected by the impacts of the ongoing COVID-19 pandemic.

This same trend is observed in the average overall PM2 scores for dairy cooperatives, which show that all topic areas except for supply, processing and marketing saw improved PM2 scores from 2019 to 2021. Market disruptions due to COVID-19 had significant impacts on the horticulture and dairy value chain marketing and supply chains.

PM2 results collected and calculated by CD4 staff is presented in Table 34 below.

Table 34: CD4 supported primary cooperatives in Malawi PM2 scores over time

Type	Value chain	Name	Year 1 score (2019)	Year 2 score ³¹ (2020)	Year 3 score (2021)	Improvement Y1 to Y3*
Cooperative	Horticulture		2.03	n/a	2.04	Improved
Cooperative	Horticulture		1.52	n/a	2.10	Substantially Improved
Cooperative	Horticulture		2.32	n/a	2.32	Maintained
Cooperative	Horticulture		1.60	n/a	2.07	Substantially Improved
Cooperative	Dairy		1.86	n/a	2.72	Substantially Improved
Cooperative	Dairy		2.34	n/a	2.46	Improved
Number of improved cooperatives						5

*Substantial Improvement defined as an increase in PM2 score from baseline to current year of at least 0.25 points (out of a total possible of 4 points)

Cooperative Support to Members. Interviews with cooperative members and leaders indicate that substantial improvements to cooperative governance have occurred since baseline. Cooperative governance has improved, with more member participation in organizational decision making, greater inclusion of female members, increased access to cooperative leadership positions, and more transparency in cooperative operations. Interviews with CD4 staff and cooperative leaders indicate that this is due to direct support provided through governance and financial management trainings provided by CD4. PM2 score data shows that four cooperatives have improved organizational governance from baseline to midterm, nearly achieving the project end target of five cooperatives with improved governance.³² Cooperative coaches who have worked with the cooperatives since baseline report that governance trainings have helped members to change unpopular policies, produce business and strategic plans, standardize reporting and recordkeeping, and establish new constitutions that more accurately reflect member interests.

The monetary value of services provided by horticulture cooperatives ranges from \$6 USD to \$262 USD. The value of services provided by dairy cooperatives is higher, ranging from \$752 USD to \$2,066 USD, due to the higher cost associated with necessary dairy equipment such as cooling tanks.

Table 35: Malawi primary cooperative value of services provided at midterm (USD)

Value Chain	Name	2021 Value of Service (USD)*
Horticulture		\$166
Horticulture		\$262
Horticulture		\$6
Horticulture		\$23
Dairy		\$752
Dairy		\$2,066
Cooperative total (USD)		\$ 3,275

*Data not collected prior to 2021

Data on the dollar value of services provided by the cooperative to members was not collected prior to 2021; however, at midterm, the dollar value of services provided by cooperatives in Malawi is dramatically lower compared to those in Rwanda. CD4 staff indicate this could be because the cooperative membership fees are much lower in Malawi compared to Rwanda. Cooperative members reported their membership fee costs in qualitative interviews at midterm, as shown in the table below.

³¹ Malawi cooperative revenue data was not collected in Year 1 and Year 2.

³² Improved cooperative governance data not collected in 2019 or 2020.

Table 36: Malawi cooperative membership fees in Malawi Kwacha and USD by value chain

Value Chain	Malawi Kwacha	USD
Dairy	7,000 – 10,000 (Registration Fee 1,500 – 1,000)	\$9 - \$12 (Registration Fee \$1 - \$2)
Horticulture	5,000 – 7,000	\$6 - \$9

Dairy cooperative members in Malawi indicate that their annual membership fees range from \$9 - \$12 USD per year, with an initial registration fee of an additional \$1 - \$2 USD. By contrast, in Rwanda, dairy cooperative members report an annual membership fee between \$29 and \$65 USD (see Table 19). Horticulture cooperative members in Malawi indicate their annual membership fees range from \$6 - \$9 USD, whereas in Rwanda, horticulture cooperative members report paying \$59 - \$119 USD (see Table 19). This is also reflected in CD4 survey data, which show that the percentage of cooperative members reporting that their cooperative provides important services is significantly lower than that in Rwanda. This indicates that cooperatives in Rwanda are collecting more revenue in membership fees and providing a higher number of services to their members compared to those in Malawi. Cooperatives in Malawi are cited in qualitative interviews as valuable sources for knowledge sharing and support to implement improved and quality practices. The majority of surveyed CD4-supported dairy and horticulture cooperative members in Malawi indicate that their cooperative provides training (75.2%), identifies buyers, and negotiates prices (65.1%), and provide inputs (50.4%). The extent to which cooperatives in Malawi provide training for their members is higher for CD4-supported cooperatives than for comparison cooperatives across all value chains. CD4-supported cooperatives are also more likely than comparison cooperatives to provide quality verification, identify buyers and negotiate prices, and provide storage facilities to their members across value chains. A detailed table of services provided by cooperatives value chain is included in Appendix 2, Table 53.

Table 37: Percentage of cooperative members reporting cooperative services provided to members in Malawi

Cooperative services provided to members in Malawi	Year 1 2019	Year 2 2020	Year 3 2021	
			Program	Comparison
Quality Verification	12.3	n/a	14.7	3.9
Identify buyers and negotiates prices	57.2	n/a	65.1	50.0
Provide storage facilities	26.8	n/a	27.1	15.8
Provide Inputs	25.4	n/a	50.4	71.1
Provide Training	75.4	n/a	75.2	60.5
Links to Financial Services	15.2	n/a	15.5	6.6
Loans for Inputs	23.2	n/a	26.4	21.1
Conflict Resolution Among Members	7.2	n/a	2.3	11.8

Social Capital and Perceived Value. Midterm data show that the cooperative member perceived value score of essential services increased from 0.26 in 2019 to 0.31 in 2021, a statistically significant difference at the 95% level. This was driven by an increase in both the quality and quantity of essential services increased during this period. The perceived value score for non-essential services saw a smaller change, from 0.17 in 2019 to only 0.19 in 2021, though this was actually also statistically significant to the 90% level. CD4-supported cooperatives also report higher perceived value of both essential and non-essential services compared to comparison cooperatives, and both differences are significant to the 99% level. Both CD4 and comparison cooperatives report higher scores for the quality of services provided than for the quantity of services provided, which indicates that although cooperatives in Malawi are proving a fewer number of services to their members, the services provided are of good quality.

Table 38: Malawi Perceived Value Scores of Services Provided by Primary Cooperatives

Malawi perceived value index components for primary cooperatives	2019	2020 ³³	2021	
	Program	Program	Program	Comparison
Essential Services				
Quantity of essential services provided score (0-1)	0.24	n/a	0.27	0.17
Mean quality of essential services provided score (0-1)	0.67	n/a	0.77	0.62
Perceived value score of essential services (0-1)	0.26	n/a	0.31**	0.22***
Non-Essential Services				
Quantity of non-essential services provided score (0-1)	0.20	n/a	0.22	0.18
Mean quality of non-essential services provided score (0-1)	0.83	n/a	0.85	0.84
Perceived value score of non-essential services (0-1)	0.17	n/a	0.19*	0.15***
SAMPLE SIZE (number of farmers given the SCPV survey)	138	n/a	129	76

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the full PV score, not for the quantity and quality of service sub-components of this score.

Cooperative performance is also measured through changes to “behavioral” and “structural” domains of social capital (see Methodology section or Appendix 9 for more details on the meaning and calculation method for these indices)..

The behavioral domain score increased for cooperatives aggregated across dairy and horticulture from 2019 to 2021 (0.62 to 0.8), and CD4-supported cooperatives reporter higher scores compared to comparison cooperatives (0.8 vs. 0.71), with both these differences statistically significant to the 99% level.

Table 39: Malawi Behavioral Domain Score (0-1) for Primary Cooperatives from 2019 to 2021

Value chain	2019	2020	2021	
	Program	Program	Program	Comparison
Overall	0.62	No data	0.80***	0.71***
Dairy	0.64	No data	0.83	0.76
Horticulture	0.61	No data	0.78	0.61

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

Overall structural domain scores increased slightly between 2019 and 2021, from 0.33 to 0.4, a statistically significant increase. However, there was no statistical difference between comparison and program cooperative structural domain scores in year 3.

Table 40: Malawi Structural Domain Score (0-1) for Primary Cooperatives

Value chain	2019	2020	2021	
	Program	Program	Program	Comparison
Overall	0.33	No data	0.40***	0.40 (NS)
Dairy	0.42	No data	0.57	0.49
Horticulture	0.28	No data	0.31	0.23

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

Although the social capital scores change over time are minimal, it is important to note that the behavioral and structural domain scores for primary cooperatives are much higher compared to apex body scores. This indicates that the extent to which social capital, defined as “the capital of cooperation, joint action, mutual trust, and mutual

³³ Essential and non-essential services data not collected in Malawi in 2020

assistance, which are formed in the course of economic relations between individuals”³⁴ is more present within primary cooperatives, rather than between primary cooperatives and their apex bodies, which is reflected throughout the qualitative data. This is also reflected in the perceived value of services scores, which are higher for primary cooperatives (0.31 in 2021) than for apex bodies (0.22 in 2021).

Table 41: Comparison of social capital scores for apex bodies versus primary cooperatives overall domain scores in Malawi

Domain score type	Type	2019	2020	2021	
		Program	Program	Program	Comparison
Behavior Domain Scores	Apex Bodies	0.54	No data	0.83***	0.89**
	Cooperatives	0.62	No data	0.80***	0.71***
Structural Domain Scores	Apex Bodies	0.05	No data	0.17***	0.13 (NS)
	Cooperatives	0.33	No data	0.40***	0.40 (NS)

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021.

Cooperative members were asked how likely they are to recommend their primary cooperative to other producers on a scale of one to ten, one being not at all likely and ten being highly likely/definitely. Across value chain in Malawi, this likelihood increased from 6.5 in 2019 to 7.9 by 2021, a statistically significant result to the 99% level of confidence. However, there was no statistically difference between this likelihood for program vs. comparison cooperatives. The level of likelihood of recommending the cooperative is higher for horticulture program vs. control cooperatives, but the opposite is true for the dairy cooperatives, which is why at an aggregated level there is no difference.

