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LIST OF ACRONYMS

ACTN	African Conservation Tillage Network
ADEM	Agência de Desenvolvimento Económico da Província de Manica
ADRA	Adventist Development and Relief Agency
AECF	Africa Enterprise Challenge Fund
AGRA	Alliance for a Green Revolution in Africa
AGMARK	Agricultural Market Development Trust
AMSCA	Agribusiness Management Solution for a Competitive Agriculture
APME2A	Agence pour la Promotion de la Petite et moyenne entreprise. Agriculture et Artisanat
BDS	Business development support
BRICOP	Burkina rice commercialization project
BRITEN	Building Rural Incomes Through Enterprise
CCIA	Co-op Consultancy Insurance Agency
CGA	Cereal Growers Association
COPAZA	Cooperativa de Produtores da Alta Zambézia
CSDI	Center for Sustainable Development Initiative
CLAPHI	Catalyzing scale adoption of cowpea post-harvest innovations for enhanced prosperity and food security in Burkina Faso
DAC	Development Assistance Committee
EABL	East African Breweries Limited
EAC	East African Community
EAGC	East African Grain Council
FBO	Farmer-based organizations
FCI	Farm Concern International
FGD	Focus group discussion
FISFAP	Financial Inclusion for Smallholder Farmers in Africa Project
FO	Farmer organization
FOSCA	Farmer Organization Support Centre in Africa
GAPs	Good agricultural practices
GGC	Ghana Grains Council
GWARP	Ghana Warehouse Receipt Promotion Project
ICT	Information and communication technology
IDRC	International Development Research Centre
IMSF	Integrated management of soil fertility
IPTT	Indicator Performance Tracking Table
KII	Key informant interviews
MAP	Market Access Program

MSME	Micro, Small and Medium Enterprises
M&E	Monitoring and evaluation
NGO	Non-governmental organizations
NPO	Not-for profit organizations
OCA	Organizational capacity assessment
PASS	Program for Africa's Seed Systems
PDI	Program Development and Innovation
PHT	Post-harvest technologies
PHL	Post-harvest loss
PO	Program Officers
RATIN	Regional Agricultural Trade Intelligence Network
RME	Rural micro-enterprises
RPAM	Reduction des pertes post-recolte et d'accès au marché
RUDI	Rural Urban Development Initiatives
SAFOZA	Strengthening Ability of Farmer Organizations in Zambezia Province to Access
SAIOMA	Strengthening Agricultural Input and Output Markets in Africa
SCF	Small commercial farmers
SHF	Smallholder farmer
SHP	Soil Health Program
SME	Small and medium enterprises
TOC	Theory of change
USD	United States Dollar
WFP	World Food Program
WRS	Warehouse receipt system

EXECUTIVE SUMMARY

INTRODUCTION

The Market Access Program (MAP) was a 10-year program, implemented by the Alliance for a Green Revolution in Africa (AGRA) across 14 countries in Africa between 2008 and early 2019, which sought to address the key constraints experienced by smallholder farmers with regards to market access. AGRA issued grants to local partner organizations in the program countries to implement specific interventions that targeted these constraints. MAP's core objectives were to:

1. Reduce transaction costs for smallholder farmers
2. Increase value addition in food usage
3. Increase demand of food staples through alternative usage
4. Promote an enabling environment for local and regional trade of food staples.

Now at the end of the program, Genesis Analytics ("Genesis") was contracted by AGRA to conduct the end of program evaluation of MAP, focusing on five of the program countries, namely Kenya, Tanzania, Ghana, Mozambique and Burkina Faso. The purpose of the evaluation is to formulate a reasoned and independent view of the relevance, efficiency, effectiveness, impact and sustainability of the program in light of its initial goals and targets, and to put forward recommendations that AGRA should consider for future programming to maximize its effectiveness at making markets work for smallholder farmers.

The evaluation was guided by an evaluation framework that was structured according to the OECD Development Assistance Committee (DAC) criteria of relevance, effectiveness, efficiency, impact and sustainability. Data collection methods included a desktop review of all relevant MAP documents and data; 49 key informant interviews (KIIs) with MAP team members, partners and program stakeholders; and 10 focus group discussions (FGDs) with beneficiaries of the program from across the five focus countries. To gain a deeper understanding of the impact of MAP on grantees, beneficiaries and market infrastructure, primary data collection was centered around 15 case studies (three cases per country) of MAP-funded projects that ended from 2016 onwards and demonstrated a diversity of intervention archetypes and grant sizes. Overviews of each case are presented in the Appendix of this report.

KEY FINDINGS

Relevance

MAP's strategy increased in relevance as it evolved. This is apparent in two ways. Firstly, while the strategic focus of MAP was initially on postharvest activities and market linkages, many of the MAP projects included training in good agricultural practices (GAPs), which was relevant given the production challenges facing many of the beneficiaries. Secondly, MAP's strategy evolved to include an increased emphasis on program integration, following changes in AGRA's organizational strategy. This was again relevant as many of the smallholder farmers needed pre-harvest and production assistance in order to improve yields and enable access to markets. However, while business plans were developed at the outset for each country, which informed targeted activities and value chains, these plans were not updated on a continuous basis, which is important to ensure ongoing relevance of interventions

While hypothesis testing studies and country business plans were developed, it appears to be the case that **feasibility assessments were not consistently conducted prior to designing and implementing individual projects**, thereby potentially limiting project relevance to targeted beneficiaries. For example, had

these assessments been completed, it is likely that AGRA and project partners would have realized earlier on that beneficiaries required assistance in improving production.

However, the evaluation team created a model of smallholder farmers' needs to enable them to participate in markets, and found that the **MAP activities, particularly those implemented through AGRA's integrated interventions, were relevant to beneficiary needs** (including those needs that were not explicitly targeted).

There were two key assumptions underlying MAP's theory of change which did not hold, thereby limiting the relevance of specific interventions. Firstly, stimulating demand for alternative uses of food crops was not relevant, as few of the smallholder farmers produced sufficient yields to be competitive in this area. Secondly, while warehouse receipting is very relevant for structure trading, the relevance of the MAP WRS interventions was limited in part due to policy and regulatory environments, as well as constraints faced by smallholder farmers.

While MAP applied relevant selection criteria in identifying partners, the majority of which were NGOs, some stakeholders felt that **more government and private sector partners should have been engaged** as they tend to have a more sustained presence in countries. Recognizing this, AGRA's strategy has adapted over time to engage more with these public and private actors.

The consortium approach was relevant in implementing projects as consortium members could come together to address a wider ambit of needs and constraints. However, partners noted that working as part of a consortium requires considerable time to manage and that further support should be provided to enable partners to more effectively work together.

Efficiency

AGRA's selection of partners for MAP has been efficient given the program strategy as well as changes to AGRA's strategy over the course of the program. Partners were selected either on the basis of a semi-competitive bidding process or through direct solicitation based on previous experiences with AGRA. This approach balanced the need for competition with the need for suitably qualified candidates and the potential for enhanced impact through repeat interactions.

Grant and budget management was conducted efficiently and was adaptive to the needs of the partners when challenges arose.

The partners' engagements and experiences with the MAP team were mixed. Certain partners reported a lack of clarity about who their point person was within the AGRA team and MAP staff turnover meant that there was a lack of continuity when it came to AGRA's input into and knowledge of certain projects, which was disruptive to implementation. Furthermore, communication within the AGRA teams responsible for integrated projects appeared to be somewhat lacking due to the siloed nature of the organization, with partners reporting that they would receive multiple requests for the same project reports from different AGRA staff members. This is because program officers would be drawn from several different programs and would not liaise with each other on a regular basis.

The performance of MAP with respect to monitoring and reporting was mixed. The in-person monitoring support provided by the MAP program officers was found to be sufficient and the training on monitoring and financial reporting was found to be useful. However, the lack of formally tracked monitoring data is concerning and suggests that this function could have been done better by both partners and AGRA alike. Furthermore, the monitoring and evaluation budget component of the grants was insufficient for a number of partners, who reported that they had to subsidize this function from other parts of their businesses.

The three-year project timeframe was too short for partners to effectively and efficiency implement or track progress, and did not allow enough time to get a sense of the early indications of sustained impact.

Effectiveness

The evaluation team faced a number of challenges in quantitatively assessing MAP's achievements against targets due to limitations in the program data provided. Where possible, this was done, however, the evaluation team has provided a predominantly qualitative assessment of factors contributing to, or detracting from, MAP's achievement of objectives.

Many of the factors influencing the achievement of objectives were informed by the reality of the targeted beneficiaries, particularly the fact that many of the smallholder farmers supported through the program were subsistence-based farmers, selling their production only when surplus was available. Limited production inhibited beneficiaries' ability to participate in structured trading systems and limited their competitiveness in selling to industry for alternative uses of food crops. These factors undermined the achievement of objectives in reducing transaction costs and increasing demand for food staples through alternative uses.

Working in consortium was both a success driver and a challenge. Those partners who identified and managed the key factors that drive successful partnerships, working in consortium was beneficial. However, some partners explained that working in consortium affected their implementation timelines and achievement of objectives.

Restrictive timelines also affected the achievement of objectives, as project partners noted insufficient timelines for effectively and sustainably enhancing smallholder farmers' access to markets.

There were a range of external factors that affected the achievement objectives, including: government intervention in agriculture markets which affected the price of food staples; climate shocks which limited smallholder farmers' production; limited access finance which inhibited beneficiaries' access to mechanization and equipment; as well as donor crowding in intervention areas which undermined beneficiaries' willingness to pay for goods and services. While these external factors are beyond the control of AGRA or partners, there is enabling environment work which can be done to mitigate these risks.

The program did not effectively integrate gender considerations into design or implementation. There is limited evidence to indicate that the specific needs of women beneficiaries were properly scoped and accounted for, and few partners were required to report on gender reach targets or gender-disaggregated data. While two partners were promised a gender specialist role for their respective projects, this support did not materialize.

MAP's evolving emphasis on integration during program implementation enhanced the program's effectiveness in reaching objectives. Partners who were implementing integrated projects noted the power of integrated programming in terms of being responsive to beneficiary needs. Increasing integration also supported knowledge sharing within AGRA as program teams became less siloed.

While partners noted varying levels of support from AGRA in terms of capacity building, all partners noted that **the support received was helpful in assisting them to successfully implement their project and navigate grant agreements.**

Impact

MAP is considered to have contributed to impact at the farmer-level, such as improved access to markets through linkages to different types of buyers; increased commitment of farmers to partake in collective marketing through aggregation; access to finance; increased yields and a decrease in post-harvest losses.

MAP activities have also improved the capacity of value chain actors, such as farmer organizations and processors, to work with smallholder farmers.

Through the program's integrated approach, MAP has provided end-to-end solutions that meet the needs of smallholder farmers. As a result, **MAP has contributed to an improvement in self-reported farmer economic welfare**. The increase in income is reported to have resulted in increased ability to pay for fees and emergencies, make incremental housing improvements, and acquire assets.

In all MAP countries, efforts have been made to establish structured trade systems with the aim of addressing the inherent market challenges that smallholder farmers face. However, **the effectiveness and potential impact of this is stunted** by the presence of barriers, such as the lack of a supportive regulatory environment and inconsistency in the quality and quantity of produce aggregated by farmers.

The program is reported to have had a positive impact on women beneficiaries. Women farmers consulted shared that, through MAP-funded interventions, they are now more empowered as project activities have influenced their farming activities and role in the household. This increase in income has contributed to improved financial independence, a reduction in the time spent in the farm and improved the overall household environment. It is important to note, however, that gender mainstreaming was not well implemented across MAP-supported projects and there is a possibility that the gender-specific impact of the project is under- or over-estimated by the qualitative data.

Sustainability

While the design of MAP was relevant as it was holistic and addressed the needs of the farmers (improving productivity, reducing post-harvest losses and increasing access to markets), **the majority of the partners that MAP has largely worked with are NPOs and NGOs, making the sustainability of the MAP-supported projects mixed across the portfolio**. Depending on the effectiveness of the exit strategies implemented, the systems and/or linkages developed during implementation have continued where a partner was able to source additional funding or work with the government.

There is minimal evidence of scalability and sustainability of MAP's not-for-profit partners, as many of the operational costs, that the beneficiaries were reliant on, were covered by MAP's funding. Where MAP implemented projects through for-profit organizations, prospects of becoming commercially sustainable are unclear. This is influenced by the nature of the organizations the partner works with.

At the beneficiary-level, **there is evidence that the impact achieved under MAP will be sustained should beneficiaries maintain what they have been taught under MAP**. However, it is too early to tell the extent to which beneficiaries will maintain these activities in the long-term.

At the policy-level, there is a strong potential role for AGRA to continue playing in developing the ecosystem to promote sustainable market access for smallholder farmers, particularly within the regulatory and policy making space. Structured trading systems in the countries of focus still require support from development actors to enable their development until they can do so organically.

MAP's use of an integrated approach to programming has facilitated the formation of partnerships across the sector to implement end-to-end solutions to address the needs of smallholder farmers and value chain actors.