Table 42: Malawi cooperative members reported likelihood to recommend primary cooperative (1-10)

	2019	2020	2021	
	Program	Program	Program	Comparison
Malawi Total	6.5	N.A	7.9***	7.9 (NS)
Dairy	6.0	N.A	7.8	8.2
Horticulture	6.8	N.A	7.9	7.2

NOTE: Statistical significance of the differences are denoted by: NS = not significant, * = 90%, ** = 95%, ***=99%. For Program 2020 and Program 2021 the difference is in reference to Program 2019. For Comparison 2021 the difference is in reference to Program 2021. These comparisons were only made for the total score across value chains, not for the disaggregates by value chain

Cooperative Financial Performance. Cooperative revenue data was not reported in 2019 or 2020³⁵, so it is not possible to determine change in cooperative financial performance since baseline. However, interviews with cooperative leaders indicate that financial management and recordkeeping has improved since baseline, largely due to CD4 financial management trainings. Field interviews with cooperative members and staff found that CD4 financial management trainings for cooperatives have led to regular record keeping processes, augmented member understanding of the treasurer’s role, frequent updates on cooperative finances, the development of finance committees, and higher transparency of cooperative financial management.

Interviews with CD4 staff indicate that collecting reliable revenue data from cooperatives in Malawi was extremely difficult or not possible prior to 2021. As a result of CD4 financial management trainings, financial record keeping, accurate financial data reporting was made possible for the first time in 2021. This took place through a process CD4 staff and coaches refer to as “hand holding” in which financial management coaches worked with each cooperative individually once a week over a six-month period to help them develop and understand how to maintain financial systems. CD4 staff indicate that these cooperatives now have the basics in place, but additional coaching is needed to further develop these financial management and recordkeeping skills. Cooperative leaders are not currently able to produce balance sheets or invoices, for example. Additional support is planned in Year 4.

³⁴https://www.researchgate.net/profile/Slobodan_Cvetanovic/publication/282206307_The_concept_of_social_capital_in_economic_theory/links/5655775508ae1ef9297720e5/The-concept-of-social-capital-in-economic-theory.pdf

³⁵ Data not collected or reported missing in CD4 monitoring indicator calculations and reporting.

Table 43: Malawi cooperative revenue (USD) by value chain in 2021³⁶

Value Chain	Cooperative name	Year 1 (Financial docs from 2018)	Year 2 (Financial docs from 2019)	Year 3 (Financial docs from 2020)
Horticulture		n/a	n/a	\$4,332
Horticulture		n/a	n/a	\$2,268
Horticulture		n/a	n/a	\$678
Horticulture		n/a	n/a	\$0
Dairy		n/a	n/a	\$0
Dairy		n/a	n/a	\$190,949
Total cooperative revenue (USD)				\$198,227

Internal project documents indicate that the lack of revenue for [REDACTED] in Year 3 is due to the breakdown of their cooling tank that forced the group to stop bulking milk in late in 2019. The cooling tank is still under repair and outside of the CD4 project scope, but CD4 staff are hopeful that [REDACTED] will complete repairs and generate some revenue by the end of 2021. Program staff report that COVID-19 delayed CD4 coaching and support that may have helped repair the cooling tank quicker.³⁷ CD4 staff indicate that [REDACTED] cooperative also earned no revenue, because the cooperative members all sold their produce independently and did not do collective marketing. CD4 staff have been coaching the cooperative to begin collective marketing and expect that this will start and be reflected in positive cooperative revenues starting in 2021.

Impact of CD4 Activities on Cooperative Business Performance. Field interviews with members and leadership from cooperatives and unions found that most project participants perceive governance trainings to be one of the most valuable CD4 programming activities. Project participants report that governance trainings have resulted in the implementation of majority rule for leadership elections of cooperative decision making, use of ballots to ensure confidentiality during elections, increased access to leadership positions for men and women members, and increased member engagement in organizational decision making. In key informant interviews, CD4 cooperative trainers report that the primary impact of governance trainings is knowledge empowerment around the roles and responsibilities of cooperative personnel and different organizational processes. CD4 training coaches report that initial governance trainings lay the foundation of cooperative effectiveness by instructing on the roles and responsibilities of cooperative members, body rules, member rights, and actions that can be employed to initiate cooperative-level change. Cooperative trainers report that governance trainings have helped members change unpopular policies, produce business and strategic plans, standardize reporting and recordkeeping, and establish new constitutions that more accurately reflect member interests.

Interviews with cooperative members and leaders find these groups attribute improved cooperative business performance to CD4 governance and financial management trainings, which are carried out in two ways: 1) directly to cooperative members or 2) by training union members who then train dairy cooperatives. CD4 staff report that the method of activity delivery depends on the body type, as unions receive explicit trainings designed for specific purposes, but cooperatives receive support via coaching described as “hand holding” through with CD4 cooperative specialists/coaches work with the cooperatives on all aspects of cooperative management and operations.

Interviews with MMPA, cooperative leaders and members indicate that CD4 training is causing a mind-set change for dairy farmers to treat dairy as a business, which is motivating new and continued investment into improving cooperative business performance.

Qualitative research also suggested that some more technical training and support from CD4 has had valuable effects. Interviews with dairy cooperative members find that CD4 is supporting dairy cooperatives in providing artificial insemination (AI) trainings to train AI technicians and providing AI kits to cooperatives and members. Interviews with

³⁶ Malawi cooperative revenue data was not collected in Year 1 and Year 2.

³⁷ CD4 Finance Data Debrief 22 September 2021

MMPA staff found that CD4-supported artificial insemination activities have increased the number of artificial technicians in cooperatives.

Gender Specific Activities and Impact. Unlike in Rwanda, there are currently no program activities specifically focused on gender topics being implemented in Malawi, and activities under the gender action plan are not being carried over to Malawi programming. CD4 staff indicate that a purposeful decision was made to focus on gender issues in Rwanda and not in Malawi, partly because it was deemed that the work would be more fruitful in Rwanda (due to a strong government commitment to gender equality), and partly because building the basic capacities of the relatively weaker cooperatives in Malawi was deemed a higher programmatic priority for that country. Limits on budget and staff time, as well as concerns about the capacities of the cooperatives and their members to engage with too many different initiatives in a short period, contributed to this prioritization decision. The 2019 gender assessment, which led to the gender action plan, focused on Rwanda and was tailored to that context, thus, activities included within would not be directly relevant to the Malawi context. Based on qualitative data and observed increases in the operational capacity of CD4-supported cooperatives in Malawi, the prioritization to focus on improving the core capacities of cooperative operations has led to positive results since 2019.

Although there were no formal gender trainings, the CD4 program set target goals to achieve gender balance in its events and programming provided to cooperative members (50% female participation/attendance). In Year 1 33% of attendees of trainings in Malawi were female. In Year 2 the percentage of female training attendees increased to 58%. Although this decreased to 47% in Year 3, nearly meeting the goal of 50% female attendees and was significantly higher than the result for Rwanda (38%) in that year. In Rwanda, this low number is due to compliance to COVID-19 in-country restrictions that required the project team to considerably reduce the number of people attending both the gender trainings as well as managerial coaching sessions.

Challenges to Cooperative Business Performance. Access to finance and investment remains a significant challenge that cooperatives are facing to start and develop their operations. Internal program documents report that insufficient access to finance and investment is a main limitation to cooperative development. Interviews with CD4 cooperative coaches and cooperative leaders support this and assert that insufficient access to finance is a primary barrier for cooperatives, cooperative members, and the current enabling environment.

Field interviews found that MBGs report challenges because they are not registered cooperatives, which makes organizational operations more difficult. MBG members report difficulties accessing dairy cows needed for uptake of milk production activities. CD4 staff indicate that MBGs and cooperatives are receiving the same support from CD4 activities, and that the current operating environment makes formalization of all groups as registered cooperatives difficult: as the sector is relatively new, guidelines are still under development, and not all MBGs produce at a sufficient level to be registered as cooperatives at this stage. Even so, interviews with MMPA indicate that CD4 support is helping to graduate MBGs into registered cooperatives.

Cooperatives reported multiple additional challenges due to the impact of the ongoing COVID-19 pandemic, which are discussed in the COVID-19 Impact section of this report.

Union Business Performance

Union business performance. Union business performance in Malawi has improved since baseline. Interviews with union leaders report that union business performance has improved due to participation in CD4 trainings on governance and financial management. PM2 data quantify this improvement and show that ██████████ macadamia union improved its score from 2.24 in 2019 to 2.84 in 2021 and the dairy union improved its score from 2.23 in 2019 to 2.73 in 2021.

Table 44: CD4 supported unions in Malawi PM2 scores over time

Type	Value chain	Name	Year 1 score (2019)	Year 2 score ³⁸ (2020)	Year 3 score (2021)	Improvement Y1 to Y3*
Union	Dairy		2.23	N/A	2.73	Significantly Improved
Union	Macadamia		2.24	N/A	2.84	Significantly Improved
Number of improved unions						2

*Significant Improvement defined as an increase in PM2 score from baseline to current year of at least 0.25 points (out of a total possible of 4 points)

Interviews with CD4 program staff found the program is prioritizing union capacity strengthening by rolling out activities to increase managerial knowledge, finance, and self-sustainability. CD4 program staff report that increasing union capacity is critical to cooperative development and advancement. KIIs with CD4 staff show that the CD4 program provided capacity building in governance and coaching- to directly support unions to help maintain organizational operations and build the capacity of union staff. Financial data was not collected from either of the Malawi unions in 2019 or 2020, so the change since baseline cannot be quantified. However, interviews with union representatives in Malawi indicate a lack of financial sustainability or stability, which limits the extent to which the union is able to plan long-term or provide adequate support to all members. Interviews with union staff indicate that both unions lack their own business or revenue generating options, which leaves their operations largely dependent on membership fees and donors.

Table 45: Malawi union revenue (USD) by value chain in 2021

Value Chain	Name	Year 1 ³⁹ (2018)	Year 2 (2019)	Year 3 (2020)
Dairy		n/a	n/a	\$92,376
Macadamia		n/a	n/a	\$73,471
Total union revenue				\$165,847

Impact of CD4 Programming on Union Performance. KIIs with union leaders report that the financial management and governance trainings are the most valuable activity provided by CD4. Interviews with CD4 staff indicate that direct support was provided to union bodies via a hired consultant firm, Quest Enterprise Systems, contracted from March 2021 through June 2022. This firm reportedly has the capacity and technical knowledge to provide these trainings to the CD4-supported unions. CD4 provides technical backstopping and ensures all the planned areas are covered in the training content and union strategy planning. CD4 staff indicate that CD4 provides unions with guidance on what can be included in a strategy plan and collaborates through in-person workshops with union leaders and sector stakeholders to develop these action plans.

Field interviews found that CD4 governance and financial management trainings helped [REDACTED] macadamia union board members better understand their roles and responsibilities within the union. Program trainings provided to the [REDACTED] reportedly led to the creation of a finance committee and the development of a strategic plan and annual budget. Interviews show that CD4 training of trainers empowered [REDACTED] to lead capacity building trainings for primary cooperative members. [REDACTED] union staff report that CD4 activities enabled the union to better provide collective markets and distribute agriculture inputs to cooperative groups. CD4 staff report that the [REDACTED] union board had not participated in any governance trainings before, and now as a result of CD4 guidance have developed action plans and pathways for how to align their work with their longer-term visions to achieve the action plans.