RECOMMENDATIONS

Genesis is aware that many lessons learned from MAP as well as other AGRA legacy programs have already been used to inform the development of the 2017-2021 AGRA strategy. However, we suggest that AGRA also consider and adopt the following recommendations for future markets work, which were developed based on the findings and analysis of this evaluation:

- **AGRA should continue to emphasize integrated programming, which is a key component of the new AGRA strategy.** Ideally, integration should start at the design stage before the grants are even awarded and AGRA can build on or coordinate with other organizations' interventions they know of that are targeting beneficiaries in the region with similar objectives.
- **Provide additional support to consortia to facilitate cooperation of members and enhance the effectiveness of joint implementation.** Relevant guidance and support that AGRA could provide would include establishing clear roles and accountabilities, training on joint monitoring and reporting, as well as guidance on contingency planning and risk management in the event that one or multiple member(s) of a consortium underperform.
- **Conduct feasibility assessments prior to each project implementation to identify the needs and constraints faced by beneficiaries.** This would help identify those farmers who are in need of pre-harvest and production support to achieve the yields necessary to access markets, tailor support to farmer organizations that is commensurate with their stage of development, and ensure the relevance of specific activities within the prevailing policy and regulatory environments in each country.
- **Increase the length of the grants to five years.** This would allow for partners to plan for and manage climate- and policy-related challenges; give the time to ramp up and effectively establish their teams or sensitize the beneficiaries; and allow time for progress at the outcome and impact level to be effectively monitored and tracked. Extending the length of the grants issued by AGRA would mean that AGRA should also consider negotiating longer umbrella grants (perhaps seven years).
- **Ensure consistent and comprehensive indicator tracking across all interventions for aggregate reporting.** Should AGRA need to report on how multiple interventions contribute to overall programmatic objectives, headline indicators for each intervention need to be aligned and these need to feed into an aggregate database from which AGRA can draw overall conclusions on the indicators in question.
- **Establish country level targets.** While many of the activities and associated indicators are relevant in each country context, the potential scale may differ by the opportunities and constraints in each country. To accurately assess each country's achievement against targets, and compare contribution to the overall results achieved, it is important to include annual and total targets for each country.
- **Be intentional about gender mainstreaming in the design of future programs.** This would include conducting thorough assessments of the current gender dynamics in project locations and including activities in the intervention that both implicitly and explicitly address these issues. Furthermore, there should be indicators assigned to these activities that explicitly track progress against gender-specific targets which partners should be required to report on. AGRA has advised that a gender advisor has been appointed and will be responsible for this going forward under the new strategy.
- **Implementation partner selection should mirror AGRA's market systems ethos.** In the past, most of AGRA's grantees were NGOs that did not have a deliberate exit strategy post AGRA funding. Going forward, AGRA must insist on a clear pathway to sustainability post-AGRA funding as well as evidence of facilitating activities through permanent value chains actors. AGRA has advised that a blended approach is now in place where private sector partners form part of the consortia.
- **Emphasize value unlocked as opposed to numbers of beneficiaries reached.** AGRA must take the lead in convincing donors that within a market systems context, chasing numbers often becomes a tick box exercise, which is divorced from market realities. In this vein, emphasizing value unlocked by AGRA interventions, in addition to numbers, makes more sense as value chains can only accommodate so many smallholders; processors or retailers.

1. INTRODUCTION

The Market Access Program (MAP) was a 10-year program, implemented by the Alliance for a Green Revolution in Africa (AGRA) between 2008 and early 2019, which sought to address the key constraints experienced by smallholder farmers with regards to market access. These include i) a lack of knowledge around best practice post-harvest handling techniques; ii) a lack of up-to-date market information; iii) ineffective systems for sorting, grading, storing, transportation and aggregation of produce; iv) and poor market linkages. The program was implemented in 14 countries¹ across Africa.

Now at the end of the program, Genesis Analytics (“Genesis”) was contracted by AGRA to conduct the end of program evaluation of MAP, focusing on five of the program countries, namely Kenya, Tanzania, Ghana, Mozambique and Burkina Faso. As part of the evaluation, the Genesis team conducted site visits to Kenya, Tanzania, Ghana and Mozambique, and engaged local consultants to conduct data collection activities in Burkina Faso. The fieldwork was conducted between 21 January and 8 February 2019, which was complemented by a review of data and documentation provided by the AGRA team.

This evaluation report captures the main achievements of the program to date, including strategic and operational successes and challenges; drawing on the perspectives of program stakeholders and beneficiaries. The findings and the analysis thereof are presented according to the OECD Development Assistance Committee (DAC) criteria: Relevance, Efficiency, Effectiveness, Impact and Sustainability. The report then concludes with the key lessons learned through the evaluation and corresponding recommendations. The Appendix includes brief overviews of each of the MAP partners consulted during the evaluation, detailed lists of the stakeholders consulted and documents reviewed, as well as the evaluation framework.

1.1. PURPOSE OF THE EVALUATION

The purpose of this end of program evaluation is to formulate a reasoned and independent view of the relevance, efficiency, effectiveness, impact and sustainability of the program in light of its initial goals and targets. This evaluation will also communicate lessons learned from the program on how to facilitate access to markets for smallholder farmers, and allow them to realize the potential of their harvests. Specifically, the evaluation will:

- Assess the successes and challenges experienced in the implementation of the program against its targets and aims, while also taking into consideration the recommendations from the mid-term evaluation;
- Evaluate the impact the program has had on the value chains it has intervened in, and determine to what degree these changes have translated into better access to markets, and whether this has allowed smallholder farmers to realize greater returns from their agricultural investments; and,
- Put forward recommendations that AGRA should consider for future programming to maximize its effectiveness at making markets work for smallholder farmers.

¹ Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Tanzania, Togo, Uganda and Zambia.

2. OVERVIEW OF MAP

2.1. BACKGROUND AND CONTEXT

In Africa, agriculture is a large and important sector with great potential for growth. In 2017, agriculture contributed approximately 26% (USD 53,9 billion) to the combined GDP of Burkina Faso, Ghana, Kenya, Mozambique, and Tanzania.² In the developing world, while smallholder agriculture provides the majority of food consumed, smallholder farmers are often extremely poor, barely produce enough to meet their own families' food requirements,³ and are the largest recipients of food aid in the world.⁴ These smallholder farmers lag behind the rest of the world in terms of on-farm productivity and their land remains underused,⁵ meaning that there is significant potential for growth. World Bank data on cereal yields, a proxy for agricultural productivity,⁶ for 2014 confirms this, with low-income countries producing less than half the global average of cereal produced per hectare.⁷

While it is possible to increase yields significantly, it is also important to focus on the value chain beyond production, to ensure that farmers are able to realize value from increased yields, and that they are meeting market demands. Smallholders in these markets face a number of constraints that can diminish the positive impact of improved yields. For example:

- Smallholder farmers experience large post-harvest losses due to poor post-harvest management;
- Systems are not in place for effective sorting, grading, storing, transportation and aggregation of produce;
- Farmers have limited access to buyers in larger markets, who are in turn unwilling to purchase small volumes from individual farmers; and,
- Smallholder farmers typically require upfront payment to cover immediate needs.

These constraints result in smallholders having to sell to whomever they can, usually traders who have upfront capital, and accepting low prices for their produce. Where farmers have accessed credit to purchase inputs for improved yield, they may even end up in a worse situation after the harvest if they are unable to realize sufficient value from their increased yields to cover their repayments. This, in turn, can create negative perceptions of productivity-enhancing interventions, which could lead to dis-adoption of newly acquired agricultural resources and practices if there is insufficient consideration for market access.

2.2. MARKET ACCESS PROGRAM

In response to these challenges, AGRA developed MAP with the aim of improving post-harvest management and market opportunities for smallholder farmers in 14 countries across Africa. MAP's core objectives were as follows:

1. Reduce transaction costs for smallholder farmers
2. Increase value addition in food usage

² The World Bank (2018), World Development Indicators: structure of output.

³ Kristjanson, P., Henry Neufeldt, Anja Gassner, Joash Mango, Florence B. Kyazze, Solomon Desta, George Sayula, Brian Thiede, Wiebke Förch, Philip K. Thornton, Richard Coe, Are food insecure smallholder households making changes in their farming practices? Evidence from East Africa, 2012

⁴ The World Food Program, 2017.

⁵ Duflo, E., Kremer, M., and Robinson, J., Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya, 2011.

⁶ Giovanni Federico, The Growth of World Agricultural Production, 1800–1938, Research in Economic History, 2004.

⁷ The World Bank, World Development Indicators: Cereal yields, 2014

3. Increase demand of food staples through alternative usage
4. Promote an enabling environment for local and regional trade of food staples.

AGRA received a grant from the Bill and Melinda Gates Foundation in 2010 to the value of USD 28 000 000 to implement MAP in five countries, namely Ghana, Mali, Mozambique, Kenya and Tanzania. Burkina Faso later replaced Mali as a focus country when the security situation in Mali deteriorated.

From this umbrella grant, AGRA disbursed smaller grants ranging from USD 59 034 to USD 1 745 315, to local partner organizations in the program countries to implement specific interventions that targeted particular market access constraints. The AGRA MAP team have also undertaken direct policy and advocacy activities to support an enabling environment for local and regional trade in food staples.

2.2.1. Theory of change

Based on an initial bottom-up scoping and business planning exercise conducted in 2009, and in line with the above objectives, AGRA identified the following intervention archetypes to be implemented through partner organizations:

- **Direct Procurement:** through this intervention type, MAP links smallholder farmers to small and medium enterprises (SMEs) and top of supply chain buyers. Through these linkages, farmers obtain a clear market for their produce and provide the off-takers with more reliable supply that is in line with their needs and specifications. By facilitating direct linkages to buyers, the program intends to reduce transaction costs and increase the demand of food staples through alternative uses.
- **Market Development:** through this intervention type, MAP supports activities which aim to promote the commercialization of agriculture. These activities include, for example, farmer organization strengthening and SME capacity building, identifying and engaging alternative uses for commodities, facilitating access to capital and credit, and policy advocacy. However, the specific activities undertaken in each program country vary according to country and/or value chain needs. These activities contribute to a number of the program's strategic objectives. For instance, farmer organization strengthening and capacity building aim to reduce transactions costs. In contrast, by facilitating access to finance and engaging in policy advocacy, MAP intends to promote an enabling environment for local and regional trade.
- **Storage & Services:** this category of interventions includes all of the activities and resources necessary for the successful functioning of a structured trading system, such as a warehouse receipt system (WRS) or commodity exchange. Relevant activities include training and capacity building for value chain actors, facilitating access to credit, providing access to improved market information, and building/rehabilitating existing storage infrastructure. While developing storage infrastructure contributes to increased value addition, providing market information and training on structured trade systems contributes to reduced transaction costs.

3. EVALUATION APPROACH AND METHODS

The approach to this evaluation was developed in response to the terms of reference issued by AGRA, and was in turn agreed by AGRA in the evaluation design report submitted to AGRA in January 2019, prior to the commencement of data collection.

3.1. EVALUATION FRAMEWORK

The evaluation was based on an evaluation framework that guided the development of data collection tools and subsequent stakeholder consultations. This framework was also used to interpret and analyze the evaluation findings to ensure objectivity and consistency throughout the review process.

The evaluation framework was structured according to the OECD Development Assistance Committee (DAC) criteria of relevance, effectiveness, efficiency, impact and sustainability (described further in Table 1 below). Under each criterion, key evaluation questions were identified to interrogate specific topics such as MAP's structure, approach, successes, challenges and lessons learned. Multiple data sources were drawn on to answer each evaluation question, thereby ensuring triangulation of data. These data sources are described in more detail in the section that follows.

Table 1: DAC criteria

DAC criterion	Description
Relevance	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.
Effectiveness	A measure of the extent to which an intervention activity attains its objectives.
Efficiency	Efficiency measures the outputs -- qualitative and quantitative -- in relation to the inputs. It is an economic term which signifies that the aid uses the least costly resources possible in order to achieve the desired results.
Impact	The positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended.
Sustainability	Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn. Projects need to be environmentally as well as financially sustainable.

The full evaluation framework, including the methods that were used to collect the data, is presented in Appendix 2: Evaluation framework. The sections of the evaluation framework relevant to each criterion are included at the beginning of each section of the report for ease of reference.

3.2. DATA COLLECTION METHODS

This evaluation relied predominantly on qualitative data, collected for the purposes of this assignment. This primary data was supported by secondary quantitative data, provided by AGRA. The data collection methods are described in more detail below and the data collection tools have been included in Appendix 5.

3.2.1. Desktop Review

The desktop review included an analysis of all relevant documents provided by AGRA, including the following:

- Background documents and grant agreement
- MAP progress reports
- MAP strategy and grant documents
- Other studies and reports (mid-term evaluation, external literature)

The evaluation team also reviewed monitoring data, where this was provided by AGRA, to assess the performance of the program's key metrics.

The full list of data and documentation that was consulted is provided in the Appendix 4: Documents Reviewed.

3.2.2. Key informant interviews (KIIs)

The evaluation relied heavily on a series of key informant interviews (KIIs) with a range of stakeholder groups that have been engaged with AGRA through the MAP. This section outlines the principles used for determining the number of KIIs conducted and describes the stakeholders consulted as part of the evaluation.

3.2.2.1. Guidelines for sample sizes in qualitative data

A key principle in sampling for qualitative research is that “the quality of the data and the number of interviews per participant determine the amount of usable data obtained.”⁸ Data saturation and information power thus guide qualitative sample size decisions – the more information each key informant holds, the smaller the sample size needed to conduct the study. This means that, while quantitative data requires higher response rates to identify consistent trends, with qualitative data, fewer responses are required to capture sentiment and detailed opinion. The greater the amount of usable data obtained from each person, the fewer the number of participants required to reach saturation.⁹ When undertaking research that is reliant on a phenomenological approach, the sample size is usually driven by the need to uncover all the main variants within the approach. In these instances, small samples of less than twenty are common.¹⁰

3.2.2.2. KIIs conducted

The KIIs for this evaluation were conducted both in-person and telephonically and targeted three main stakeholder groups:

- **AGRA MAP team:** These interviews, conducted at AGRA headquarters in Nairobi aimed to understand how MAP was designed, how AGRA has operationalized its approach, its offer to grantees and other program partners, the implementation and performance of MAP, and how lessons learned can be used to inform future programming.
- **AGRA country teams:** These interviews were focused on understanding how MAP was operationalized at a country level and how lessons learned from MAP have been incorporated into current programming. It is understood that the country teams were not necessarily operational at the time that MAP was being implemented.
- **Partners:** This included organizations that make up MAP’s portfolio such as partners and sub-partners. These interviews aimed to understand the experiences of MAP from the perspective of partners and how this aligns with the program objectives, as well as the needs of the agricultural sector in relation to promoting market access.
- **Program beneficiaries:** This included organizations and/or program beneficiaries with a view of the markets for the value chains of focus in each country, such as aggregators, traders, processors and smallholder farmers. These KIIs occurred both face-to-face during our country visits or telephonically and aimed to understand the experiences of MAP through the implementing partners and how the program has affected their daily lives and agricultural/business operations.

The following table provides an overview of the number of interviews we conducted per stakeholder:

⁸ Patton, M.Q. 2015. *Qualitative Research & Evaluation Methods – Integrating Theory and Practice*. Minnesota: Sage Publishing

⁹ Ibid.

¹⁰ Guest, G et al. *How many interviews are enough? An experiment with data saturation and variability*. *Field Methods*, Vol. 18, No 1. 2006: 59-82

Table 2: Summary of interviews conducted by stakeholder group

Stakeholder group	Number of interviews
AGRA HQ	6
AGRA country teams	5
Partners	20
Beneficiaries	28
Total	59

The total number of interviews conducted was determined by the selection of partners, the size and availability of the partner project teams, as well as the availability of the program stakeholders and beneficiaries. The complete stakeholder list is provided in Appendix 3: Stakeholders Consulted.

3.2.3. Focus group discussions

10 focus group discussions (FGDs) with beneficiaries of the program were conducted; with approximately two FGDs in each of the five countries of focus. The purpose of the FGDs was to capture beneficiaries' experiences with the different program interventions and how the program has impacted their livelihoods, farm production, post-harvest management, access to markets and incomes.

The FGD participants were selected with the support of project grantees and included beneficiaries of various ages, sex and value chains. As part of the FGDs, the evaluation team made use of pocket voting, a participatory approach used to elicit honest reactions on the relevance and impact of the program. This approach is interactive, gives each participant the opportunity to present their opinion in a confidential space and allows for open communication across cultures and languages. The procedure involved asking participants to anonymously vote by allocating tokens (in this instance stones) into envelopes with pictures depicting various market access constraints that the program aimed to address. The evaluation team set up a 'voting station' hidden from view, and each farmer went to the voting station one at a time to cast their votes. The votes were then tallied in front of the FGD participants to stimulate a conversation as well as visually demonstrate to the farmers that this was an environment where there were no right or wrong answers and they were free to answer honestly without judgement. The findings from this participatory research are triangulated against other data collected through the fieldwork.

Figure 1: FGD participant places her votes during the pocket voting exercise in Makueni County in Kenya



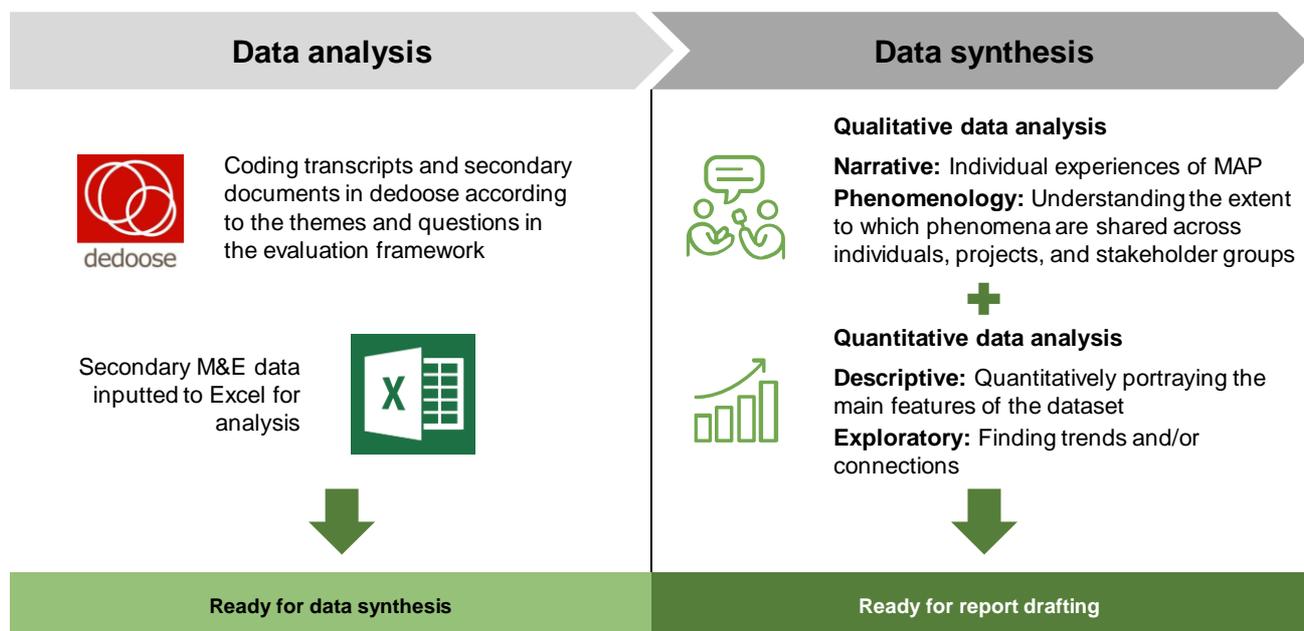
3.3. DATA ANALYSIS AND SYNTHESIS

The evaluation team conducted inductive thematic analysis to analyse the qualitative data collected for this evaluation. This entails identifying themes relevant to the assignment to compile a list of 'codes' which are then assigned to relevant quotations from the KII and FGD transcripts, as well as the program documents. These codes for this evaluation were structured according to the DAC criteria and associated evaluation questions as per the evaluation framework, as requested by AGRA. The evaluation team then interpreted the final output taking account of the frequency with which certain codes present and repeat throughout the analysis. The

process of coding was carried out using a software known as Dedoose. The secondary quantitative data provided by AGRA (in the form of IPTTs) was analyzed using Excel.

Following this process, the evaluation team synthesized findings from the qualitative and quantitative data analysis in order to develop key insights. The full data analysis and synthesis process is presented in Figure 2 below.

Figure 2: Data analysis and synthesis process



3.3.1. Case studies

To enable the evaluation to gather a deep understanding of MAP's impact on grantees, beneficiaries and contribution to meaningful improvements to the market infrastructure of core food staples in Africa, the evaluation has compiled a total of 15 case studies (three cases per country) to capture lessons arising from the experience of partners in each of the focus countries. These cases are presented in Appendix 1: Partner profiles.

3.3.1.1. Case study selection

To select the projects for the case study analysis, the evaluation drew on the database of all MAP grants issued since 2010. This list comprised a total of 48 projects across the five countries selected for evaluation. The evaluation team then narrowed down this database to a short list of 25 projects, which was shared with AGRA for their input and guidance as to which projects would both yield the most interesting learnings (both positive and negative) for them and be feasible to visit during the country site visits. The list was compiled taking the following factors into consideration:

- Projects that ended before and during 2015 were excluded from the case study analysis based on the fact that these projects would have already been included in the mid-term evaluation.¹¹ Additionally, given that these projects ended some time ago, there is a high chance that the evaluation team would be unable to locate the beneficiaries of these projects and/or that stakeholders' recall of the projects would be

¹¹ While earlier projects were excluded from the case study selection, they were included in the overall evaluation. For instance, earlier projects were included in the review of monitoring data as well as the assessment of integration.

compromised. Project selection was thus largely limited to projects that ended between 2016-2018 (or are still ongoing).

- Project selection included spread of the three intervention archetypes as well as different grant sizes.
- Preference was also given to those projects that have been integrated with other AGRA programs (PASS, SHP, Policy). The reason for this is so that the evaluation team can assess the extent to which this integration was successful, and to identify lessons learned that might inform AGRA's new integrated approach.

From this short list, AGRA identified the 15 projects for inclusion in the final sample, with three projects in each country. The final sample is documented in the table below.

Table 3: Final sample of projects to be included in the evaluation

Country	Grantee Name	Year ended	Status
Burkina Faso 	APME2A Burkina Faso	2015	Ended
	GRAD Consulting Group Burkina Faso	Ongoing	Ongoing
	SICAREX Burkina Faso	2016	Ended
Ghana 	Concern Universal, Ghana	2016	Ended
	Ghana Grain Council	2016	Ended
	IMAGE-AD Company Limited Ghana	2016	Ended
Kenya 	Agricultural Market Development Trust (AGMARK) - SAIOMA	2016	Ended
	EAGC Kenya	2018	Ended
	Farm Concern International, Kenya	2016	Ended
Mozambique 	Agência de Desenvolvimento Económico da Província de Manica (ADEM), Mozambique	2017	Ended
	Adventist Development and Relief Agency (ADRA) Mozambique	2016	Ended
	TechnoServe Mozambique	Ongoing	Ongoing
Tanzania 	Center for Sustainable Development Initiative (CSDI) Tanzania	Ongoing	Ongoing
	Center for Sustainable Development Initiative (CSDI) Tanzania	2016	Ended
	SNV Tanzania (Integrated Breadbasket grant)	2017	Ended

3.4. FIELDWORK OBSERVATIONS AND DATA LIMITATIONS

This section outlines the successes and challenges that the evaluation team encountered in undertaking the fieldwork for this evaluation.

The data collection has been successful for a number of reasons outlined below:

- The AGRA team have largely responded positively to the evaluation and have assisted the evaluation team in setting up interviews with partners.
- The key informants interviewed have been candid with their responses, which has resulted in a transparent and open interview process. Direct insights have been shared on the effectiveness and efficiency of MAP, its relevance, and AGRA's work in relation to the broader agricultural sector and learnings arising from the project. This enabled informed recommendations on how to improve AGRA markets programming going forward.
- The use of tailored interview tools based on the stakeholder profiles and their interaction with MAP enabled interviewees to provide comprehensive responses to each evaluation question.

The following are some of the challenges experienced by the evaluation team during fieldwork, which may have affected the evaluation findings:

- Due to the escalating security situation in Burkina Faso, it was deemed unsafe by both Genesis and AGRA to send a Genesis fieldwork team to Burkina Faso. To mitigate this challenge, Genesis engaged two local consultants to conduct the fieldwork in country during the week of 4-8 February, who met with the AGRA country team, as well as the project partners and beneficiaries. Prior to going in field, the local consultants were briefed by Genesis on the purpose of the fieldwork and trained on the data collection tools. The data collection tools were also translated into French prior to fieldwork to ensure that the local consultants fully comprehended the questions to be asked of respondents. Due to poor internet connectivity in Burkina Faso, it was not possible for the local consultants to dial in the Genesis team member responsible for the Burkina Faso fieldwork during their meetings. However, the consultants provided us with their fieldwork notes and wrote up the findings from the Burkina Faso fieldwork in a separate report submitted to Genesis as an input into the evaluation report.
- All site visits were conducted over a period of one week per country, during which time the evaluation team met with the AGRA country staff, the selected project partners, as well as a sample of the project beneficiaries. Given how geographically spread out the partners in each of the countries are and the limited time frame within which the evaluation team was able to conduct the fieldwork, the evaluation team was forced to select beneficiaries using convenience sampling to make the most efficient use of time in country. This meant that the evaluation team had less control over sampling and had to rely on project partners to sample beneficiaries for FGDs. For the Ghana Grains Council FGD, this resulted in only male beneficiaries attending the FGD, and therefore, a uniquely male perspective of the project. Another particular example of where this was a challenge was in reaching the beneficiaries of ADEM in Mozambique. The evaluation team was told on arrival that the beneficiaries for the particular project in question were all located too far away, and so the evaluation team instead met with the beneficiaries of an earlier MAP-funded project that was located closer to Chimoio and implemented in conjunction with another AGRA partner, MICAIA Foundation.
- The evaluation team initially encountered challenges during the fieldwork in Tanzania as the appropriate protocol was not followed prior to engaging smallholder farmers. The evaluation team was informed on arriving in country that the donor or development partner should inform the relevant local government authority prior to engaging with smallholder farmers. This resulted in a brief pause in data collection to allow the evaluation team to obtain the necessary documents from the AGRA team in Tanzania. Despite these challenges, the evaluation team was able to complete the fieldwork and believe that the quality of the data collected has not been affected.

- For one of the FGDs in Ghana, only three of the 10 participants were able to attend, as there was a fire on the beneficiaries' farms.¹² While a smaller FGD group limits the diversity of experiences covered in discussions, having a smaller group was also beneficial in that the evaluation team was able to probe experiences in depth.
- The quality of the data reported in this evaluation report is to a large extent dependent on the accuracy of participants' recall of past exposure to MAP-funded projects. Given that the majority of projects included as part of the evaluation were conducted between 2015 and 2016, and that AGRA has funded multiple projects with certain beneficiary populations, there is potential for recall bias amongst MAP beneficiaries, which may result in under- or over-estimation of the impact and outcomes of MAP. The evaluation team attempted to mitigate this by making specific reference to the implementing partners and the project names, as opposed to AGRA, and beneficiaries were asked to think back to their respective MAP-supported projects.
- Finally, the monitoring data provided to the evaluation team by AGRA was incomplete (not all partners had IPTTs, since these were introduced towards the end of the program). Furthermore, the evaluation team discovered that there were a number of discrepancies between the indicators being monitored by the program and the milestones for the BMGF grant (only 3 out of the 10 program milestones have matching indicators), and that there were no targets for the program assigned at the country level. These data limitations meant that the evaluation team was only able to quantitatively assess the program's performance against targets for the indicators that matched the three milestones, and this analysis could not be disaggregated by country. Therefore, the Effectiveness section relies predominantly on qualitative data to assess the factors contributing to, and detracting from, achievement of objectives. Where possible, the evaluation team have used the program data to complement findings.

4. FINDINGS AND ANALYSIS

4.1. RELEVANCE

The 'Relevance' criterion investigates "*the extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.*"¹³ This section begins with an overview of the key questions included in the evaluation in order to assess program relevance. The section then provides an assessment of the relevance of the MAP intervention, based on a review of the [MAP strategy](#), the [Intervention design](#), [Partner selection](#) and [Consortium approach](#). A summary of key findings is provided below.

The evaluation questions are depicted in Table 4 below. Each of the Relevance questions is mapped to the method used and stakeholder group engaged to answer each question.

Table 4: Evaluation framework - Relevance

Evaluation questions	Desktop review	KII: AGRA (HQ)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
Relevance					
Does the portfolio of partners that MAP has assembled align with the program Theory of Change? Was the portfolio of funded interventions aligned with the overall purpose of the MAP?	X	X			
How did MAP partners seek to understand the needs of their intended beneficiaries and how did they design the projects to meet those needs?		X		X	

¹² Concern Universal FGD.