Interviews with both dairy and macadamia union staff also indicate that coordination with their member cooperatives has begun to improve, because, as the cooperatives participate in CD4 trainings, they undergo a mindset shift in which

³⁸ Malawi PM2 data was not collected in Year 2.

³⁹ Malawi cooperative revenue data was not collected in Year 1 and Year 2.

they begin to understand cooperative activities are a business. This has increased their commitment and motivation to improve their performance and receive support from the union.

This section addresses Research Question 3: To what extent has project-supported learning and dissemination impacted cooperatives and the cooperative development community's support of cooperatives?

Enabling Environment

CD4-supported learning and dissemination is channeled through the Cooperative Learning Platform (CLP). In Malawi, CD4 has partnered with MAFECO to have direct coordination of CLP events organized by an existing local body to ensure sustainability of the CLP past CD4 program closure. MAFECO and partner institutions including Land O Lakes/Venture37, CNFA-farmer to farmer program, CIC Insurance, Community Savings and Investment Promotion-organization, Cooperative Development Foundation and GIZ funded More Income and Employment in Rural Areas-MIERA program all sit on the steering committee, which is organized to provide input on CLP event topics and implementation.⁴⁰

CD4 staff indicate there have been some difficulties in moving the CLP forward in Malawi, in part because CD4 is currently working with MAFECO to develop their own strategic plan which is still in draft form, and COVID-19 related illness and restrictions have prevented more CLP events from taking place. However, progress has still been made in promoting learning dissemination at the national level. Project monitoring data indicates that the number of learning and/or dissemination events has increased significantly from zero events in 2019 to six in 2021 (see Table 46). Event log data indicates that two CLP events have taken place in 2021, however information on the topics covered during these events is not included. In 2021 the CD4 project in Malawi has also completed three presentations, one conference, and one publication.

Table 46: The number of learning or dissemination events held and/or publications released from baseline to midterm in Malawi

Malawi event type	Year 1 (2019)	Year 2 (2020)	Year 3 (2021)	Total
CLP Event	0	1	2	3
Presentation	0	0	3	3
Conference	0	0	1	1
Publication	0	0	1	1
Total	0	1	6	7

The midterm scorecard workshop in Malawi took place on Thursday, September 2nd, 2021. 14 stakeholders involved in the Malawi cooperative sector were invited to attend, representing Malawi Union of Savings and Credit Cooperatives Limited (MUSCCO), Civil Society Agriculture Network (CISANET), Malawi Assemblies of God University (MAGU), Lilongwe University of Agriculture and Natural Resources (LUANAR), Ministry of Industry, Trade and Tourism (MOITT), [REDACTED] Women Cooperative, GIZ, CNFA, [REDACTED] MBG, and unions representatives. Two CD4 staff members and 6 stakeholders involved in the Malawi cooperative sector attended the midterm scorecard workshop, representing [REDACTED], [REDACTED], MAFECO and MMPA.

Scorecard 1 focused on the level of cooperative sector capacity in Malawi to support cooperative development (see Rwanda section for a more detailed discussion of how this overlaps with but is meant to be distinct from Scorecard 2). Overall, scorecard results show limited progress in this area overall from baseline to midterm, with some progress reported in the governance and structure management of cooperatives and apex bodies and political will and leadership (see Table 47).

⁴⁰ Cooperative Learning Platform Concept Paper. Shared via email November 5th 2021.

Table 47: Malawi Scorecard One results at baseline and midterm

Scorecard 1: Level of cooperative sector capacity (enabling environment) to support cooperative development	Evidence	Baseline score 2019	Midterm score 2021
1.1 Availability and access to information and knowledge sharing (Cooperative development concepts)	Inventory of studies, Evidence and findings disseminated and used Existence of platform for sharing and disseminating information	2	2.5
1.2 Policy, laws, and regulations governing cooperatives are set	Current status of legislation and policies	3.5	3.5
1.3 Sector institutional framework and governance, including coordination across all organizations within the sector	Decisions made by various stakeholders and performance of the sector Institutional analysis of the cooperative sector	2	3
1.4 Governance (Leadership) and structured management of cooperatives and apex	Performance of cooperatives Institutional analysis of cooperatives and apex organizations	2	4.5
1.5 Political will and leadership (lobbying, advocacy)	Public statements made by political leaders and other influential individuals/organizations	2	5

The reported score for the status of cooperative sector governance and structured management of cooperatives and apex bodies increased significantly from a score of 2 at baseline to 4.5 at midterm. The justification for this increase reported by stakeholders is that the organizational structures for cooperatives have improved, but additional support and work is needed to strengthen these structures for apex bodies.

The extent of political will and leadership in the cooperative sector received an increased score from 2 at baseline to 5 at midterm. Stakeholders report that there is strong support for cooperative development in principle, although this has yet to fully materialize.

Internal project documentation shows that drafted changes to the Cooperative Policy, originally passed in 1997, aim to improve support to Malawi's cooperative enabling environment. The original Cooperative Policy contains general guidelines for the cooperative sector, including policies for cooperative education, training, and the cooperative institutional framework.⁴¹ The 2019 baseline evaluation found that the Ministry of Trade and Ministry of Industry, Trade and Tourism registers, organizes, trains, and audits cooperatives but is hindered by limited resources.⁴² According to internal briefs, the revised policy will reduce the workload of the Ministry of Trade by shifting these functions to a cooperative tribunal to settle cooperative disputes fairly and justly among cooperative members and stakeholders in the sector.

The proposed new cooperative policy will create a Ministry of Cooperatives and will establish offices and staff in all Malawi districts, which would represent a significant improvement from the current Ministry that lacks any district offices. The updated policy will also create platforms for stakeholder discussion and interaction at sector, district, regional and national levels.⁴³ The policy update looks to remove regulatory challenges that inhibit growth, by setting guidelines for cooperative establishment, performance standards, a streamlined cooperative registration and deregistration process, and accountability mechanisms.⁴⁴ Interviews with MMPA personnel indicate that the policy could decentralize cooperative development, speed up the process of cooperative registration, and reduce costs associated with cooperative trainings. CD4 staff report that the updates to this policy are based on country wide consultations between the government and CDOs in the cooperative sector, including CD4. CD4 staff as well as primary cooperatives directly participated in these consultations. The policy is currently in draft form and must be validated by formal government procedure at the national level.

Scorecard 2 focuses on the level of support provided to cooperative development in Malawi by the national and international development community. Overall, scores have remained at similar levels since baseline in all areas except

⁴¹ Cooperative Development Policy. Government of Malawi Ministry of Commerce and Industry. June 1997. Accessed online. <https://cepa.rmportal.net/Library/government-publications/Cooperative%20Development%20Policy%201997.pdf/view>.

⁴² TANGO International. 2019. CD4 Baseline Evaluation Report.

⁴³ Policy Update Brief to USAID_FINAL. 2021.

⁴⁴ Policy Update Brief to USAID_FINAL. 2021.

for local community and leadership support, indicating that the level of support provided to cooperative development in Malawi by the wider development community has not changed significantly since baseline (See Table 48).

Table 48: Malawi Scorecard Two results at baseline and midterm

Scorecard 2: Level of support provided to cooperative development in Malawi by the national and international development community	Evidence	Baseline score 2019	Midterm score 2021
2.1 Government financial support to cooperative sector (investments in supporting infrastructure, extension services; subsidies on inputs to cooperatives, etc.)	Conditions of infrastructure and quality of government services Level and form of public investments and how the investments affect (positively or negatively) the cooperative sector.	2	2.5
2.2 Private sector support	Number of buyers and sellers Price trends of relevant products and inputs Information on how effectively markets are regulated Existence of markets that pay premiums for quality	2	1.125 ⁴⁵
2.3 Research community support	Number of research studies addressing issues in cooperative development Number of individuals and units in research organizations that conduct research on cooperative development Levels of funding supporting research on cooperative development Existence of platform or forum for sharing research findings	1	1
2.4 Donor community support	Level of donor funding to support cooperative development Evaluations that assess the effectiveness and sustainability of donor investments in the cooperative sector	2	2.5
2.5 Local community and leadership support	Information about community support to the cooperative sector	2	4

Stakeholders reported the extent of local community and leadership support for cooperative development in Malawi increased from a score of 2 at baseline to 4 at midterm. Stakeholders report this is because there is now strong support to cooperatives from local leaders, who formally recognize cooperative structures. Furthermore, stakeholders indicate that most cooperatives are operating on communal land designated for their use by local leaders. Private sector support also decreased slightly since the baseline. This is reportedly because market accessibility is an ongoing issue, and regulation of market transactions is mostly present for tobacco, tea and coffee which exist in formalized markets. CD4 staff also indicate that wider support has decreased over time as two major cooperative projects in Malawi have recently closed (one by WeEffect and GIZ is decreasing activities), which has decreased the extent of NGO support to cooperatives in Malawi.

This section addresses Research Question 4: How has the COVID-19 pandemic influenced CD4's results and how has CD4 adapted to the COVID-19 pandemic and how can CD4 adapt better to better ensure sustainability of project outcomes?

Impact of COVID-19

COVID-19 has severely negatively impacted business performance of cooperatives and unions (especially in the dairy sector) and has hindered support that should be provided to members. COVID-19 impacted market stability and reduced access to markets for cooperative members and unions. Cooperative leaders and members report that main challenges to cooperative business performance are COVID-19 related impacts, which include reduced market access, decreased demand for milk, reduced cooperative member income, unstable markets, lack of produce storage facilities, insufficient access to finance, not enough trainings, and an absence or lack of reliable electricity. For dairy cooperatives and milk bulking groups that received loans from the dairy union, qualitative data indicates that these groups are facing difficulties paying back loans and are defaulting because of COVID-19 market shocks.

⁴⁵ The range of scores for this element are as follows: 2 stakeholders voted for a score of 2, three other stakeholders voted for a score of 2.5, and one stakeholder was indifferent and refused to provide a score.

Income loss from COVID-19 impacts has been reported as well, which has made some members unable to pay cooperative fees and to search for other income-generating activities. Cooperative coaches report that the overall prices of goods and services have increased for all individuals. At the cooperative level, the price of fertilizer and other farm inputs have increased, resulting in production limitations that have decreased overall cooperative output. COVID-19 lockdown restrictions have delayed and limited trainings, meetings, and organizational processes. Qualitative data shows that some unions could not hold leadership elections or pass policies because national gathering restrictions prohibited the number of individuals required to achieve decision-making quorums. Field interviews found that COVID precautions lessened the frequency of meetings between government extension workers and cooperative members. This is in alignment with the results of the COVID-19 Impact Study, conducted over four survey rounds from May 2020 through February 2021, which found that the primary impacts of COVID-19 on cooperative members in Malawi is a decrease in income, and the primary impacts on cooperative operations is a slowdown in operations due to mobility/social distancing restrictions and reduced revenue.⁴⁶

The COVID-19 pandemic disrupted CD4 programming and caused extensive delay to project implementation. KIIs with CD4 staff found that Malawi field programming shutdown in March 2020. This was not due to national government restriction, which was the case (and is ongoing in Rwanda) but was a Venture37 and CD4 policy to ensure the safety of staff and participants. March 2020 through September 2020 was a period of adjustment in which CD4 staff focused on how to continue program activities safely and effectively. During this time CD4 staff report providing the supported cooperatives with personal protective equipment (PPE). Qualitative data indicates that CD4 tried to adapt training activities by providing cooperatives with remote coaching via recorded video but faced various challenges. This was implemented via a pilot program in which CD4 provided laptop computers and battery-powered video projectors to three of the CD4-supported cooperatives. Battery powered options were necessary because most project locations reportedly lack electricity. CD4 staff indicate that in-person training on the use of this technology was conducted by CD4 coaches in September/November 2020. However, adoption of this new technology was poor, as most cooperative members were unfamiliar with operating a projector and required additional support from a community teacher or government extension officer beyond the provided in-person CD4 technology trainings. This resulted in regular dead batteries because participants did not turn the projector's power off. Even with functioning technology, CD4 staff report that training cooperative members via video lacked high engagement and interest of participants. Interviews with CD4 staff indicate that in-person visits with cooperatives resumed in November and December 2020, and in-person coaching resumed in January 2021 and was able to continue throughout 2021. The pilot test of remote coaching was not continued, because in-person visits were again possible and preferred by cooperatives, as well as CD4 staff and coaches.

Even after in-person trainings resumed, the Malawi national government COVID-19-related safety precautions continued to limit CD4 training delivery. Guidelines allow fewer participants for in-person activities and prescribe that trainings must be conducted in spaces that allow for air flow and proper physical distancing. The CD4 team has also had to adjust the timeline of activity implementation to avoid holding trainings in areas where an active COVID case has been reported. KIIs conducted with program stakeholders show that program staff perceive current trainings as less efficient because of necessitated reductions in the number of people within a training space. Overall, the extent to which CD4 had to adjust its workplans and implementation methodologies was much more limited in Malawi compared to Rwanda in response to COVID-19.

⁴⁶ COVID-19: Impact on Agricultural Cooperatives. Reports from all four rounds of data collection as well as final reports can be found online: <https://www.landolakesventure37.org/insights-hub/covid-19-impact-on-agricultural-cooperatives>

Conclusions

The conclusions for this midterm evaluation are organized around the four evaluation questions and present aggregated results from both Rwanda and Malawi to highlight programmatic level results.

EQ1: To what extent are project-supported apex bodies better able to meet the evolving needs of their members?

Apex bodies in both Malawi and Rwanda indicate that they have improved their internal operations because of CD4 governance and financial management trainings. However, these bodies still have limited capacity to adequately support their members as revenue generation is a challenge for apex bodies.

Monitoring data show that less of half of cooperative members in Rwanda report awareness of their union in 2021 (41.8%), though this has increased since 2019 (33.1%). Awareness of the union is higher for CD4-supported cooperatives compared to comparison cooperatives in 2021. Interviews with cooperative members in Rwanda show that cooperative members are unable to describe the role of the union, or what kinds of support the union should be providing.

Union staff in both Rwanda and Malawi continue to face problems over access to resources, and they are unable to provide sufficient support to all their member cooperatives as a result. The extent of union support provided to cooperative members differs by value chain in Malawi and Rwanda. The value of services that apex bodies provide to their members is measured via the number of services provided and the rated quality of those services provided, which combines into a perceived value score.

Table 49: Perceived value of services provided by Apex bodies to members

Perceived Value Scores		2019	2020	2021	
		Program	Program	Program	Comparison
Malawi	Essential Services	0.13	N.A.	0.22	0.18
	Non-Essential Services	0.03	N.A.	0.08	0.05
Rwanda	Essential Services	0.17	0.24	0.25	0.20
	Non-Essential Services	0.10	0.13	0.13	0.08

Overall, the perceived value of both essential and non-essential services increased for both countries, and CD4 supported cooperatives in both Rwanda and Malawi report a higher perceived value of services provided by the apex bodies compared to comparison cooperatives. Although this is a positive direction of change, the perceived value of services scores are much lower for apex bodies compared to primary cooperatives, indicating that the overall perceived value of apex services is lower than the perceived value of services provided by primary cooperatives.

The relationships between the federations and their member unions across project-supported value chains in both countries, with the exception of dairy in Malawi, remains weak at midterm. In both Rwanda and Malawi federation leaders indicate that their primary role is to advocate at the national level for cooperative sector needs and priorities (including pricing negotiations), however there is a lack of direct linkages between federations and their member unions.

EQ2: To what extent has the business performance of project-supported apex bodies and primary cooperatives improved?

Interviews with cooperative members and leaders indicate that internal cooperative operations, management, governance, and financial recordkeeping practices have improved since baseline. This improvement is largely credited to trainings on governance, financial management and recordkeeping provided by CD4.

The extent to which cooperative business performance has improved in Malawi is difficult to quantify due to a lack of data collected in 2019 and/or 2020 for multiple indicators. However, interviews with Malawi cooperative leaders, CD4 field agents and staff indicate that cooperative business performance has significantly improved since baseline. Cooperative revenues in Rwanda did indeed increase since baseline for maize and horticulture cooperatives but decreased for dairy cooperatives. In Rwanda, the estimated dollar value of services provided by cooperatives increased for 9 out of 12 CD4-supported cooperatives. In Malawi, data on the value of services provided by the cooperative to members was not collected prior to 2021, so no comparison can be made. But at midterm the value of services provided by cooperatives in Malawi is significantly lower compared to those in Rwanda. The overall Perceived Value Score for all Rwandan and Malawian cooperatives increased overall from 2019 to 2021 for both essential and non-essential services. CD4 supported cooperatives also report higher perceived value of services provided by their cooperative than the comparison. CD4-supported cooperatives are providing a higher number of higher quality services to their members compared to comparison cooperatives.

Table 50: Perceived value of services provided by all cooperatives to members

		2019	2020	2021	
		Program	Program	Program	Comparison
Malawi	Essential Services	0.26	N/A	0.31	0.22
	Non-Essential Services	0.17	N/A	0.19	0.15
Rwanda	Essential Services	0.42	0.49	0.52	0.44
	Non-Essential Services	0.30	0.40	0.40	0.35

The internal operations, governance practices and financial management/recordkeeping of project supported cooperatives and unions have improved since baseline. However, the extent to which cooperatives and unions have been able to increase revenues and provide services to members has been limited in the context of the ongoing COVID-19 pandemic and related market disruptions.

All CD4-supported unions improved their internal business operations. In both Rwanda and Malawi, all CD4-supported cooperatives quantifiably reported improvements in their overall performance in PM2 data. Union leaders in both countries report that CD4 has provided direct support to the union via governance and financial management trainings. These trainings have reportedly been instrumental in improving formalization of union operations, recordkeeping, and financial management.

EQ3: To what extent has project-supported learning and dissemination impacted cooperatives and the cooperative development community's support of cooperatives?

The extent to which learning, and dissemination activities and release of publications has taken place has increased over time. Outcome monitoring data shows the number of publications and learning events held has increased from 10 in 2019 to 32 in 2021, which exceeds the year three target of 30 total in 2021. 15 publications and learning events took place in Rwanda, 5 in Malawi, and 12 through the US Headquarters. Over the life of the project so far, 53 total publications and learning events have taken place, already exceeding the life of project target of 50. This indicates that CD4 is exceeding life of project targets for the number of learning events and publications disseminated by midterm. Interviews with CD4 staff indicate that several events in the last year were conducted remotely to accommodate COVID-19 related travel and gathering restrictions.

Scorecards workshops in Rwanda and Malawi show limited progress in improving the cooperative enabling environment via access to information and knowledge sharing, cooperative policy and law development, and governance and cooperative operation improvements. Cooperative sector stakeholders in Malawi report that political will and leadership to promote cooperative development nationally has improved in principle, but concrete improvements have not yet materialized. In Rwanda, stakeholders report that although there are enabling cooperative laws and policies, these are not consistently communicated to cooperatives and thus are not effectively impacting

cooperative operations. Workshops in both countries found that the level of support provided to cooperative development by the national and international development community--measured through the availability of government financial support, market linkages/private sector support, trainings, donations, and grants--has also remained stagnant since baseline. However, changes to the larger enabling environment take time, and large changes in a three-year period were not expected, particularly in the current context of the ongoing COVID-19 pandemic which has significant and continued effects on the cooperative sectors in both countries.

EQ4: How has the COVID-19 pandemic influenced CD4's results and how has CD4 adapted to the COVID-19 pandemic and how can CD4 adapt better to better ensure sustainability of project outcomes?

COVID-19 has severely negatively impacted business performance of cooperatives and unions and has limited the extent to which support and services have been provided to members. COVID-19 impacted market stability and reduced access to markets for cooperative members and unions. Price volatility and decreased selling prices for cooperative products have occurred because of COVID. Movement and/or meeting restrictions enacted in response to COVID-19, although much more severe in Rwanda than in Malawi, have delayed/limited trainings, meetings, and organizational processes in both countries.

CD4 activities have focused on strengthening of internal operations of cooperatives and unions, which has resulted in improved governance and financial management overall. The strengthened internal operations have allowed CD4-supported cooperatives to adapt relatively better compared to comparison/non-CD4-supported cooperatives. This indicates that CD4 activities have improved supported cooperatives' and unions' ability to adapt to a significant shock, such as COVID-19. Positive results are observed for year one to two of implementation, before the onset of COVID-19. Even with the ongoing severe impacts of COVID-19, the direction of change overall as a result of CD4 activities is positive.

The COVID-19 pandemic disrupted CD4 programming and caused delays to project implementation. In immediate response to COVID-19 CD4 ceased in-person activities and support from March to September 2020 in both Malawi and Rwanda. CD4 staff adapted training activities to be continued via remote coaching, and increased the number of cooperative coaches available to provide direct support to cooperatives since baseline. These coaches have resumed in-person activities as much as possible within ongoing COVID-related restrictions.

Recommendations

Recommendations are provided at the programmatic level and apply to operations in both Malawi and Rwanda.

1. Increase functional relationships between cooperative leaders, cooperative members, and union leaders for learning and collaborative planning.