¹³ DAC Criteria, OECD website: <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

Evaluation questions	Desktop review	KII: AGRA (HQ)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
To what extent were the services offered appropriate to the needs and capability of the beneficiaries?		X		X	X
To what extent was the division of interventions into the three archetypes (DP, MD, SS) been useful and appropriate to the execution of the program?	X	X			
To what extent was the program model/execution strategy adapted based on particular country contexts?	X	X			
To what extent were the MAP interventions relevant to the particular market constraints and value chains in each of the program countries?		X	X	X	

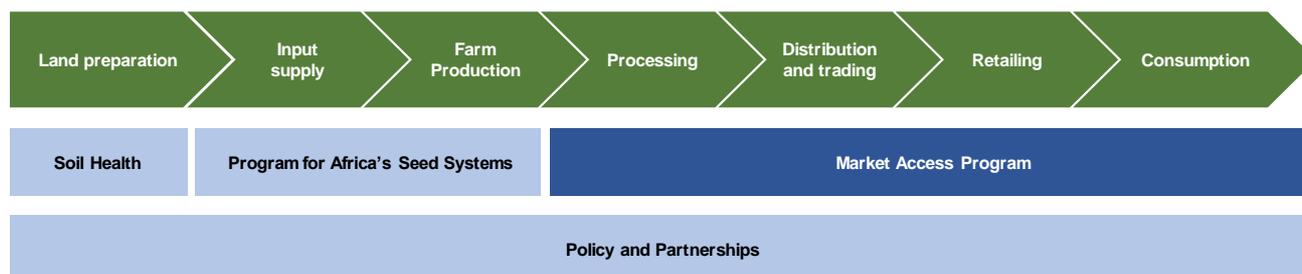
Relevance: Summary of key findings

- MAP's strategy focused on postharvest stages of the agricultural value chain, and aimed to reduce postharvest losses and increase smallholder farmers' participation in markets. While targeted activities and value chains were based on an initial business plan development process, thereby aiming to ensure relevance to country context, these plans were not updated to ensure ongoing relevance of interventions in each country. This may have limited the relevance of specific interventions; for instance, updating the country business plans for Kenya and Ghana may have assisted the MAP team in identifying barriers to structured trading. In long term programs, such as MAP, it is important to update country strategies to ensure ongoing relevance of interventions.
- Additionally, while the strategic focus was initially on postharvest activities, many of the projects funded through MAP included training in good agricultural practices (GAPs), representing a shift from the program's strategy. However, this shift was the product of an adaptive strategy and was relevant given many of the beneficiaries reporting that production was a challenge for them prior to their participation in the program.
- MAP's strategy increased in relevance as it evolved to include an increased emphasis on program integration, following changes in AGRA's organizational strategy. This shift in strategy was relevant as many of the smallholder farmers needed pre-harvest and production assistance in order to improve yields and enable access to markets.
- While scoping exercises were undertaken for hypothesis testing during the business planning process, it appears to be the case that feasibility assessments were not consistently conducted prior to designing and implementing *individual* projects, thereby potentially limiting project relevance to beneficiaries. For example, had these assessments been completed, it is likely that AGRA and project partners would have realized earlier on that beneficiaries required assistance in improving production.
- Despite these questions, the evaluation team created a model of smallholder farmers' needs to enable them to participate in markets, and found that the activities were relevant to beneficiary needs. Many of these needs were addressed through AGRA's integrated interventions; indeed, even those needs which were not explicitly targeted were addressed.
- There were two key assumptions underlying MAP's theory of change which did not hold, thereby limiting the relevance of specific interventions. Firstly, stimulating demand for alternative uses of food crops was not relevant, as few of the smallholder farmers produced sufficient yields to be competitive in this area. Secondly, while warehouse receipting is very relevant for structure trading, the relevance of the MAP WRS interventions was limited in part due to policy and regulatory environments, as well as constraints faced by smallholder farmers.
- While MAP applied relevant selection criteria in identifying partners, some partners noted that a wider range of types organizations should have been engaged as most of the partners were NGOs. That is, some partners noted that more government and private sector partners should have been engaged as these organizations tend to have a more sustained presence in countries. AGRA recognized this opportunity and started engaging more government and private sector partners from year four.
- Finally, partners explained that the consortium approach was relevant in implementing projects as consortium members could come together to address a wider ambit of needs and constraints. However, partners noted that working as part of a consortium requires considerable time to manage and that further support should be provided to enable partners to more effectively work together.

4.1.1. MAP strategy

The MAP strategy evolved based on the recognition that developing functional agricultural markets is essential to absorb increased output that arises from productivity-enhancing interventions. While AGRA's two pre-existing programs, Program for Africa's Seed Systems (PASS) and Soil Health Program (SHP) focused on developing the early stages of the agricultural value chain, MAP moved beyond production to the post-harvest stages of the value chain. Each of these programs are mapped to the relevant value chain stages in Figure 3 below, to reflect the stage addressed by each program.

Figure 3: AGRA's work across the agricultural value chain



As discussed in the Theory of Change section above, the overall MAP strategy, segmented into the three intervention archetypes, intended to build the commercial orientation of smallholder farmers by encouraging aggregation and value addition, and reducing transaction costs associated with trade. This conceptualization was based on an initial bottom-up assessment of the key post-harvest and market access constraints facing smallholder farmers in each of the targeted countries. Based on these assessments, the MAP team then developed key priority areas or 'business plans' for each of the countries, thus aiming to ensure the relevance of the intervention to each country's context.

However, while scoping each country's context and developing country plans accordingly aims to ensure the relevance of the intervention, **these country plans were not formally updated over time to reflect changes in country context or AGRA strategy.** Formally updating country business plans to reflect contextual changes is important to ensuring the continued relevance of interventions, as well as internal alignment on objectives, particularly during the course of a longer-term program like MAP.

Additionally, MAP's strategy was oriented around the three intervention archetypes, these were not applied as distinct delivery models for project implementation. In reality, many of the MAP grants supported interventions that combined activities across multiple archetypes to address a wider range of challenges. **This execution of the programmatic strategy is appropriate given the multidimensional nature of the post-harvest challenges experienced by smallholder farmers in the targeted countries, as well as the dynamic nature of market systems, thereby placing AGRA in a better position to achieve MAP's strategic objectives.** This will be discussed further in the *Intervention Design* section below.

What is also notable from Figure 3 above, is that while MAP explicitly targeted the post-harvest stage of the value chain, in reality, some of the MAP grants intervened in the pre-harvest and production stages of the value chain based on identified farmer needs. For instance, IMAGE-AD in Ghana aimed to link smallholder farmers with input suppliers, while the YieldWise project in Tanzania trained farmers on GAPs.¹⁴ In the latter case, support in GAPs assisted in providing the necessary assurance to off-takers prior to harvest and supported farmer productivity and competitiveness. While this represents a shift in execution of programmatic strategy, it is relevant given the needs of project beneficiaries. One AGRA staff member noted that AGRA's recognition of

¹⁴ Neither of these projects were integrated with AGRA's other programs, which would have explained the inclusion of these activities.

the importance of a holistic package of support, spanning the value chain, also informed AGRA's emergent strategy of consortia-based implementation.

4.1.1.1. Integration with AGRA's other programs

The main premise behind MAP was the need for smallholder farmers to access markets for their produce, following improvements in yields under previous AGRA interventions. AGRA recognized this, and the MAP Business Plan emphasized that MAP was intended to complement AGRA's pre-existing programs and emphasized integrated interventions. The MAP Business Plan states, "*As markets are an essential component of an integrated approach to agricultural development, AGRA has decided to roll-out a Market Access Program to complement its already established PASS, SHP and Policy programs.*"¹⁵ **Despite this emphasis, many of the earlier projects were not integrated with AGRA's other programs.** According to one AGRA staff member, this was in large part due to the organization's siloed nature at the beginning of the program, and difficulties in coordinating budgets and deliverables across programs.

This lack of integration across AGRA as an organization meant that MAP was frequently implemented in isolation from the other programs, which reduced the relevance of the interventions to the targeted populations. Had AGRA targeted previously-supported beneficiaries, this would have ensured that the targeted beneficiaries were in fact in need of post-harvest support, having *already improved* their land preparation and farm production practices. Instead, many of the beneficiaries engaged during the evaluation noted that yields were still a challenge for them, and explained that training in GAPs was still needed. This is not to state that the program's strategic focus was not relevant to the needs of the beneficiaries in general, but that the post-harvest and marketing focus would have been *more relevant* to beneficiaries who had already received support in earlier stages of the value chain, such as through SHP or PASS. An example in this regard is provided in Box 1 below.

Box 1: Continued need for pre-harvest support: an example from Mozambique

The evaluation team engaged ADRA in Mozambique, whose organization implemented a project to improve smallholder farmers' access to markets. ADRA noted that a gap in the design of their intervention was the sole focus on marketing. During the course of implementation, ADRA realized that their beneficiaries were also in need of production assistance, which constrained their marketing activities. However, due to the project timeline, they were not able to revise the intervention design to be more responsive to beneficiary needs. The partner has taken these lessons into the latest project they are implementing to assist beneficiaries in improving their production.

Recognizing this need for more integrated programming, AGRA revised its strategy in 2017 to focus on supporting more holistic projects that address challenges along the entire agricultural value chain. As AGRA moved towards this strategy, a larger share of the funded projects under MAP became integrated with other AGRA programs, including PASS, SHP and Farmer Organization Support Centre in Africa (FOSCA). As a result, 42% of funded projects in the five evaluation countries have been integrated with other programs.¹⁶

It was noted by AGRA that, while the MAP strategy was not formally updated to reflect AGRA's new strategic focus on integrated delivery, once this was established at an organizational level, no new projects would be approved unless they were aligned to the new AGRA strategy. Updating programmatic strategies to reflect changes in the organization's strategic orientation is important to ensuring alignment in objectives.

¹⁵ AGRA, Market Access Program Business Plan, 2009

¹⁶ AGRA, List of all Markets grants by year and country since 2010.

4.1.2. MAP Intervention design

This section interrogates the design of MAP as a whole, based on its relevance to targeted beneficiaries. The section also reviews the relevance of specific activities, based on the program's context.

4.1.2.1. Understanding the needs of smallholder farmers

Scoping beneficiary needs prior to project design through a feasibility assessment is important in ensuring that the activities are responsive to the needs of targeted beneficiaries. Prior to program implementation, AGRA conducted country-level baseline studies which identified needs and opportunities in each of the country contexts and informed the overarching country strategies. These baseline studies were conducted by AGRA instead of individual partners in order to make efficient use of time, expertise and resources. It was reported that in many instances, the MAP projects would draw on these country-level baseline studies to understand the beneficiary needs, but there would be no feasibility assessment conducted at an individual project level.

However, while the country-level baselines were found to be useful, it is important to note one criticism levelled by project partners. According to some partners, project ideas were initially conceptualized by program officers in Nairobi and certain design features were either incorporated or excluded based on AGRA's perception of the beneficiary needs (from the country-level baselines), rather than realities on the ground. This criticism indicates that, at least in some instances, beneficiary needs may not have been clearly scoped prior to project design and implementation. In other instances, it may have been the case that requested design features were excluded on the basis that they were beyond the scope of the project, as noted by one AGRA staff member.

In other cases, projects were funded as extensions of pre-existing projects. In these cases, partners explained that their understanding of the needs of targeted beneficiaries were based on their experience working through the initial project. This was explained by Concern Universal¹⁷ in Ghana, for example, where DMAPS Plus was an extension of the initial DMAPS project, which aimed to consolidate results by continuing support efforts with 5 000 of the beneficiaries that were initially targeted through the first phase of the project.

Finally, some project proposals discussed conducting needs assessments with beneficiaries, *following beneficiary identification*. This was primarily the case for projects engaging SMEs to provide business development support (BDS) services, where each SME was evaluated to identify gaps that needed support. However, it is not clear whether any needs assessments were conducted *prior to designing* the interventions and selecting the beneficiary SMEs in question.

4.1.2.2. Meeting the needs of smallholder farmers

To assess the relevance of MAP to its target group, we need to first understand what the needs of these beneficiaries are. While it is important to note that the beneficiaries are a diverse group, working in different countries and value chains, some common needs and challenges emerged during the evaluation.

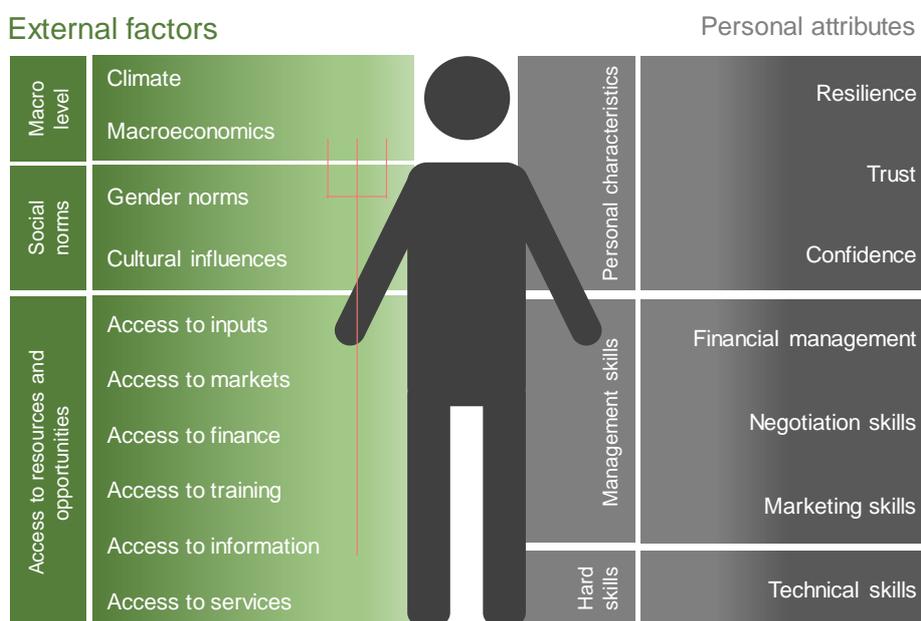
At a high level, smallholder farmers in the targeted countries experience high post-harvest losses and barriers to accessing markets for their produce. **Thus, MAP's overall goal to respond to post-harvest challenges is relevant to the most pressing needs of the targeted beneficiaries.**

To assess whether the specific activities of MAP are consistent with achieving this goal, we established a model of external factors, personal attributes and skills which influence smallholder farmers' ability to participate in

¹⁷ Now United Purpose.

post-harvest value chains.¹⁸ This model was developed on the basis of our discussions with AGRA staff, project partners, and the program beneficiaries, and is presented in Figure 4 below.

Figure 4: Model of smallholder farmer needs



This model expresses the internal attributes of the smallholder farmers that enable the farmers to become increasingly commercially oriented and participate in markets, as well as external factors which influence smallholder farmers’ engagement in value chains.

Internal attributes begin with the smallholder farmers’ personal characteristics. While AGRA’s projects may not have explicitly aimed to address these characteristics, activities such as farmer organization can increase interpersonal trust among farmers. Management skills are addressed through interventions which focus on business development and marketing, while hard skills are addressed through training in post-harvest handling, for example.

Even if a farmer has all the attributes depicted above, external factors can still influence their ability to participate in value chains. Our model depicts these in three major categories; firstly, macro-level influences, such as the economic performance of the country or the climate. Through enabling environment activities and integration with AGRA’s Policy and Partnerships program, MAP intended to address some of these macro-level issues. The second external factor relates to social norms and legal structures, such as the perceptions of society on the role of certain genders. MAP’s proposal to Bill and Melinda Gates Foundation recognized the need to address the specific challenges that women face. In this regard, the TechnoServe project in Mozambique provide threshing equipment to women commercial farmers, while Strengthening Agricultural Input and Output Markets in Africa (SAIOMA) aimed to increase women’s leadership in farmer organizations. The final category of external factors informing smallholder farmers’ ability to access markets is access to resources and opportunities. This group of external factors is directly addressed through all of the projects funded through MAP. The degree to which each of these categories of needs can be influenced increases as we move down this list in Figure 4above.

Against this model, the following table maps out how MAP activities have the potential to respond to the needs of beneficiaries. The top rows indicate the activities that map to each archetype, while the bottom section

¹⁸ This model focuses on post-harvest needs and competencies, as this is the focus of the MAP strategy.

indicates how each of the activities develop personal attributes and address external influences that influence smallholder farmers' ability to access opportunities along the value chain post-harvest.

Table 5: What MAP does

		MAP activities	Aggregation & organization	Market linkages	Marketing	Structured trading systems	Alternative uses	Processing & value addition	Risk management	Quality management	Governance	Policy advocacy	Market information	Business development	Access to finance	Infrastructure & equipment	Storage techniques	Post-harvest handling	
			Personal attributes to develop		Management skills		Hard skills		Macro-level influences		Social norms		Access needs						
Personal attributes to develop	Personal characteristics	Resilience					█									█	█		
		Trust	█	█		█													
		Confidence																	
	Management skills	Financial management													█				
		Negotiation skills			█									█	█				
		Marketing skills			█														
Hard skills	Technical skills				█		█										█	█	
	Macro-level influences	Climate																	
External factors influencing farmers needs	Macro-level influences		Macroeconomics				█						█						
	Social norms		Influenced through project participation and farmer organization																
	Access needs		Access to inputs		█	█											█		
	Access to markets		█	█	█	█	█	█	█	█	█	█						█	
	Access to finance		█			█			█							█	█		
	Access to training														█			█	█
	Access to information													█					
	Access to services			█													█		

█ Directly addresses █ Contributes █ Provides opportunities

The table above demonstrates the way in which different activities either directly address, contribute to, or provide opportunities to address the range of internal and external needs identified during our research. This shows that some activities address multiple needs, some of which were not necessarily explicitly targeted by the intervention. For instance, while projects focused on market linkages directly address access to markets and inputs, these interventions can also contribute to increased interpersonal trust among value chain actors. This was demonstrated in Ghana, where SMEs explained that the training received and market linkages improved relationships and understanding between the smallholder farmers and SMEs. Influence on trust and social cohesion was similarly noted through interventions in Burkina Faso. It is a positive finding that **MAP**

contributed to beneficiary needs that were not always explicitly targeted by the program, which is an unintended effect of the program.

However, it is important to note that even though some activities may theoretically respond to farmer needs, this is not necessarily the case in every intervention. For instance, an intervention focusing on aggregation and organization contributes to access to markets and trust, and provides opportunities for access to inputs and finance. However, one partner in Mozambique noted that activities focused on aggregation were less successful, due to a lack of trust amongst farmers. Therefore, while this activity theoretically *has the potential* to contribute to trust, this is not necessarily the case in reality, especially in contexts where historical country conditions limit interpersonal trust in general.¹⁹

The table also demonstrates that each of the program activities respond to specific needs of the smallholder farmers and no single activity addresses the full set of farmer needs.²⁰ Therefore, while the projects which are neatly categorized into a single archetype may not comprehensively cover the full ambit of needs of the targeted beneficiaries, **the shift toward funding more holistic interventions, spanning multiple archetypes, enhances the projects' relevance to the targeted beneficiaries. This also represents a more systemic approach to supporting beneficiaries, where multiple resources and stakeholders are engaged to address constraints.**

The final takeaway from the table above is that none of the program activities respond to the climate-related constraints that smallholder farmers experience. This is likely the case due to MAP's focus on the post-harvest stages of the value chain, combined with limited understanding and/or prioritization of climate change issues during the program design phase in 2008. However, the impact of climate change on smallholder farmer production was noted across the program countries, and is well documented in international literature. The effects of climate change can reduce smallholder farmer productivity, ultimately limiting their opportunities to participate in the post-harvest value chain. **This lends credence to the usefulness of integrating with pre-harvest focused interventions, which may include climate resilience training, and put smallholder farmers in a better position to participate in markets.**

4.1.2.3. Meeting the needs of SMEs

While a minority of projects focused on SME support, it is also important to assess the extent to which the intervention activities were relevant to the needs of the targeted SMEs. The program's intention in supporting SMEs was to build sustainable businesses that can act as off-takers for smallholder farmers.

Following capacity assessments, project partners identified the operational and financial management gaps experienced by the targeted SMEs. Based on these assessments, partners provided BDS to the SMEs. Specific areas of need included, for example:

- Business documentation, including financial procedures and business operations;
- Business management, including formalization of systems and procedures;
- Client database development and management;
- Negotiation and contract management;
- Business planning; and,
- Formalization of businesses with the relevant legal authorities.

¹⁹ The partner noted that the history of war and low literacy levels has reduced trust amongst farmers.

²⁰ Note that this was not the intention of the archetypes, each of which were developed to respond to specific challenges, as described above.

The SMEs engaged as part of the data collection process noted that the support that they received through the project partners was relevant to their business needs. These key informants explained that the support helped them to understand and manage their operational process, which in turn enabled them to better track their finances. One SME noted that the assistance they received helped them to expand into a new market, which is described in Box 2 below.

Box 2: SME market expansion in Tanzania

When one of the supported SMEs was established in 2006, it was a fertilizer company working in the Mbozi district of the Southern Highlands in Tanzania. In 2012, their company saw the opportunity to enter the processing market for maize, as improved inputs were enabling farmers to increase their yields.

However, the SME did not have relevant experience necessary to become a processor. The project partner provided their company with BDS and assisted them in developing a business plan to begin processing. Through this business plan, they were able to access finance to purchase the necessary equipment, including trucks for distribution.

In addition to BDS, the SME received training in handling raw materials, which enabled them to practice improved handling techniques. The SME emphasized that the support they received through the project was pivotal in enabling them to expand their business.

Finally, a number of SMEs noted that the training that the SMEs and smallholder farmers received in understanding their respective positions in the value chain helped them to better understand the other parties' needs and constraints. This improved the relationship between SMEs and smallholder farmers, and supported linkages between the two groups. **MAP's approach of providing capacity building and linkages along the value chain was a relevant approach to developing and enhancing access to markets for smallholder farmers.**

Figure 5: SME processing facility in Mbozi, Tanzania



4.1.2.4. Assumptions underlying the MAP theory of change

In addition to assessing the relevance of the interventions with respect to the beneficiary needs, it is also important to interrogate the extent to which specific MAP activities are relevant based on the local context of the program countries. This section examines specific instances where assumptions underlying the activities did not hold, thereby undermining their relevance in the context of this program.

Market Development

Given the production constraints described in the sections above, one assumption under the Market Development archetype which did not hold, was that farmers would produce sufficient yields to warrant alternative uses of food crops. The smallholder farmers targeted through this project were predominantly producing for consumption first, and selling excess production to industry. On this, one AGRA staff member noted, *“competing between food and industry is a very fine balance...we did not focus on this balance before.”* As a result, the MAP-supported farmers were not able to produce the yields necessary to be competitive, and investment in alternative uses was limited. The MAP team subsequently downscaled emphasis on this objective area.

“Competing between food and industry is a very fine balance...we did not focus on this balance before.”

- AGRA staff

This underscores the need for integrated programming to address a wider ambit of gaps, and is discussed further in the Effectiveness section below. **Ensuring that smallholder farmers have received the pre-harvest**

and production support necessary to increase yields will increase the relevance of this activity to targeted farmers.

Storage and Services

Under Storage and Services, **multiple partners and AGRA staff questioned the relevance of the WRS in Kenya and Ghana.** These key informants noted that in order for the system to work, there needs to be a number of policies and regulations in place to provide an enabling environment for warehouse receipting. Relevant enabling factors include a WRS authority that can license the operators, a clearing mechanism, market driven prices, and a regulatory system that exists as a fall back for contracts, among others.

“We need an enabling policy environment for warehouse receipting to work.”

- AGRA partner

One AGRA staff member noted that while there is a WRS authority in Ghana, in the East African community the authority and system are not yet operational. In both Kenya and Ghana, the regulatory environment was identified as a barrier to successful WRS. On this, one partner in Kenya noted, *“the WRS did not work out so well, for obvious reasons like government intervention and market distortions.”* Updating country strategies to reflect emerging regulatory dynamics and barriers may have assisted the MAP team in identifying these barriers and adapting project interventions in response to these realities.

Challenges with establishing functional warehouse receipting are partly due to the targeted crops. Because AGRA is targeting food crops, which are generally lower value crops and experience government intervention in the value chains, it can be difficult to achieve the throughputs and prices necessary to support the system.

Additionally, WRS tend to be more relevant to commercial farmers or large and well-managed farmer organizations, who are able to provide the volumes necessary for warehouse receipting to be financially viable. One partner in Ghana also noted that many smallholder farmers cannot afford the cost of transport to the warehouses, which further compounds barriers that farmers experience in accessing warehouses.

Importantly, and in response to this challenges, AGRA’s new strategy emphasizes engaging broader ecosystem actors, including government and other national bodies, in program countries to facilitate an enabling environment for warehouse receipting.

Finally, AGRA should emphasize aligning interventions with market dynamics. Activities such as structured trading and regional trade require a “commercially oriented smallholder farmer” because of the volume and consistency dynamics at that level of the market system. Project designs should take this into consideration and be flexible in beneficiary selection i.e. size and commercial orientation of farmers

4.1.3. Partner selection

As per the document review and KIIs, the identification and selection of partners was based on their expertise in the identified intervention area, their performance if they had done previous work with AGRA, as well as their potential reach to farmers. **These are relevant criteria to apply when selecting partners.** Additionally, program donors also specified that AGRA should work with local NGOs in hard to reach areas and build their capacity; while it is important from a sustainability perspective to build local capacity, this requirement also limits the options for potential partners. Many of the final partners identified were NGOs, with considerable experience in working with smallholder farmers.

However, key informants questioned the relevance of certain partners selected. For instance, some partners, while having experience in the targeted intervention area, were located in the capital cities of program countries and are therefore located far away from the targeted locations. This was particularly the case where the partner

did not have local offices, and some beneficiaries noted that this was a challenge as the assistance they received was confined to irregular visits. For instance, this challenge was noted by one CSDI-supported SME in Tanzania. As a result, some partners' ability to reach beneficiaries was restrained by distance from targeted intervention areas. **This challenge lends credence to the consortium approach that was adopted for some interventions** - while the main partner in a consortium may not have a local implementation team, many of the sub-partners in the projects included in the evaluation were local organizations with an on-the-ground footprint in the intervention locations. These local project partners are likely well positioned to support the beneficiaries, and this also helps to build capacity of smaller organizations working in harder to reach areas. The consortium led by Concern Universal was provided as an example in this regard.

Some key informants also questioned the relevance of the types of organizations selected. While the partner NGOs had relevant experience in the intervention area, organizations of this type often implement grant-funded interventions. Therefore, when the grant period is over, the project and NGO presence in the intervention location comes to an end. This is particularly the case for regional and international NGOs. Key informants noted that a more sustainable approach to linking smallholder farmers to markets would have been to increase emphasis on working with government and the private sector, who are more likely to continue working in the location of the intervention. AGRA recognized this during program implementation and began engaging more private sector and government sector partners during the course of program implementation. While one AGRA staff member noted that engaging government can be more time consuming, the benefits of doing so can outweigh the costs, as governments are well positioned to scale and sustain interventions.

Where the intervention aims to sustainably link smallholder farmers to markets, including a wider variety of organizations will enhance the relevance of partner selection.

4.1.4. Consortium approach

A number of more recent interventions funded through MAP were implemented in consortiums, whereby multiple partners combined resources and expertise to implement a holistic intervention. This was done as a precursor to, and then in line with, the shift in AGRA's strategy towards more integrated interventions.

Given the diversity of challenges experienced by beneficiaries, **this approach is appropriate in ensuring that the intervention leverages complementarities to deliver more comprehensive support to beneficiaries.** For instance, CSDI in Tanzania is the lead implementer on the YieldWise project. As part of this intervention, CSDI has primarily focused on engaging broader ecosystem institutions, such as financial services institutions, in an effort to link them to farmers. In contrast, the sub-partners, Rural Urban Development Initiatives (RUDI) and Building Rural Incomes Through Enterprise (BRITEN), have been primarily responsible for delivering training to the smallholder farmers. Together, these partners are able to combine their collective expertise, as CSDI has extensive experience with the public and private sectors whereas RUDI and BRITEN are focused on supporting smallholder farmers. A further example in this regard is provided in Box 3 below. **While the consortium approach can require considerable time and effort to coordinate, it has enabled MAP to design and implement more comprehensive and effective projects.**

Box 3: Strengthening Agricultural Input and Output Markets in Africa (SAIOMA) project consortium

SAIOMA was a three-year project that was implemented as a consortium, led by Agricultural Market Development Trust (AGMARK), in partnership with Cereal Growers Association (CGA) and Co-op Consultancy Insurance Agency (CCIA). The project aimed to address low agricultural productivity, constrained access to inputs and outputs markets, and limited capacity among farmer organizations. SAIOMA also aimed to enhance women and youth leadership in farmer organizations. This project was housed in MAP and integrated with FOSCA and PASS.

As part of this project, AGMARK was responsible for leading agro-dealer development, while CGA led the implementation of smallholder agricultural development and market access. Finally, CCIA was responsible for supporting strengthened governance in farmer-based organizations (FBOs).

Partners in the consortium emphasized the value of working as part of a group to address agricultural development. As a consortium, members are able to leverage shared skills, experience, expertise and synergies to enhance implementation. Based on their experience in effectively implementing this consortium, one partner noted that the partners documented what works well in implementing consortia, as well as which pitfalls should be avoided, to feed into future grant-making decisions.