CD4 has an opportunity to facilitate direct linkages between cooperatives and unions to strengthen these relationships. At midterm, cooperative leaders are aware of their unions but are unsure of who specifically to contact or how to get in contact with their union. Union leaders also indicate they do not always know who specifically to contact for each of their member cooperatives. This indicates a lack of crucial direct linkages between the cooperatives and unions.

It is recommended that CD4 works to facilitate direct linkages between unions and their member cooperatives via:

- Providing opportunities for both cooperative and union leaders to participate jointly in the same trainings so that they can participate in joint learning. This should also include explicit time for cooperative and union leaders to discuss the types of support needed and pathways for sustainable collaboration. Joint participation in training events provides opportunities for cooperatives and unions to learn together and interact on a personal level, and to develop their social capital and strengthen direct linkages.
- Development of a union-level platform that includes both cooperative and union leaders, in which they can directly share experiences and challenges.

- a. Organize specific linkage meetings that focus squarely on relationship building. These should facilitate a joint experience that is not necessarily grounded in project activities or results. Such meetings will still be relevant to agriculture and cooperative development but provide a more open space for discussing risks and opportunities in collaborative initiatives. Linkage meetings specifically focus on strengthening trust between stakeholders through reciprocal information exchange, which can be achieved through presentations on common areas of interest (i.e., government policy developments, market trends etc.) and/or site visits to view demonstration activities – all tied together by facilitated discussion that emphasizes social capital as a key driver for success and key factor in building trust. This could potentially be achieved via CD4 providing a stipend for union leaders to facilitate a meeting once quarterly, that includes representatives from all the union member cooperatives.
- b. Developing a register of cooperative and union leader names and contact information that is shared with all union and cooperative leaders. Ideally this will also include a discussion and information on who to contact for specific queries/issues/needs. It is recommended that there is an explicit “owner” of this contact registry who is responsible for updating the registry with current cooperative and union leaders and contact information after each cooperative/union election cycle.
- Engage cooperatives in learning about their union’s importance via integrating information about the union and available services the union could provide into the pre-existing CD4 cooperative coaching activities on governance and financial management trainings. This should incorporate an explicit overview of the purpose, scope, function, and services available of the union as well as provide cooperative leaders with union leaders contact information.

2. Apply learnings resulting from CD4 to promote intra- and inter-cooperative learning.

Examples of ways unions and cooperatives have overcome challenges already exist within CD4, and CD4 can facilitate sharing of these good examples with other cooperatives and unions. For example, the union revenue-generating activities observed in Rwanda with [REDACTED] maize union and [REDACTED] horticulture union, which find that these unions sell inputs to their members and/or purchase member products and resell them at higher prices to generate union revenue. As union revenue generation is an ongoing challenge, these solutions could possibly be applied to other CD4-supported unions. It is recommended that CD4 facilitate intra-cooperative learning by sharing information on innovative solutions CD4 supported unions and cooperatives have found to overcome challenges.

It is recommended that CD4 facilitate intra- and inter-cooperative learning by:

- Sharing information on innovative solutions some of the CD4 supported unions and cooperatives have found to generate revenue. For example, the project could share the experiences (and challenges) of the Rwanda horticulture union’s direct engagement in marketing products of its member unions as strategy to generate income for the union. Learnings based on this, and other examples could be shared with other unions, in both Rwanda and Malawi.
- Development of a union-level platform that includes cooperative and union leaders, in which cooperative and union leaders can directly share experiences and challenges (also referenced under recommendation 1).
- Sharing the results of research conducted on learning agenda topics covering “Which revenue models are cooperative apex organizations using to offer value to their members?” with cooperative and union leaders to provide research-backed ideas for revenue-generation strategies.
- Developing typologies for effective sharing and learning, CD4 should draw on leading practices such as exchange visits, integration of key messages into existing fora and platforms, use of audiovisual approaches, i.e., video interviews. Where possible, CD4 should consider opportunities to go beyond traditional ‘training’ approaches currently applied in project activities; instead focusing on differentiated knowledge and learning activities that are complementary to those trainings to provide a well-rounded and captivating learning experience.
- Incorporating a peer-to-peer sharing session at the cooperative level at the end of each month. Currently, CD4 training includes a specific group of cooperative members in the direct-coaching activities. CD4 can strengthen the positive results observed at midterm by encouraging further dissemination of the information throughout the cooperative. This could consist of the CD4 coaches working with the cooperative leaders to utilize time during a cooperative meeting (or encourage cooperatives to begin meeting), in which all cooperative members

are invited. The cooperative members who directly participated in CD4 training would then present an overview of what was learned in the previous four weeks (currently CD4 training takes place 1x per week per cooperative, so this would cover four coaching sessions of content). The CD4 coach would be present, to ensure any questions or clarifications could be made in real-time.

3. Facilitate development of long-term strategic vision plans for unions and federation bodies.

CD4 is already providing direct support to apex bodies and some national stakeholders, it is recommended that this is continued so that these bodies in turn have better capacity to directly (a) continue support to primary cooperatives and (b) continue facilitation of CLP learning events after CD4 programming ends. Although there is some evidence that CD4 has worked with some apex bodies on strategic planning, it is recommended that CD4 work with all supported apex organizations to help them devise clear line of sight/ strategic vision in the last year of program implementation. These strategic visions should clearly set out objectives, milestones, assumptions and underlying conditions that must be met for progress for unions and federations. The strategic vision plans should include their vision for what they want to see and be 5, 10, 15 years from now.

Specific recommendations include:

- Identify risks and opportunities associated with the operating models for program cooperatives. This means understating the extent to which formal and informal governance structures, working and interpersonal culture, staffing and technology need to be adapted to enable continuous progress, even without CD4 support. If this is determined to be a focus, then the operating model strengthening (to enable sustainable and resilient results) may inform a next phase of CD4.
- Development of strategic plans for apex bodies that prioritize long-term benefits to their members.
 - Developing plans for apex bodies to become independently financially viable/sufficient.
 - Identification of additional services that can be provided and or strategies to strengthen existing services.
 - Identification of new market opportunities for cooperative members, such as export market opportunities, value-added products (e.g. processed dairy products, packaging of produce), regional and international market opportunities.
- Utilization of the results of research conducted on learning agenda topics, covering “Which revenue models are cooperative apex organizations using to offer value to their members?” and “Which revenue models generate enough revenue to sustainably support the existence of the apex organization?” to guide development of long-term strategic revenue-generation strategies.

4. Internally assess the purpose, role, primary audience, and functionality of the CLP and learning and dissemination activities.

At midterm the extent to which learning and dissemination activities are taking place has increased, and both Malawi and Rwanda have CLPs supported by existing national bodies. Currently, learning and dissemination is taking place primarily at international/national levels. There is no evidence at midterm that these are directly reaching cooperative members or leaders to impact operations. This is still in alignment with USAID CDP objectives, however, at midterm there is an internal belief/expectation that these learning events should also be directly impacting cooperatives. It is recommended that CD4 internally evaluate the desired impact of the CLP and other event modalities and consolidate planned activities in the last years of implementation accordingly.

Specific recommendations include:

- At the CD4 programmatic level, review learning and dissemination activity workplans and identify the intended audience(s) for each activity.
- Conduct country level internal assessment meetings of the functionality of the CLP, based on current performance and strength of current partnerships for facilitation of the CLP. These country level assessments should include a determination of likelihood that the current CLP structure will sustain past program closure, and what feasible opportunities exist to strengthen this likelihood.
- After country level assessments are complete, conduct a CD4 programmatic review to determine areas for alignment at the CD4 programmatic level.

- Strengthen internal data entry practices to ensure information on the content of CLP and learning dissemination events, conferences, and publications is collected systematically. This will ensure that accurate tracking and evaluation of these activities is possible in the last year of implementation. This information can be used to inform which topics have not yet been covered but should take priority in the last year of implementation, and/or provide a roadmap for the next CDP design.

Recommendations for CD4 Adaptation and Response to COVID-19

1. Recover and increase market access.

In response to COVID-19, it is recommended that CD4 focus on developing strategies with supported cooperatives and unions to identify shorter-term opportunities for new markets and to recover markets that have been lost since the onset of COVID-19. Helping the cooperatives develop short term strategies to identify new markets and/or recover markets from COVID-related restrictions should be a priority.

It is recommended that CD4 facilitate increased market access by:

- Focusing on support to dairy cooperatives, as the dairy sector has been most severely impacted by market losses and market disruptions due to COVID-19. Exploration of how dairy cooperatives could diversify their products and/or buyer options is recommended.
- Continuing support for collective marketing with cooperatives, as particularly for maize and horticulture cooperatives in Rwanda, the introduction of collective marketing was done by CD4 recently. Market disruptions due to COVID-19 could dampen enthusiasm and buy in of cooperative members, since this is a newly introduced concept. Ensuring cooperative members see clear success resulting from collective marketing should be prioritized.
- In the longer-term, creating a series of meetings with federation and union leaders to discuss viable, sustainable, and strategic markets that should be pursued for the CD4-supported value chains. These meetings should be specific to one value chain at a time. The goal of these meetings will be to determine and identify longer-term and strategic market plans, as well as generate a roadmap for what steps need to be taken in order for apex bodies to successfully link their members to these markets.

2. Increase access to finance for unions and cooperatives.

Access to finance is needed for unions and cooperatives to fully recover operations that have been disrupted by the restrictions on markets and business activities. It is recommended that CD4 help cooperatives to seek and develop new financing options to link to cooperatives and unions. Ideally, this will be done in collaboration with federations and unions, to ensure these linkages continue after program closure.

It is recommended that CD4 facilitate increased access to finance by:

- Working with apex bodies to develop access to finance for their union and cooperative members. The apex organization are able to take advantage of economies of scale from pooling the demands of their members. This should include consideration of both commercially available products and financing opportunities from government and donor organizations.
- Helping cooperatives to establish a credit-disbursement system. CD4 staff report that examples of this already exist within CD4-supported bodies.

3. Increase cooperative resilience to future shocks via establishment of cooperative savings funds and insurance options.

In longer term, it is recommended that CD4 consider how similar large scale covariate shocks will affect the cooperative sector in the future and develop activities to support cooperatives and unions in exploring insurance options, building savings or a “rainy day” fund in order for cooperatives to adapt to similar disruptions in the future.

It is recommended CD4 work with cooperatives to anticipate future shocks by:

- Providing cooperatives with information about different insurance options, and identify the possible benefits and challenges of different options. Practically this would be achieved through a scoping exercise conducted by CD4, ideally in partnership with apex bodies and sector stakeholders, to assess the range of insurance options currently available and appropriate for cooperatives, including commercial insurance options.
- Through the CD4 coaching activities on financial management, developing savings strategies for each cooperative specifically allocated for an emergency fund. The purpose of this fund should be discussed and made clear to all financial managers as well as cooperative members. CD4 can incorporate training components on the importance, development and utilization of these rainy-day funds to existing financial management coaching work plans.

Appendix

Appendix 1: Organization Reference Table

The following table was created by V37 staff to list all cooperatives which participated in midterm data collection, which is presented in this report. This table shows which unions are connected to specific union and federation bodies.

Table 51: Reference of Primary Cooperatives where data was collected for this midterm, and relevant union/apex body

Primary Cooperative	Country	Value Chain	Program or Comparison	Union	Federation	District
	Rwanda	Dairy	Program		NDDFR	
	Rwanda	Dairy	Program		NDDFR	
	Rwanda	Dairy	Program		NDDFR	
	Rwanda	Dairy	Program		NDDFR	
	Rwanda	Dairy	Program		NDDFR	
	Rwanda	Dairy	Program		NDDFR	
	Rwanda	Horticulture	Program		RFHC	
	Rwanda	Horticulture	Program (starting Y2)		RFHC	
	Rwanda	Horticulture	Program (Y1 only)		RFHC	
	Rwanda	Maize	Program		FCMR	
	Rwanda	Maize	Program		FCMR	
	Rwanda	Maize	Program		FCMR	
	Rwanda	Maize	Program		FCMR	
	Rwanda	Dairy	Comparison		NDDFR	
	Rwanda	Dairy	Comparison		NDDFR	
	Rwanda	Dairy	Comparison		NDDFR	
	Rwanda	Maize	Comparison		FCMR	
	Rwanda	Maize	Comparison		FCMR	
	Rwanda	Horticulture	Comparison		RFHC	
	Malawi	Dairy	Program		Malawi Milk Producers Association	
	Malawi	Dairy	Program		Malawi Milk Producers Association	
	Malawi	Horticulture	Program		None	
	Malawi	Horticulture	Program		None	
	Malawi	Horticulture	Program		None	
	Malawi	Horticulture	Program		None	
	Malawi	Horticulture	Comparison		None	

	Malawi	Dairy	Comparison		Malawi Milk Producers Association	
	Malawi	Dairy	Comparison		Malawi Milk Producers Association	

Appendix 2: Additional Tables, Services Provided to Members

Rwanda Cooperative Services Provided to Members

Table 52: Percent of cooperative members reporting Rwanda Cooperative Services Provided to Members, by value chain

Service Provided by the Cooperative to its members	Value Chain	Year 1 2019	Year 2 2020	Year 3 2021	
				Comparison	Program
Quality Verification	Rwanda	50.0	60.2	60.4	66.4
	Dairy	79.4	73.4	77.1	78.8
	Horticulture	0.0	2.2	50.0	3.1
	Maize	22.4	55.9	47.2	59.1
Identify buyers and negotiates prices	Rwanda	82.9	85.8	79.3	91.5
	Dairy	91.6	90.6	91.7	94.0
	Horticulture	13.3	50.0	50.0	53.1
	Maize	94.1	91.4	73.6	98.9
Provide storage facilities	Rwanda	24.4	33.1	33.3	46.2
	Dairy	36.6	41.6	50.0	55.8
	Horticulture	0.0	2.2	0.0	3.1
	Maize	14.1	26.9	24.5	38.7
Provide Inputs	Rwanda	53.7	52.2	56.8	49.7
	Dairy	53.4	46.8	43.8	45.6
	Horticulture	50.0	71.7	90.0	71.9
	Maize	55.3	55.9	62.3	51.6
Provide Training	Rwanda	70.7	83.1	81.1	68.1
	Dairy	71.8	81.1	79.2	62.7
	Horticulture	53.3	89.1	80.0	62.5
	Maize	75.3	84.9	83.0	82.8
Links to Financial Services	Rwanda	42.7	51.3	34.2	56.1
	Dairy	38.2	45.9	22.9	50.7
	Horticulture	3.3	30.4	80.0	28.1
	Maize	63.5	75.3	35.8	78.5
Loans for Inputs	Rwanda	42.3	64.0	56.8	70.5
	Dairy	51.1	60.1	31.3	71.0
	Horticulture	16.7	71.7	50.0	90.6

	Maize	37.6	69.9	81.1	62.4
Conflict Resolution Among Members	Rwanda	47.6	48.9	31.5	46.2
	Dairy	45.0	44.2	27.1	41.5
	Horticulture	16.7	52.2	30.0	59.4
	Maize	62.4	59.1	35.8	52.7

Table 53: Percent of cooperative members reporting Malawi cooperative services provided to members, by value chain

Service Provided by the Cooperative to its members, MALAWI	Value Chain	Year 1 2019	Year 2 2020	Year 3 2021	
				Comparison	Program
Quality Verification	Malawi	12.3	<i>n/a</i>	3.9	14.7
	Dairy	14.0	<i>n/a</i>	6.0	24.4
	Horticulture	11.4	<i>n/a</i>	0.0	9.5
Identify buyers and negotiates prices	Malawi	57.2	<i>n/a</i>	50.0	65.1
	Dairy	86.0	<i>n/a</i>	60.0	71.1
	Horticulture	40.9	<i>n/a</i>	30.8	61.9
Provide storage facilities	Malawi	26.8	<i>n/a</i>	15.8	27.1
	Dairy	60.0	<i>n/a</i>	24.0	48.9
	Horticulture	8.0	<i>n/a</i>	0.0	15.5
Provide Inputs	Malawi	25.4	<i>n/a</i>	71.1	50.4
	Dairy	42.0	<i>n/a</i>	70.0	77.8
	Horticulture	15.9	<i>n/a</i>	73.1	35.7
Provide Training	Malawi	75.4	<i>n/a</i>	60.5	75.2
	Dairy	66.0	<i>n/a</i>	62.0	66.7
	Horticulture	80.7	<i>n/a</i>	57.7	79.8
Links to Financial Services	Malawi	15.2	<i>n/a</i>	6.6	15.5
	Dairy	12.0	<i>n/a</i>	10.0	8.9
	Horticulture	17.0	<i>n/a</i>	0.0	19.0
Loans for Inputs	Malawi	23.2	<i>n/a</i>	21.1	26.4
	Dairy	24.0	<i>n/a</i>	30.0	26.7
	Horticulture	22.7	<i>n/a</i>	3.8	26.2
Conflict Resolution Among Members	Malawi	7.2	<i>n/a</i>	11.8	2.3
	Dairy	12.0	<i>n/a</i>	18.0	2.2
	Horticulture	4.5	<i>n/a</i>	0.0	2.4

Union Services Provided to Members

Table 54: Percent of cooperative members reporting Union identification of buyers & price negotiation in Malawi & Rwanda by value chain from Year 1 to Year 3

Country & value chain	Year 1	Year 2	Year 3	
			Comparison	Program
Malawi	32.4		31.1	37.5
Dairy	32.4		31.1	37.5
Rwanda	32.4	18.3	50.0	36.7
Dairy	35.5	22.0	50.0	43.4
Horticulture	30.0	2.5	100.0	23.5
Maize	28.6	19.5	47.4	35.0

Table 55: Percent of cooperative members reporting union body provision of INPUTS to their members in Malawi and Rwanda by value chain from Year 1 to Year 3

Country & value chain	Year 1	Year 2	Year 3	
			Comparison	Program
Malawi	45.9		62.2	62.5
Dairy	45.9		62.2	62.5
Rwanda	8.3	7.6	17.9	7.3
Dairy	2.6	5.7	0.0	2.4
Horticulture	5.0	5.0	0.0	0.0
Maize	18.4	12.2	26.3	18.3

Table 56: Percent of cooperative members reporting union provision of Advocacy for their members in Malawi and Rwanda by value chain from Year 1 to Year 3

Country & value chain	Year 1	Year 2	Year 3	
			Comparison	Program
Malawi	5.4		0.0	1.8
Dairy	2.7		0.0	1.8
Rwanda	26.9	57.0	57.1	64.4
Dairy	23.7	58.9	62.5	65.1
Horticulture	25.0	60.0	0.0	70.6
Maize	32.7	52.4	57.9	60.0

Table 57: Percent of cooperative members reporting union provision of training to their members in Malawi and Rwanda by value chain from Year 1 to Year 3

Country & value chain	Year 1	Year 2	Year 3	
			Comparison	Program
Malawi	40.5		64.4	60.7
Dairy	32.4		64.4	60.7
Rwanda	33.8	35.0	75.0	65.0
Dairy	32.9	36.2	87.5	71.1
Horticulture	45.0	35.0	100.0	73.5
Maize	30.6	32.9	68.4	51.7

Table 58: Percent of cooperative members reporting union body provision of conflict resolution across cooperatives for their members in Malawi and Rwanda by value chain from Year 1 to Year 3

Country & value chain	Year 1	Year 2	Year 3	
			Comparison	Program
Malawi	2.7		11.1	1.8
Dairy	0.0		11.1	1.8
Rwanda	34.5	23.2	10.7	24.9
Dairy	38.2	28.4	12.5	25.3
Horticulture	10.0	17.5	0.0	23.5
Maize	38.8	17.1	10.5	25.0

Appendix 3: Detailed Perceived Value of Services Tables, by Value Chain

Table 59: Perceived value of essential services from Apex Organizations in Rwanda by value chain from 2019 to 2021

Rwanda scores by value chain	2019	2020	2021	
	Program	Program	Comparison	Program
Dairy				
Normalized number non-essential services	0.21	0.29	0.38	0.37
Average quality score essential services	0.43	0.53	0.32	0.49
Perceived value score essential services	0.16	0.26	0.19	0.25
Horticulture				
Normalized number essential services	0.30	0.34	0.50	0.47
Average quality score essential services	0.21	0.37	0.20	0.46
Perceived value score essential services	0.14	0.20	0.10	0.30
Maize				
Normalized number essential services	0.27	0.28	0.44	0.38
Average quality score essential services	0.41	0.50	0.35	0.47
Perceived value score essential services	0.19	0.24	0.21	0.23
Overall				
Normalized number essential services	0.24	0.29	0.42	0.39
Average quality score essential services	0.40	0.50	0.34	0.47
Perceived value score essential services	0.17	0.24	0.20	0.25

Table 60: Perceived value of non-essential services from Rwandan Apex Organizations by value chain from 2019 to 2021