4.2. EFFICIENCY

The Efficiency criterion “*measures the outputs (qualitative and quantitative) in relation to the inputs. This criterion looks at whether the activities were cost-efficient, and whether the objectives were achieved on time.*”²¹. We begin by presenting the evaluation questions used to guide the assessment of program efficiency. We then provide an assessment of MAP’s **partner selection, grant and budget management** processes, the **MAP team**, and the program **monitoring and reporting** processes. A summary of the key findings is provided below.

The evaluation questions are depicted in Table 6 below, which maps each question to the method used and stakeholder group engaged on this particular topic.

Table 6: Evaluation framework - Efficiency

Evaluation questions	Desktop review	KII: AGRA (HQ)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
Efficiency					
How well was the MAP managed in terms of pipeline development or origination strategy (including support to applicants during the grant application process)?		X	X		
To what extent was there competitive assessment of bids in the selection of the grantees (including governance arrangements, due diligence and application of criteria)?		X	X		
How effectively was the contracting process managed for successful grantees?		X	X	X	
How effective was the management of grants (including reporting and disbursements) and provision of implementation support to grantees?		X	X	X	
How efficient was the structure of the AGRA MAP team, given the spread across countries and variance of project activities?		X	X	X	
Did MAP’s monitoring system accurately capture partner progress and key performance indicators?	X				
How effectively were the MAP monitoring and reporting activities managed?		X	X	X	
What, if any, are areas where improvements are needed in the monitoring and reporting processes?		X	X	X	
How economically and efficiently was spending managed by the AGRA MAP team?	X	X			
How economically and efficiently was spending managed by the grantees?	X	X			
Were outputs delivered on time and within budget?	X	X	X		

Efficiency: Summary of key findings

- AGRA’s selection of partners for MAP has been efficient given the program strategy as well as changes to AGRA’s strategy over the course of the program. Partners were selected either on the basis of a semi-competitive bidding

²¹ DAC Criteria, OECD website: <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>.

process or through direct solicitation based on previous experiences with AGRA. This approach balanced the need for competition with the need for suitably qualified candidates and the potential for enhanced impact through repeat interactions.

- Grant and budget management was conducted efficiently and was adaptive to the needs of the partners when challenges arose. Overall, funds were generally well-managed by partners and were used efficiently to produce the outputs reported.
- The partners' engagements and experiences with the MAP team were mixed. Certain partners reported a lack of clarity about who their point person was within the AGRA team and MAP staff turnover meant that there was a lack of continuity when it came to AGRA's input into and knowledge of certain projects, which was disruptive to implementation. Furthermore, communication within the AGRA teams responsible for integrated projects appeared to be somewhat lacking due to the siloed nature of the organization, with partners reporting that they would receive multiple requests for the same project reports from different AGRA staff members. This is because program officers would be drawn from several different programs and would not liaise with each other on a regular basis.
- The performance of MAP with respect to monitoring and reporting was mixed. The in-person monitoring support provided by the MAP program officers was found to be sufficient and the training on monitoring and financial reporting was found to be useful. However, the lack of formally tracked monitoring data is concerning and suggests that this function could have been done better by both partners and AGRA alike. Furthermore, the monitoring and evaluation budget component of the grants was insufficient for a number of partners, who reported that they had to subsidize this function from other parts of their businesses.
- The three-year project timeframe was too short for partners to effectively and efficiently implement or track progress, and did not allow enough time to get a sense of the early indications of sustained impact.

4.2.1. Partner selection

AGRA's selection of partners for MAP has been efficient given the program strategy as well as changes to AGRA's strategy over the course of the program. According to AGRA team members, partners were selected based on how they aligned to the MAP strategy and their capacity to deliver on the expectations of the program. The pipeline was managed by the MAP program officers based in Nairobi, who would develop the broad ideas for each intervention, identify possible partners in each of the program countries, and then issue a call for concept notes from the identified candidates. On the direct solicitation of concept notes, one AGRA staff member reported, "since sometimes there isn't much choice in terms of qualified applicants, one is forced to headhunt."

In identifying suitable candidates for each new intervention, the program officers would consider the alignment between the candidates' capabilities and the MAP strategy, and if they had received funding from AGRA before, they would consider how they had performed within that previous funding round. In instances where the partners had performed well, AGRA displayed a preference for working with the same organizations to extend or scale an existing intervention. This was the case for a number of the partners consulted for the evaluation including

"The second phase took a lot of lessons learned from the previous project"

- *AGRA partner*

Concern Universal (Ghana), EAGC (Kenya), ADEM (Mozambique), and CSDI (Tanzania). **This was particularly effective as it meant that there would be a shorter ramp up period in subsequent interventions to start implementing, and partners were able to build on lessons learned from previous iterations of the program.**

Once identified candidates had submitted their concept notes to AGRA, the program officers would select the best ones to take forward into full proposal stage, during which the program officers would work closely with the candidates to co-design the intervention. A number of partners reported that this was a positive experience and received a great deal of support from the AGRA team during this phase, where there would be a lot of back and forth on the intervention design. The final proposals would then be submitted to the AGRA grants committee for approval, and once approved, this would be taken through to contracting. **While this was not necessarily a**

pure competitive bidding process, the AGRA team balanced the need for competition with the need for suitably qualified candidates and the potential for enhanced impact through repeat interactions.

One area of criticism is the fact that projects were initially conceptualized by the program officers based in Nairobi, and not by people with deep local knowledge and expertise in each country. As mentioned above, these were developed on the basis of identified gaps in each country (documented in the MAP business plan); however, there were a few instances where partners reported that certain design features of the interventions were included or excluded because AGRA thought it necessary, as opposed to it being particularly relevant to the local context. Given the recent establishment of country offices under the new AGRA strategy, this approach could change if the country offices take a bigger role in the proposal development stage.

4.2.2. Grant and budget management

In general, partners consulted felt that AGRA's grant management processes functioned smoothly and that they did not have many issues with how the contracting process or the disbursements were managed.

“The flow of funds worked well”

- AGRA partner

According to AGRA, the contracting duration would depend on the number of iterations and corrections that would have to be made during design, but this was largely regarded by partners as a smooth and well-communicated process. The same can be said for the disbursements which were largely regarded as well-managed. It was only the Burkina Faso partners that reported to have experienced delays in their disbursements and issues with forward cash management. However, despite this, the partners noted that in general, they had a good relationship with AGRA and appreciated the team's support and flexibility.

AGRA disbursed funds either annually or bi-annually, and this decision was made based on the financial management capacity of the partners, which was determined during the organizational capacity assessment (OCA) conducted during proposal development. If awarded the grants, 'stronger' partners received annual disbursements, while 'weaker' partners received disbursements every six months. It was noted by the MAP partners that the disbursement periods worked well. Partners compared this to quarterly disbursements, which are the preference of other donors, and it was noted that **the way AGRA disburses funds is less disruptive to project implementation**. This is because it allows sufficient time for the partners to plan and then mobilize project activities, without disruption or delays caused by shortages of available funds.

Partners also reported that **the AGRA team was flexible with regard to budget adjustments**. According to AGRA, partners were required to seek approval for budget adjustments over 10%. If the adjustments were below 10%, the partners had the freedom to make these adjustments on their own; however, they were still required to inform AGRA of these adjustments. **This type of flexibility gave partners the freedom to adjust their plans based on particular implementation issues experienced on the ground, and to make the most efficient use of funds**. An example of these types of budget adjustments based on realities experienced on the ground is provided in Box 4 below.

Box 4: Example of budget adjustments in Mozambique

TechnoServe in Mozambique implemented a project in the soya value chain to support small commercial farmers in accessing threshing machinery to improve their post-harvest management and processing of the soya. The farmers were required to pay 10% of the cost upfront and the project then facilitated access to loans for the farmers to cover a further 40% of the cost, payable over three years. The remaining 50% of the cost of the threshers was subsidized by TechnoServe through the MAP grant.

The threshing machines were ordered in two batches, based on the number of farmers who were able to make the 10% upfront payment. While the first batch of threshers worked very well, the second batch, which were procured at cheaper cost, were delivered with faulty motors. Luckily, TechnoServe was able to replace the motors on the guarantee, and given

that the second batch of threshers were cheaper, TechnoServe ended up with excess funds in their equipment budget line.

With the approval of AGRA, TechnoServe used these excess funds to purchase some additional equipment for a farmer organization they were also supporting under the MAP grant, to produce soy derivatives such as soya flour, soya milk, soya bread, and soya cakes. The excess funds were also used to purchase spare parts as well as accessories, such as lubricant and tarpaulins, that are necessary for the efficient and sustainable use of the threshers, especially while the farmers are still facing the financial burden of repaying their loans.

This type of flexibility was also important as the budget disbursements were based on three-year contracts, and the AGRA team reported that many of the partners underspent in their first years. This is because this first year was often spent building up the teams and sensitizing the beneficiaries. Partners would therefore require funds to be shifted forward into years 2 and 3 when the bulk of the implementation was taking place. Furthermore, there were a few partners that requested no-cost extensions beyond the three-year period to complete their intervention activities and close out appropriately. Of the specific projects under evaluation, no-cost extensions were granted to TechnoServe, SNV and CSDI. **This suggests that the three-year time frame for these types of interventions is perhaps too short, and AGRA should consider extending these timeframes in order to better reflect the realities of project implementation.**²² This point was also raised in reference to monitoring and reporting, discussed below.

Finally, from a partner efficiency perspective, the overall impression of the evaluation team is that **funds were generally well-managed and used efficiently to produce the outputs reported – inefficient spending did not emerge as a concern** from the fieldwork conducted, and only one partner reported to have underspent.²³ As mentioned above, efficiency of spending was also facilitated by the flexible budget management procedures from AGRA, which allowed partners to shift funds from one line item to another on a needs basis. However, it should be noted that due to inconsistent reporting by different partners and a lack of benchmarking data, it is difficult for the evaluation team to quantitatively assess this and compare the cost effectiveness of different interventions, which vary quite substantially in terms of implementation models and geographies. To monitor this going forward, AGRA could consider co-developing a framework for assessing cost-effectiveness with partners, and agree up front on what constitutes satisfactory spending relative to the agreed outputs.

4.2.3. MAP team

Feedback from the partners on their engagements and experiences with the MAP team were mixed, with some describing the team as supportive, communicative and engaged, and others reporting a great deal of staff turnover and poor communication, which affected their relationship with AGRA.

On the issue of poor communication, a few of the partners reported that due to the turnover within the MAP team, both as a result of people moving away from and within AGRA, but also, sadly, due to the passing of one of the team members, **there was at times a lack of clarity about who the right person within the AGRA team was to contact**. While, of course, some of this turnover could not be helped, this was disruptive to the partners and meant that **there was a lack of continuity when it came to AGRA's input into and knowledge of the projects**. One partner went so far as to say that they were at times copying seven people in every email to AGRA as they were not sure who their point of contact should be.

Further to the above, a few partners noted that the **communication within the AGRA MAP team appeared to be somewhat lacking**. Partners reported that they would send reports to one person, which it seemed would

²² The evaluation team acknowledges that these time frames have been linked to funding cycles and standard industry practices; hence it might be the case that these practices need to be re-considered across the sector and not just by AGRA.

²³ The reason provided for this was that the grant period was only a year long and they did not have enough time to spend the full grant amount.

not be circulated internally as they would then get requests for the same report from another person. This was a particular challenge under the more integrated projects, at a time when AGRA was operating in a more siloed manner. According to AGRA, this has already been noted as a lesson emerging from MAP and, under the new strategy, a point person will be allocated for each grant who will be responsible for coordinating communication with the partners.

Finally, it was reported that while the team based in Nairobi was skilled and supportive to the partners, they were also quite stretched doing proposal development as well as monitoring visits on an ongoing basis, and **not having people based on the ground was a challenge to both the AGRA team and the partners.** According to one partner in Tanzania, the establishment of a country office in Tanzania was helpful, as there was more direct support on the ground, and the partners in Mozambique also reported to have appreciated the support of the country office.

AGRA has learnt from these experiences and has included country offices as a part of the new strategy. This has the potential to lead to improved programming, since country offices can provide the necessary local knowledge in the development of new programs, help identify partners to work with, and also assist the Nairobi-based program managers with monitoring visits and day-to-day project management. This would contribute to improved efficiency of operations; however, this would depend on the capacity of the country teams to fulfil all of these tasks and the extent to which they are included by the program directors in the proposal development stage.

4.2.4. Monitoring and reporting

The performance of MAP with respect to monitoring and reporting was mixed. Where the program did well was to ensure that all partners were trained on the requirements of monitoring and financial reporting at the beginning of the grants, and partners reported that these trainings were useful to them. However, while the partners all reported receiving training on m

onitoring and reporting, it was noted by the evaluation team that the narrative reports submitted by the partners did not follow a standard template and many of the partners were not required to complete an Indicator Performance Tracking Table (IPTT) as this was only implemented as part of AGRA processes towards the end of MAP. **The lack of formally tracked monitoring data is concerning and suggests that this function could have been done better by both partners and AGRA alike.**

Furthermore, a number of the partners, across multiple countries, reported that they found **the monitoring and evaluation (M&E) budget component of the grants to be insufficient and had to subsidize this function from other parts of their businesses.** AGRA provided guidance to the partners that the M&E budget should be at least 3% of the project's costs (excluding equipment and indirect costs). While this guidance appears to only stipulate a minimum, it might have been the case that partners only budgeted for the proposed 3% and subsequently discovered during implementation that this was insufficient.

“It wasn’t armchair monitoring of us.”

- AGRA partner

Aside from the available resources, the **partners generally found the monitoring support provided by the MAP program officers to be sufficient.**

The program officers would conduct regular monitoring visits where they would visit the areas the partners were working in and validate the information provided by partners in their reports. A particular example of how these monitoring visits

fed back into implementation was provided by ADRA in Mozambique, who reported that the initial targets at the beginning the SAFOZA project were too ambitious, and after the AGRA team conducted the first monitoring visit, this target was revised downward based on more realistic assumptions of program participation. A number of the partners also reported attending partner annual meetings where AGRA brought their partners together to share what they were doing with other partners, along with particular successes and challenges. Partners

reported that these sessions were valuable and gave them the opportunities to learn from other similar organizations and projects.

A final issue raised by many of the partners consulted for this evaluation, and one that links back to the above-mentioned ability of the partners to implement effectively within the three-year time frame, is that **three years is generally considered too short a period of time to effectively track progress and realize any tangible changes**. This is because agricultural projects, particularly those operating in grain value chains, are highly influenced by, and dependent on, external factors experienced during that particular period of time. Should there be a drought or a flood, or if there are major challenges experienced during implementation that cause delays, there is a high likelihood that the program will miss the agricultural season and have to wait an entire year before any implementation activities can take place, let alone monitoring activities. Furthermore, given that first year of the projects is often spent mobilizing teams and sensitizing beneficiaries, many of the partners reported that, even in the absence of any potential external factors influencing rollout, they only had a maximum of two harvests to track progress. This puts pressure on the partners to meet targets and may lead to perverse incentives where rollout is rushed and not implemented effectively, in order to ensure that certain targets are met on time. **AGRA should consider increasing the length of their grants to take place over a five-year period, instead of three years, to give partners enough time to both implement effectively, track progress and realize the outcomes of their interventions**. This will also help AGRA better track the impact of their programs and disseminate this knowledge.

“3-year programs will never have an impact... you barely scratch the surface.”

- AGRA partner

4.3. EFFECTIVENESS

The Effectiveness criterion provides, “a measure of the extent to which an aid activity attains its objectives.”²⁴ In this section, we begin by presenting the evaluation questions used to guide the assessment of program effectiveness. The section then reviews MAP’s Achievement of objectives, which includes progress against set targets. This section also presents Successes and challenges in meeting objectives, as well as the effectiveness of Gender mainstreaming, Integration, and Partner support. A summary of key findings is provided below.

The evaluation questions are depicted in Table 7 below, which maps each question to the method used and stakeholder group engaged on this particular topic.

Table 7: Evaluation framework - Effectiveness

Evaluation questions	Desktop review	KII: AGRA (HQ)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
Effectiveness					
To what extent did the MAP theory of change hold? i.e. How effectively has the program identified and addressed challenges to market access? Did the interventions achieve expected outputs, outcomes and impacts?	X	X		X	
To what extent have MAP partners' interventions met the needs of the intended target population?		X		X	X
What factors influenced the achievement of the MAP's objectives?		X		X	
What were the key successes of the MAP? What are the particular success drivers of MAP partners?	X	X		X	X

²⁴ DAC Criteria, OECD website: <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>.

Evaluation questions	Desktop review	KII: AGRA (HQ)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
What were the identified challenges? What challenges require further attention in AGRA's future Markets work?	X	X		X	X
How effective was the particular mechanism employed by AGRA to support implementing partners (i.e. grants) and are there alternative mechanisms that could have been more effective?		X		X	
To what extent has MAP successfully reached female beneficiaries?	X	X		X	X
What gender-specific barriers or obstacles might have prevented either men or women from participating or benefiting from the program?				X	X
Have the outcomes of the program been influenced by external factors (political, climate) and if so how?		X		X	X
If external events have arisen or circumstances changed, what different effects have they had on men and women?		X		X	X
To what extent was the integration of MAP with other AGRA programs successful? What lessons can be taken out to inform AGRA's new integrated approach		X		X	
To what extent does MAP share knowledge and lessons learned from its portfolio with other AGRA program teams?		X	X		
To what extent did AGRA make use of MAP's learnings? What improvements in the sharing process are needed, if any?		X	X		
To what extent would the partners have been able to implement their interventions without the support of AGRA?				X	

Effectiveness: Summary of key findings

- Where possible, achievement against targets were assessed based on the data available. However, due to limitations in the program data provided, the evaluation team was not able to quantitatively assess achievement against targets for most of MAP's objectives. As a result, the evaluation team has provided a predominantly qualitative assessment of factors contributing to, or detracting from, MAP's achievement of objectives.
- Many of the factors influencing the achievement of objectives were informed by the reality of the targeted beneficiaries. As discussed in the Relevance section above, many of the smallholder farmers supported through the program were subsistence-based farmers, selling their production only when surplus was available. The effect of this reality informed achievement of objectives in a number of ways; for instance, limited production inhibited beneficiaries' ability to participate in structured trading systems and also limited their competitiveness in selling to industry for alternative uses of food crops. These factors undermined the achievement of objectives in reducing transaction costs and increasing demand for food staples through alternative uses.
- Working in consortium was both a success driver and a challenge; for those partners who identified and managed the key factors that drive successful partnerships, working in consortium was beneficial. However, some partners explained that working in consortium affected their implementation timelines and achievement of objectives.
- Restrictive timelines were the second internal challenge informing the achievement of objectives, as project partners noted insufficient timelines for effectively and sustainably enhancing smallholder farmers' access to markets.
- Considering external factors informing objectives, these included government intervention in agriculture markets which affected the price of food staples; climate shocks which limited smallholder farmers' production; limited access finance which inhibited beneficiaries' access to mechanization and equipment; as well as donor crowding in intervention areas which undermined beneficiaries' willingness to pay for goods and services. While these external factors are beyond the control of AGRA or partners, there is enabling environment work which can be done to mitigate these risks.
- In terms of gender mainstreaming, the evaluation team found limited effectiveness in integrating gender into the program's implementation. There is limited evidence to indicate that the specific needs of women beneficiaries were properly scoped and accounted for, and few partners were required to report on gender reach targets or gender-

disaggregated data. While two partners were promised a gender specialist role for their respective projects, this support did not materialize.

- MAP's evolving emphasis on integration during program implementation enhanced the program's effectiveness in reaching objectives. Partners who were implementing integrated projects noted the power of integrated programming in terms of being responsive to beneficiary needs. Increasing integration also supported knowledge sharing within AGRA as program teams became less siloed.
- Finally, while partners noted varying levels of support from AGRA in terms of capacity building, all partners noted that the support received was helpful in assisting them to successfully implement their project and navigate grant agreements.

4.3.1. Achievement of objectives

MAP set out to reduce transaction costs; increase value addition in food usage; increase demand for food staples through alternative uses; and promote an enabling environment for local and regional trade of food staples. This section examines MAP's achievement against these objectives, including an overview of progress against targets.

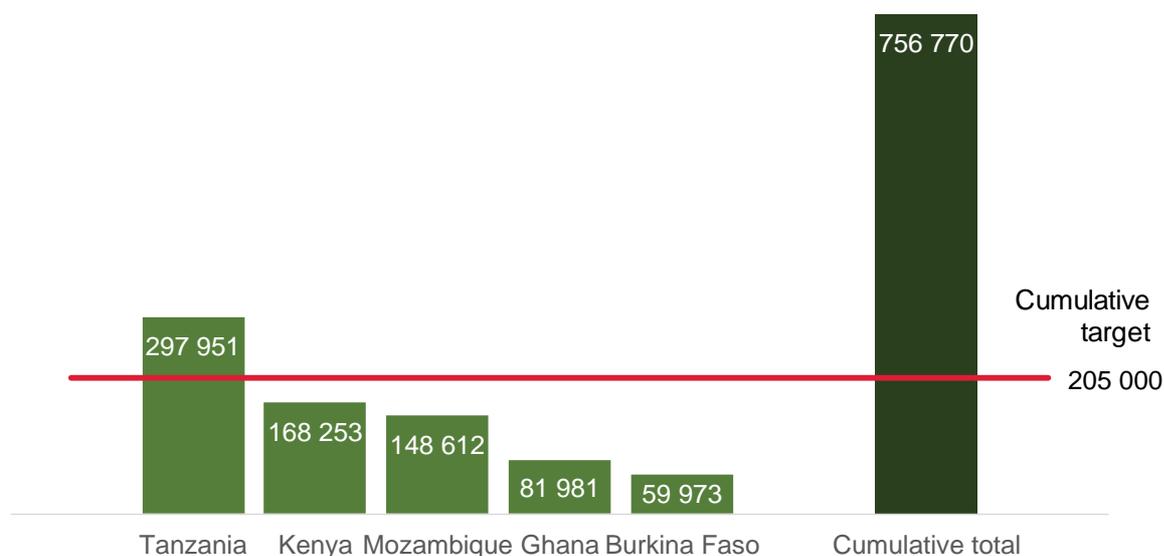
4.3.1.1. Reduce transaction costs

MAP aimed to reduce transaction costs through a number of approaches, including organizing farmers into groups; training farmers on structured trade systems; providing market information; and, building SME capacity. The expected outcome of these activities was that the spread of prices between the farm-gate and the market would narrow by 25%.

The evaluation is not able to determine whether MAP narrowed the spread of prices between the farm-gate and the market by 25%, as the program did not collect baseline data for this figure. However, based on the qualitative and quantitative data on structured trading, market information and SME capacity building, **these is evidence to indicate that the program has contributed to reduced transaction costs for smallholder farmers**. This is investigated further below.

Farmer group organization and training in structured trade systems

As part of the objective of reducing transaction costs, MAP intended to train farmers in structured trading. Figure 6 below indicates the number of farmers trained by country and the cumulative total achieved across the evaluation countries, in comparison to the cumulative target during the funding period.

Figure 6: Number of farmers trained in post-harvest handling, quality, storage, and structured trading²⁵

AGRA, *Markets Data*, 2017.

As shown in the figure above, Tanzania exceeded the total cumulative training target for all evaluation countries over the funding period. **Together, the countries achieved a cumulative total nearly four times larger than the cumulative target for the grant period.** While this appears to be a positive result at first glance, a number of factors should be considered in assessing this result. Firstly, the milestones and targets for training farmers were originally disaggregated by training in post-harvest handling (PHH) and training in structured trading. However, the actual reported data combined these two themes into one indicator: number of farmers trained in *PHH, quality, storage, and structured trading*. Due to this approach to measurement, the evaluation team were not able to disaggregate training by structured trading and PHH. While the milestone for training in PHH specified a target of 200 000 farmers, the target for training in structured trading was much less, at 5 000. Assuming these targets were appropriately set, this indicates that the program anticipated 40 times greater reach to farmers with training in PHH in comparison to structured trading. Therefore, it is likely that the number of farmers trained in structured trading accounts for a comparatively smaller share of the total training result achieved, although the evaluation team is not able to reach an exact conclusion in this regard due to the indicator definition and measurement.

A second important consideration in assessing this result is related to the appropriateness of targets. The amount by which MAP exceeded cumulative training targets may indicate that assumptions around potential reach were incorrect at the outset, and that these assumptions need to be reconsidered. If, however, the assumptions and corresponding targets are reasonable, there is also the possibility that partners may have double counted beneficiaries trained if they were reporting on these targets separately, but the training was delivered to the same beneficiaries. This may be the case given the inconsistencies in data collection earlier in the program, prior to AGRA updating its M&E processes, as well as the fact that most partners trained on PHH, *in addition to* the other thematic areas of training, to deliver a more holistic training package.

Finally, due to the lack of country-level targets, it is not possible to *relatively* compare each country's contribution to the results achieved. For instance, while Tanzania might have made the largest contribution to the target on an absolute basis, having a country-level target against which to assess its performance would enable the

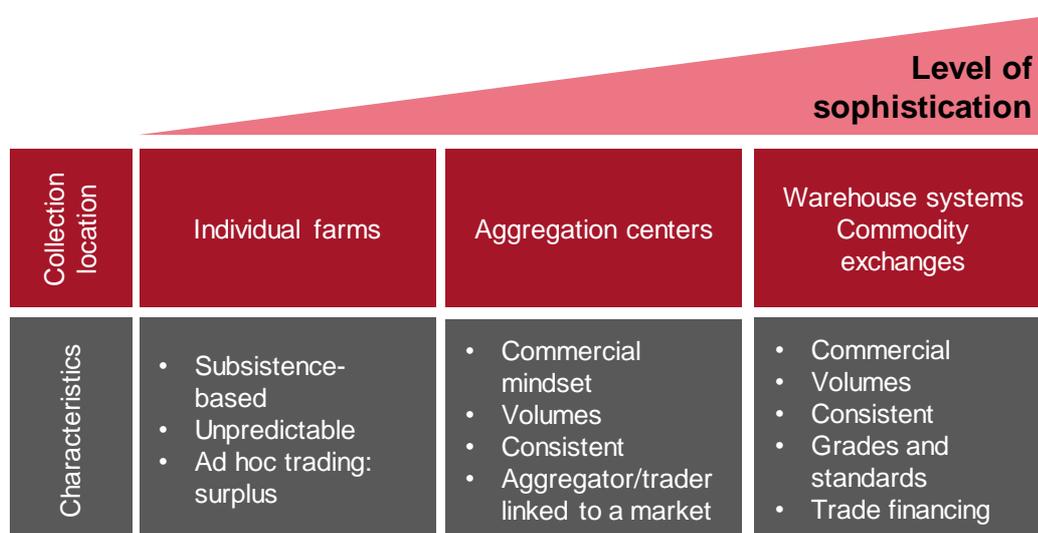
²⁵ Cumulative target taken from the *AGRA Market Access program proposal to the Bill and Melinda Gates Foundation February 2010*. The cumulative target applies only to the BMGF funded countries and was set for specific milestones in the proposal. Note that Burkina Faso replaced Mali as a funded country.

AGRA team to better understand whether the intervention in Tanzania is successfully reaching the intended number of beneficiaries. If progress falls short of the intended target, the relevant team members are then better positioned to identify and address key factors undermining achievement of targets in the country.

While these figures communicate the extent to which the program has reached beneficiaries to develop their *understanding* of structured trading systems, it does not necessarily communicate the extent to which the program has been successful in encouraging the *use* of these systems. By the end of the program, 366 665 MT were aggregated and sold by farmers, amounting to approximately USD 132 million. However, due to the absence of a baseline for these figures, the evaluation team is not able to conclude on whether this represents *increased use* of structured training.

To further understand the program’s experiences in encouraging the use of structured trading systems, it is helpful to consider a simplified spectrum of structured trade systems. This is provided in Figure 7 below.

Figure 7: Spectrum of structured trade systems



The figure demonstrates a simplified spectrum of structured trading: buying at an individual farm is non-structured and the model becomes increasingly sophisticated as it approaches WRSs and commodity exchanges. Key characteristics of each stage of development are captured in the grey boxes at the bottom.

The majority of beneficiaries targeted through MAP are subsistence-based farmers. Accordingly, the yields achieved by these farmers are unpredictable in quantity and quality, and trading occurs on an ad hoc basis, when surplus is available.