Rwanda scores by value chain	2019	2020	2021	
	Program	Program	Comparison	Program
Dairy				
Normalized number non-essential services	0.24	0.20	0.18	0.20
Average quality score non-essential services	0.43	0.53	0.32	0.49
Perceived value score non-essential services	0.13	0.15	0.07	0.12
Horticulture				
Normalized number non-essential services	0.26	0.17	0.13	0.27
Average quality score non-essential services	0.21	0.37	0.20	0.46
Perceived value score non-essential services	0.05	0.08	0.03	0.14
Maize				
Normalized number non-essential services	0.20	0.21	0.20	0.23
Average quality score non-essential services	0.41	0.50	0.35	0.47
Perceived value score non-essential services	0.08	0.13	0.09	0.14
Overall				
Normalized number non-essential services	0.23	0.20	0.19	0.23
Average quality score non-essential services	0.40	0.50	0.34	0.47
Perceived value score non-essential services	0.10	0.13	0.08	0.13

Table 61: Rwanda perceived value of essential services from Primary Cooperatives by value chain from 2019 to 2021

Rwanda scores by value chain	2019	2020	2021	
	Program	Program	Comparison	Program
Dairy				
Normalized number non-essential services	0.60	0.58	0.57	0.62
Average quality score essential services	0.75	0.85	0.82	0.83
Perceived value score essential services	0.48	0.54	0.48	0.56
Horticulture				
Normalized number essential services	0.12	0.23	0.25	0.26
Average quality score essential services	0.48	0.79	0.80	0.77
Perceived value score essential services	0.15	0.26	0.40	0.28
Maize				
Normalized number essential services	0.44	0.52	0.46	0.58
Average quality score essential services	0.82	0.84	0.76	0.81
Perceived value score essential services	0.37	0.47	0.40	0.48
Overall				
Normalized number essential services	0.49	0.52	0.49	0.58
Average quality score essential services	0.76	0.84	0.79	0.82
Perceived value score essential services	0.42	0.49	0.44	0.52

Table 62: Rwanda perceived value of non-essential services from Primary Cooperatives by value chain from 2019 to 2021

Rwanda scores by value chain	2019	2020	2021	
	Program	Program	Comparison	Program
Dairy				
Normalized number non-essential services	0.43	0.48	0.37	0.47
Average quality score non-essential services	0.73	0.80	0.80	0.79
Perceived value score non-essential services	0.33	0.39	0.30	0.38
Horticulture				
Normalized number non-essential services	0.23	0.57	0.52	0.53
Average quality score non-essential services	0.61	0.81	0.87	0.81
Perceived value score non-essential services	0.15	0.46	0.44	0.43
Maize				
Normalized number non-essential services	0.38	0.48	0.47	0.51
Average quality score non-essential services	0.76	0.81	0.81	0.82
Perceived value score non-essential services	0.30	0.39	0.38	0.43
Overall				
Normalized number non-essential services	0.39	0.49	0.43	0.49
Average quality score non-essential services	0.73	0.80	0.81	0.80
Perceived value score non-essential services	0.30	0.40	0.35	0.40

Table 63: Malawi perceived value of essential services from Apex Organizations from 2019 to 2021

Malawi scores for dairy value chain	2019	2020	2021	
	Program	Program	Comparison	Program
Dairy				
Normalized number essential services	0.27	N.A.	0.31	0.34
Average quality score essential services	0.28	N.A.	0.47	0.55
Perceived value score essential services	0.13	N.A.	0.18	0.22

Table 64: Malawi perceived value of non-essential services from Apex Organizations from 2019 to 2021

Malawi scores for dairy value chain	2019	2020	2021	
	Program	Program	Comparison	Program
Dairy				
Normalized number non-essential services	0.11	N.A.	0.14	0.16
Average quality score non-essential services	0.28	N.A.	0.47	0.55
Perceived value score non-essential services	0.03	N.A.	0.05	0.08

Table 65: Malawi perceived value of essential services from Primary Cooperatives from 2019 to 2021

Malawi scores by value chain	2019	2020	2021	
	Program	Program	Comparison	Program
Dairy				
Normalized essential services number	0.41		0.23	0.36
Average quality score essential services	0.61		0.67	0.77
Perceived value score essential services	0.30		0.25	0.36
Horticulture				
Normalized essential services number	0.15		0.08	0.22
Average quality score essential services	0.73		0.43	0.77
Perceived value score essential services	0.22		0.11	0.27
Overall				
Normalized essential services number	0.24		0.17	0.27
Average quality score essential services	0.67		0.62	0.77
Perceived value score essential services	0.26		0.22	0.31

Table 66: Training in Malawi and Rwanda by value chain from Year 1 to Year 3

Country & value chain	Year 1	Year 2	Year 3	
			Comparison	Program
Malawi	40.5		64.4	60.7
Dairy	32.4		64.4	60.7
Rwanda	33.8	35.0	75.0	65.0
Dairy	32.9	36.2	87.5	71.1
Horticulture	45.0	35.0	100.0	73.5
Maize	30.6	32.9	68.4	51.7

Table 67: Conflict resolution across cooperatives in Malawi and Rwanda by value chain from Year 1 to Year 3

Country & value chain	Year 1	Year 2	Year 3	
			Comparison	Program
Malawi	2.7		11.1	1.8
Dairy	0.0		11.1	1.8
Rwanda	34.5	23.2	10.7	24.9
Dairy	38.2	28.4	12.5	25.3
Horticulture	10.0	17.5	0.0	23.5
Maize	38.8	17.1	10.5	25.0

Table 68: Malawi perceived value of non-essential services from Primary Cooperatives from 2019 to 2021

Malawi scores by value chain	2019	2020	2021	
	Program	Program	Comparison	Program
Dairy				
Normalized non-essential services number	0.16		0.18	0.19
Average quality score non-essential services	0.79		0.85	0.87
Perceived value score non-essential services	0.14		0.15	0.16
Horticulture				
Normalized non-essential services number	0.21		0.19	0.24
Average quality score non-essential services	0.85		0.82	0.84
Perceived value score non-essential services	0.19		0.16	0.20
Overall				
Normalized non-essential services number	0.20		0.18	0.22
Average quality score non-essential services	0.83		0.84	0.85
Perceived value score non-essential services	0.17		0.15	0.19

Appendix 4: Classification of Essential and Non-Essential Services

Table 69: Essential and non-essential services selections by primary cooperatives and apex organizations

Essential and non-essential services	Primary Cooperatives	Apex Organizations
Identify and negotiate with buyers	Essential	Essential
Training and technical advice	Non-essential	Non-essential
Regular and prompt payments for products sold	Non-essential	Non-essential
Provide inputs	Non-essential	Essential
Loans for any other purpose	Non-essential	Non-essential
Conflict resolution among members	Non-essential	Non-essential
Quality verification of product	Essential	Non-essential
Links to financial services	Non-essential	Non-essential
Loans for inputs	Non-essential	Non-essential
Vet/Agro services	Non-essential	Non-essential
Member interests represented with government officials	Essential	Non-essential
Transport of product	Non-essential	Non-essential
Provide processing facilities/Farming equipment	Non-essential	Non-essential
Storage facilities for bulking	Essential	Non-essential
Field visits/Cross visits?	Non-essential	Non-essential
Farming activities undertaken directly by cooperative	Non-essential	Non-essential
Shops that provide household goods	Non-essential	Non-essential
Other - Please specify	Non-essential	Non-essential
Conflict resolution across cooperatives	Non-essential	Non-essential
Advocacy	Non-essential	Essential

Table 70: Max value for essential and non-essential services in first three years of programming

Cooperative body	Value chain	Essential	Non-essential
Primary Cooperatives	Maize	3	7
	Dairy	4	14
	Horticulture	4	13
Apex Organizations	Maize	3	7
	Dairy	3	9
	Horticulture	2	8

Appendix 5: Recommendations provided by CD4-supported cooperatives and unions

The following recommendations were found during interviews conducted with CD4-supported cooperatives and unions during midterm fieldwork. The evaluation team feels it is important to document these, as they could be useful framing for CD4 implementors in the following years of the program. Although these recommendations were not generated by the evaluation team directly, they are in alignment with the midterm findings presented in this report.

Rwanda Recommendations

The following recommendations come directly from CD4 supported cooperatives and unions in Rwanda.

General recommendations from cooperatives. Provide refresher trainings and new trainings on computer literacy. Cooperative members want to be included in trainings that cooperative staff and leaders receive. Cooperatives request new market linkages. Cooperative members want CD4 to help the cooperative establish a credit-disbursement system. CD4 was recommended to hire, train, and pay a permanent CD4 staff member at the cooperative level. CD4 should also help cooperatives acquire agricultural land, create storage facilities for maize, and build milk cooling tanks. Cooperatives suggested CD4 supply vet medicine and services to cooperatives.

General recommendations from unions. CD4 should engage cooperatives in learning about their union's importance and support more cooperatives to improve their management capacities. Continued trainings and capacity building initiatives should be expanded upon, as well as help accessing markets and expanding CD4 activities to more non-CD4 supported cooperatives.

Malawi Recommendations

The following recommendations come directly from CD4 supported cooperatives, unions, and federations in Malawi.

General recommendations from cooperatives. CD4 should include cooperative members in trainings that only staff/leaders receive. Cooperative members request help accessing farming tools (sickle, shovel, wheelbarrows, hay cutting machinery), promote awareness campaigns to attract youths to join and incentivize their participation with access to finance. CD4 should continue to work with unions to help them provide this support to their members, as a sustainable strategy, hold more trainings for cooperative leaders, and build capacity of members in business planning and household budgeting. Interviews with cooperative members and leaders show requests for the development of new market linkages, the development of a union-level platform where leaders can share experiences and challenges and facilitate easier access to loans and finance for members.

General recommendations from unions. CD4 should involve unions as key players in CD4 program planning and implementation, assist with financial audits to assess union's financial position, help MBGs register as cooperatives and help [REDACTED] register as a cooperative union, and support unions to develop business plans and proposals to support investments for cooperatives/MBGs, unions and federations when programming the project.

General recommendations from federations. CD4 should engage budget allocation for livestock, increase sectoral processing capacity, and increase campaigns that target youth participation in cooperatives. Federations also recommend that CD4 reach out to more cooperatives including the northern region of Malawi, support MMPA to establish its own milk processing plant owned by farmers at national level, diversify support to include other technical activities, infrastructure and not only governance trainings and change program funding from post activity financing to pre activity financing.

Annexes

Annex 1: Table of Key Activity Indicator Values

Annex 2: Scope of Work for this Evaluation

Annex 3: Inception Report for this Evaluation

Annex 4: Focus Group Discussion Tool

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Annex 10: Detailed PM2 Scores Calculated by CD4

Annex 1: Table of Key Activity Indicator Values

#	Indicator Name (Output or Outcome)	Disaggregation		Baseline	YR 1 (FY2019)		YR2 (FY2020)		YR3 (FY2021)		Life of Project so far (as of Y3)	
				Value	Target	Actual	Target	Actual	Target	Actual	LOP Target	LOP Actual, as of Y3
1	Perceived value score for apex organizations	Average Perceived Value Score		30%	35%	9%	40%	13%	35%	13%	30%	13%
		Rwanda	Essential		40%	17%	45%	25%	40%	25%	35%	25%
			Non-Essential		30%	10%	35%	13%	30%	13%	25%	13%
		Malawi	Essential		40%	13%	45%	No data	40%	22%	35%	22%
			Non-Essential		30%	3%	35%	No data	30%	8%	25%	8%
2	GNDR-2 Percentage of female participants in USG-assisted programs designed to increase access to productive economic resources (assets, credit, income or employment)	Percentage of Total Participants		20%	25%	43%	45%	49%	50%	40%	50%	43%
		Calculation for total	Numerator			125	328	522	382	351	382	759
			Denominator			294	728	1058	764	873	764	1756
		Country	Rwanda			45%	45%	47%	50%	38%	50%	42%
			Malawi			33%	45%	58%	50%	47%	50%	47%
		Age	18-35			55%	45%	63%	50%	58%	50%	61%
			35+			45%	45%	47%	50%	41%	50%	43%
3	CDP-IR#1: % of cooperatives and credit unions with improved governance	Overall % of Organizations		0	0	N/A	42%	44%	36%	35%	72%	35%
		Calculation for total	Numerator (#)	N/A	N/A	N/A	6	7	9	8	26	8
			Denominator (#)	N/A	N/A	N/A	15	16	25	23	36	23
		Rwanda	Primary Coops	N/A	N/A	N/A	No target	5	No target	4	No target	4
			Union	N/A	N/A	N/A	No target	2	No target	1	No target	1
		Malawi	Primary Coops	N/A	N/A	N/A	No target	No data	No target	3	No target	3
			Union	N/A	N/A	N/A	No target	No data	No target	1	No target	1
4	CDP-Purpose#1 Dollar (\$) Value of	Total value (\$)		\$1,905,003	No target	\$1,672,358	\$2,188,355	\$2,002,685	\$2,292,958	\$1,872,416	\$9,489,601	\$5,547,459

	income and /or services delivered to members by cooperatives and credit unions	Type of Org.	Primary Coops		No target	\$1,672,358	No target	\$1,993,825	No target	\$1,763,139	No target	\$5,429,322
			Union		No target	No data	No target	\$8,861	No target	\$109,276	No target	\$118,137
		Malawi	Income	\$136,414	No target	No data	\$143,368	No data	\$150,396	\$161,548	\$173,708	\$161,548
			Service	\$77,800	No target	No data	\$81,690	No data	\$85,774	\$35,852	\$99,063	\$35,852
		Rwanda	Income	\$1,690,789	No target	\$1,672,358	\$1,775,328	\$1,712,226	\$1,859,868	\$1,406,846	\$2,113,477	\$4,791,430
			Service	\$179,018	No target	No data	\$187,969	\$292,466	\$196,920	\$268,170	\$223,782	\$560,636
5	Percent change in Revenue of apex bodies	Overall % increase		-	-	N/A	5%	0%	10%	444%	25%	444%
		Country	Rwanda	-	-	N/A	5%	0%	10%	444%	25%	444%
			Malawi	-	-	N/A	5%	No data	10%	n/a	25%	n/a
6	Number of activity-supported apex bodies that have improved one level on the PM2 tool since baseline	Total # of Apex Bodies		-	-	N/A	1	1	2	5	7	5
		Country	Malawi	-	-	N/A	0	No data	1	2	2	2
			Rwanda	-	-	N/A	1	1	1	3	5	3
7	Number of primary cooperatives and apex bodies that attend a CLP event	Total # of Organizations		0	25	34	90	54	135	114	250	162
		Rwanda	Primary Cooperative	0	20	20	75	24	90	89	No target	109
			Apex Organization	0		6	5	1	20	23	No target	23
		Malawi	Primary Cooperative	0	5	5	6	26	10	1	No target	26
			Apex Organization	0		3	4	3	5	1	No target	4
8	Perceived value score for primary cooperatives	Perceived Value Scores		50%	50%	27%	55%	41%	65%	37%	65%	37%
		Rwanda	Essential		55%	42%	60%	49%	70%	52%	70%	52%
			Non-Essential		45%	30%	50%	40%	60%	40%	60%	40%
		Malawi	Essential		55%	26%	60%	No data	70%	31%	70%	31%

			Non-Essential		45%	17%	50%	No data	60%	19%	60%	19%
9	CDP-Purpose #3 Dollar (\$) Value of member equity in a cooperative or credit union	Overall Total		\$335,629	\$366,240	\$335,629	\$405,143	\$1,039,442	\$1,589,874	\$1,237,924	\$2,452,500	\$1,589,874
		Rwanda	Primary Coop	\$335,629	N/A	\$335,629	N/A	\$1,039,442	N/A	\$912,775	\$2,072,007	\$912,775
			Union	No data until Y3	N/A	No data	N/A	No data	N/A	\$10,444	\$14,969	\$10,444
		Malawi	Primary Coop	No data until Y3	N/A	No data	N/A	No data	N/A	\$166,613	\$172,075	\$166,613
			Union	No data until Y3	N/A	No data	N/A	No data	N/A	\$148,092	\$203,880	\$148,092
10	Number of activity-supported primary cooperatives that have improved one level on the PM2 tool since baseline	Total # of Cooperatives		0	N/A	N/A	8	4	11	10	25	10
		Country	Rwanda	0	N/A	N/A	6	4	8	7	18	7
			Malawi	0	N/A	N/A	2	No data	3	3	7	3
11	Percent Change in Revenue of primary cooperatives	Average for all Cooperatives		0%	0%	N/A	5%	-2%	10%	28%	25%	28%
		Country	Malawi	0%	0%	N/A	5%	No data	10%	no baseline data for comparison	25%	no data yet
			Rwanda	0%	0%	N/A	5%	-2%	10%	28%	25%	28%
12	CDP- IR#2 Number of cooperative members benefiting from services and resources delivered through cooperatives and credit unions	Total # Cooperative Members		6,540	6540	6,444	6,867	6,229	7,194	6,344	8,175	7074
		Country	Rwanda	5,539	5,539	5,435	5,816	5,099	6,092	5,481	6,924	5935
			Malawi	1,001	1,001	1,009	1,051	1,130	1,102	863	1,251	1139
		Sex	Male		no target	4,235	no target	4,031	no target	4,210	5313	4621
			Female		no target	2,209	no target	2,198	no target	2,134	2862	2453
		Age	18-35		no target	979	no target	958	no target	963	no target	1009
			35+		no target	4,906	no target	4,829	no target	4,927	no target	5335
		New vs. Continuing	New		no target	6,444	no target	464	no target	166	no target	7074
			Continuing		no target	N/A	no target	5,765	no target	6178	no target	n/a

13	GNDR-8: Number of persons trained with USG assistance to advance outcomes consistent with gender equality or female empowerment through their roles in public or private sector institutions or organizations	Total # of Persons		0	40	112	140	648	485	106	769	729
		Country	Rwanda		40	112	140	648	485	106	769	729
			Malawi		0	0	0	0	0	0	0	0
		Sex	Female			65	75	348	235	70	430	390
			Male			47	65	300	250	36	339	339
		Age	18-35			12		130	no target	9	no target	414
			35+			97		486	no target	96	no target	556
		New vs. Continuing	New			112		608	no target	9	no target	729
			Continuing			N/A		40	no target	97	no target	N/A
14	CDP-IR #3 Number of organizations using CDP-developed tools and resources to benefit cooperatives and cooperative systems	Total # of Organizations		0	15	23	21	23	36	40	43	40
		Rwanda	Primary Cooperative		12	12	12	12	27	27	25	27
			Apex Organization		3	3	3	3	9	3	7	4
		Malawi	Primary Cooperative		6	6	6	6	31	6	7	6
			Apex Organization		2	2	2	2	5	3	4	3
15	Number of learning agenda questions pursued	Number of Questions		0	1	1	2	1	2	2	6	4
16	EG. 5.2-2: Number of private sector firms that have improved management practices or technologies as a result of USG assistance	Total # of Firms		N/A	N/A	N/A	8	11	14	20	30	20
		Rwanda	Primary Cooperative	N/A	N/A	N/A	5	9	8	9	18	9
			Apex Organization	N/A	N/A	N/A	1	2	2	3	4	3
		Malawi	Primary Cooperative	N/A	N/A	N/A	2	No data	3	6	6	6
			Apex Organization	N/A	N/A	N/A	0	No data	1	2	2	2
17	Number of learning or dissemination events held and/or publications released	Total # of Events & Publications		N/A	10	10	20	10	30	32	135	52
		Country	Rwanda	N/A	10	7	12	6	24	15	82	28
			Malawi	N/A	0	1	4	1	6	5	25	7
			Head Quarter	N/A	no target	2	4	3	no target	12	28	17

18	Dollar (\$) value of non-donor resources mobilized for locally led development priorities	Total for the project		N/A	\$296,000	\$11,714	\$296,000	\$461,688	\$296,000	\$1,091,052	\$1,480,000	\$1,564,454
		Country	Rwanda	N/A	no target	disagg not done	no target	\$0	no target	\$980,144	no target	\$980,144
			Malawi		no target	disagg not done		\$0	no target	\$48,700	no target	\$48,700
			Head Quarter	N/A	no target	disagg not done	no target	\$0	no target	\$62,208	no target	\$62,208
		Resource Type	In-Kind	N/A	no target	disagg not done	no target	\$61,869	no target	\$716,070	no target	\$777,939
			Cash		no target	disagg not done	no target	\$399,819	no target	\$50,765	no target	\$450,584
			Debt financing		no target	disagg not done	no target	\$0	no target	\$324,218	no target	\$324,218
			Non-debt financing		no target	disagg not done	no target	\$0	no target	\$0	no target	\$0
		Source type	National government	N/A	no target	disagg not done	no target	\$0	no target	\$181,986	no target	\$181,986
			Sub-national government	N/A	no target	disagg not done	no target	\$0	no target	\$0	no target	\$0
			Local non-profit	N/A	no target	disagg not done	no target	\$0	no target	\$3,760	no target	\$3,760
			Individuals (not reps of an org)	N/A	no target	disagg not done	no target	\$0	no target	\$0	no target	\$0
			Local philanthropic organization	N/A	no target	disagg not done	no target	\$0	no target	\$0	no target	\$0
			International philanthropic organization	N/A	no target	disagg not done	no target	\$64,113	no target	\$119,118	no target	\$183,231
			International private sector firm	N/A	no target	disagg not done	no target	\$0	no target	\$62,208	no target	\$62,208
			Local private sector firm	N/A	no target	disagg not done	no target	\$397,575	no target	\$723,980	no target	\$1,121,555
			Other	N/A	no target	disagg not done	no target	\$0	no target	\$0	no target	\$0