To address these gaps, MAP interventions aimed to encourage beneficiaries to see farming as a business. MAP facilitated farmer organization, trained farmers in GAPs and postharvest handling techniques to improve productivity and decrease losses, facilitated produce aggregation and collective marketing, and linked these organizations to buyers. This support aimed to graduate individual smallholder farmers to the aggregation center stage of the spectrum. However, as discussed in the Intervention design section above, many farmers struggle to meet the volumes necessary to aggregate at the level required by buyers due to productivity challenges. Even amongst those farmers who do have surplus, aggregation can be a challenge due to transport costs to the aggregation center. **Thus, coordinating support for farmers with higher productivity, either by targeting farmers who have already been supported through AGRA’s production-focused programs, or plugging into other development partners’ production training efforts, would have increased the program’s effectiveness in meeting the objective of reducing transaction costs.** This would have helped to ensure that the farmers supported to participate in structured trading are able to produce the necessary surplus to do so.

A number of challenges also undermine the effectiveness of the program at the warehouse receipt and commodity exchange level. Some of these challenges were discussed in the Intervention design section above, such as the policy and regulatory environment necessary to uphold these systems.

In Ghana, which has experienced some success with the WRS, challenges still remain. One certified warehouse engaged as part of the evaluation noted that while they aim to collect from local smallholder farmers and aggregation centers, few are able to provide sufficient volumes for the warehouse. Additionally, many farmers fall short of the quality requirements, thereby further limiting throughput at the warehouse, as well as damaging the warehouse's relationship with local farmers.

While the Ghana Grains Council (GGC) supported community warehouses as part of their intervention, these warehouses have not yet attained the quality levels necessary for certification. As structured trading systems are underpinned by standards and grades, because stakeholders must be assured of the value of commodities stored in the warehouses, these community warehouses are also unable to attain trade financing through financial institutions.

Finally, to better understand the extent to which MAP effectively influenced structured trading in each of the stages outlined above, a number of data points should be considered. While the program tracked the volume of produce aggregated and sold by farmers, it is difficult to meaningfully compare these figures in the absence of an initial baseline on volumes sold informally, through aggregation, and through structured trading. These indicators should then be tracked over the lifetime of the program. Additionally, meaningful comparison of these figures is limited by the lack of targets for this indicator.

The effectiveness of this area of intervention is thus undermined by a number of internal and external factors. **While the program successfully encouraged the use of aggregation centers, MAP's effectiveness in supporting the use of warehouse receipting and commodity exchanges was limited by the stage of development of the targeted beneficiaries, ultimately undermining its contribution to reduced transaction costs.** AGRA should consider targeting future efforts at individual farms and aggregation centers to ensure that interventions are relevant and effective, based on the country context and beneficiary needs.

Market information

MAP intended to support the development of five market information systems. According to project documents, MAP achieved this objective, with five market information systems developed over the program grant period. According to program data, there were 793 385 short message service (SMS) hits in Kenya alone.²⁶ Despite these advancements, **many of the farmers engaged across program countries noted that they do not have access to necessary information**, such as the prices of inputs and crops. This may be due to a technology gap; for instance, some beneficiaries engaged in Ghana noted that they often struggle to access the mFarms platforms due to connectivity issues in rural areas. In Tanzania, one key informant expressed that a more effective way of providing market information to rural farmers is through a real time market information board at local markets to ensure that farmers, traders, and processors have access to and are referencing the same market information when conducting business at local markets. The key informant provided the market information board at Tunduma market as an example in this regard. As rural farmers may not have cell phones or connectivity to access market information via SMS or messaging platforms, this information source ensures that individuals are still able to access reliable market information.

In the absence of reliable market information, beneficiaries are forced to accept the prices that buyers are willing to offer. **While the program supported access to market information, these efforts have not been sustained and access to market information remains an important barrier for smallholder farmers.**

²⁶ No data were provided for other program countries.

SME capacity building

While milestone five of MAP is concerned with the number of farmers, traders and SMEs trained in business development services, there is no corresponding indicator to measure this result. As a result, the evaluation team is unable to quantitatively assess the program's effectiveness in achieving this target.

Despite the constraints related to quantitative data, the Relevance section above explained that the SMEs engaged as part of this evaluation were positive about the training they received through the program. According to these key informants, training helped them to improve their overall management and operations.

However, AGRA staff noted a couple of assumptions which did not hold, and undermined the achievement of objectives in this area. Firstly, MAP aimed to reduce transaction costs by vertically linking smallholder farmers and buyers. While facilitating linkages is important in this regard, a number of AGRA staff and partners noted that trust between different value chain actors was a missing element in some of these linkages. Limited trust was in large part related to questions over smallholder farmers' ability to meet the consistency in quality and volumes required by the buyers. Due to productivity challenges and weather conditions, farmers may not always be able to meet the needs of buyers, thereby giving buyers less certainty in the produce supplied by farmers. As a result, this can increase transaction costs related to negotiation and force buyers to identify alternative suppliers of raw inputs. Key informants in Burkina Faso emphasized trust as a key element of forming sustainable partnerships between value chain actors.

Additionally, AGRA expected that capacity building would enable SMEs to sustainably improve operations and financial performance, with the opportunity to act as long-term market linkages and service providers for farmers. Local SMEs are important because, in rural areas, they are the closest potential business linkage for smallholder farmers. However, in some cases this assumption did not hold. On this, one staff member noted, *"The assumption was that as a baby graduates from milk, SMEs will do the same. But SMEs don't graduate from free technical assistance to paid technical assistance...If you help an SME to move from USD 100 000 in turnover to USD 3 million turnover in investment, [you think] they would naturally graduate to commercial sources of funding. This is not necessarily true."* As a result of this, AGRA and project partners noted that some of the SMEs supported were not able to improve performance and increase self-sufficiency to act as a sustainable off-taker or service provider for smallholder farmers. During the Mid-term Evaluation of MAP, limited absorptive capacity of SMEs was also highlighted as an issue, and it is clear that SMEs require further direct support to become sustainable.

While SME capacity building has the potential to reduce transaction costs by supporting SMEs to become sustainable off-takers for smallholder farmers, the program's effectiveness in supporting this objective was in some cases limited by the SMEs targeted and their capacity to become self-sustaining. Given the importance of local markets in sustainably supporting smallholder farmers, it is important to focus on developing SMEs' capacity to self-sustain to enable these businesses to maintain activities beyond the life of the program.

4.3.1.2. Increase value addition in food usage

MAP's second objective aimed to increase value addition in food usage through training on post-harvest handling; capacity building in value addition; promoting increased storage capacity; and, promoting food processing. In doing so, this objective aimed to result in a 30% increase in the value of staple foods processed.

While the absence of relevant baseline data limits the evaluation's ability to conclude as to whether MAP resulted in a 30% increase in the value of staple foods processed, we review qualitative and quantitative data related to processing and value addition and storage capacity to assess achievement of this objective. We find mixed evidence for the program's contribution to increased value addition in food usage; while a substantive number of farmers have been trained in this area, farmers reported constraints in applying what they learned

about value addition. On the other hand, however, the program successfully increased availability of storage facilities for smallholder farmers. This is discussed further below.

Processing and value addition

As shown in Figure 6 above, a total of 756 770 farmers were trained in post-harvest handling, quality, storage, and structured trading. Post-harvest handling may include types of value addition, for example by drying, cleaning, or sorting produce. Therefore, the smallholder farmers engaged have been trained in methods of processing and value addition.

However, qualitative data indicate that opportunities for value addition in food usage have met varying levels of success in each of the countries. For instance, smallholder farmers in Kenya noted that learning about processing and value addition has been very beneficial to them as it has enabled them to access new markets. These farmers explained that when the price of maize is low, they process their production to make de-husked maize, which they have been able to sell across the country. A further example in this regard is provided in Box 5 below. However, one partner in Kenya noted that, unless the equipment is provided to the smallholder farmers, it can be difficult for the targeted beneficiaries to implement lessons around processing and value addition (recognizing that value addition is not appropriate for all farmers). This is because of their limited access to finance, which inhibits their ability to purchase the necessary equipment themselves. Similarly, beneficiaries in Ghana noted that when the price of maize is low, they could process the maize for value addition; however, because of limited access to finance, and high interest rates on the finance that is available, they are not able to access this opportunity.

While finance is a challenge in terms of enabling farmers to acquire their own processing equipment, some local SMEs in countries such as Ghana and Kenya are allowing local farmers to access processing equipment for a fee. While this is a step in the right direction in terms of allowing farmers to add value to their production, this is still a challenge in many cases as farmers need to be able to transport their produce to the company facilities and pay the fee to use the equipment.

Box 5: TechnoServe supports women commercial farmers in Mozambique

In Mozambique, TechnoServe implemented a project in which they facilitated access to finance for women commercial farmers to acquire threshing equipment. The project experienced some challenges in procuring the threshing machines – these are documented in detail in Appendix 1: Partner profiles. However, in spite of these challenges, one beneficiary engaged noted that the threshing equipment has helped her as well as others in her community. Prior to acquiring the equipment, the farmers had to thresh produce by hand. Having the threshing equipment has enabled this beneficiary to reduce the time spent threshing, thereby enabling her to increase production.

Therefore, while the machines are useful at a local level, the difficulties in accessing new machines and parts indicates that this is a challenge to sustain.

Also as part of this project, TechnoServe is supporting the promotion of increased production and marketing of nutritious soy-based food products through targeted technical assistance and market linkages. To achieve this, TechnoServe have included a farmer organization strengthening component, in which members have been taught how to make soy derivatives. However, this intervention is still in early stages and we are unable to assess the extent to which it has been successful yet. Furthermore, at this stage of capacity development the farmers are also limited to local markets to sell the soy derivatives.

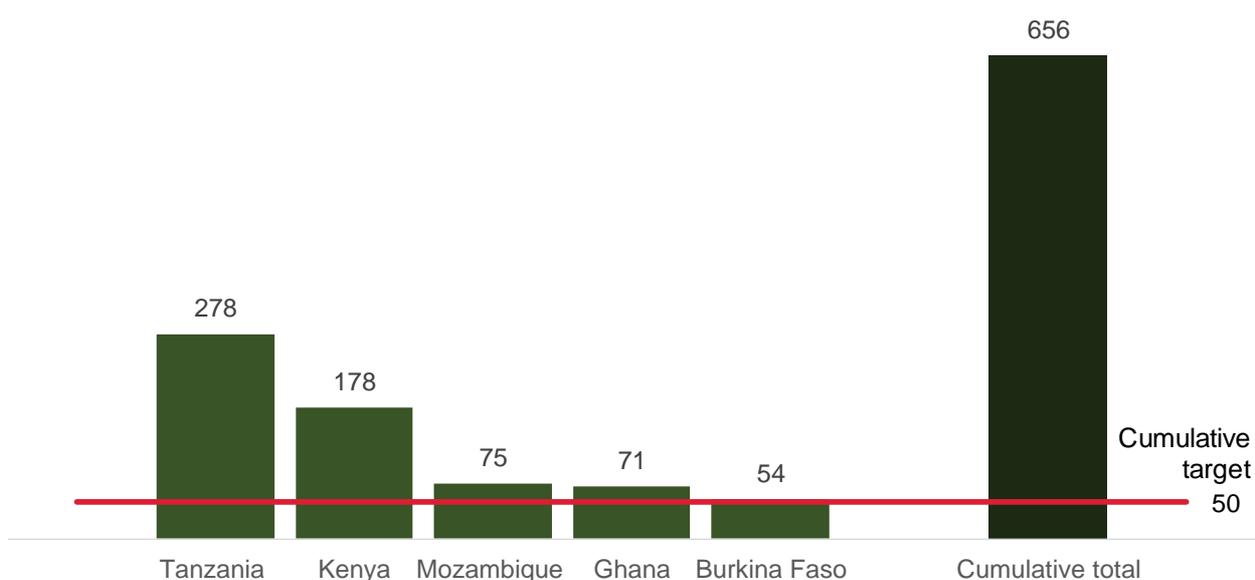
In contrast, beneficiaries in Tanzania noted that they recognize the usefulness of value addition, and learned to process maize to create flour. However, because they have limited access to markets, they primarily sell their production at the local market. At the local market, however, customers do not purchase maize flour because most people in their community make their own.

While beneficiaries recognize the benefits of processing and value addition, they continue to experience barriers such as access to finance which prevent them from leveraging opportunities to increase incomes through value addition.

Increasing storage capacity

One of MAP's objectives was to increase storage capacity for smallholder farmers. To support this objective, MAP's first project milestone aimed to establish 50 aggregation centers for smallholder farmers. Figure 8 below indicates the number of aggregation centers supported/identified by AGRA by country, as well as a cumulative total for the BMGF-funded countries between 2010 and 2017.

Figure 8: Number of aggregation centers supported/identified by AGRA²⁷



AGRA, *Markets Data*, 2017.

As is indicated in the figure above, all five of the evaluation countries *exceeded the cumulative target for all of the countries over the funding period*. This is likely driven by nuances in the definition and measurement of this indicator. Whereas the milestone and corresponding target specifies the number of aggregation centers *established*, the indicator and method of measurement is concerned with the number of aggregation centers *identified and supported*. It is less time-and cost-intensive to identify and support pre-existing aggregation centers than to establish new ones, which likely accounts for the overachievement of results indicated above. Therefore, the number of new aggregation centers established during MAP is captured with those that were supported. As previously described in *Section 4.3.1.1 Reduce transaction costs* above, it is not possible to relatively assess each country's achievement for this result, as no country-level targets were set.

²⁷ Cumulative target taken from the *AGRA Market Access program proposal to the Bill and Melinda Gates Foundation February 2010*. The cumulative target applies only to the BMGF funded countries and was set for specific milestones in the proposal. Note that Burkina Faso replaced Mali as a funded country.

Despite these measurement gaps, **many of the smallholder farmers engaged noted the importance of access to storage capacity, which many of them gained through the program.** Prior to the MAP interventions, many beneficiaries did not have adequate storage facilities, so they would either have to sell their excess yield immediately post-harvest and take whatever price was offered to them, or their produce would spoil due to inadequate storage capacity. Access to storage facilities and equipment such as hermetic bags, weighing scales, and moisture meters, as well as improved knowledge around safe storage of produce at home, has thus enabled these farmers to keep their produce over longer periods, which has in turn allowed them to either sell or consume excess yields later in the season.

However, **many beneficiaries also noted continued challenges in accessing facilities such as aggregation centers.** For some beneficiaries, these centers were located far away, and they were not able to pay transport costs to store at the facilities. In some cases, this is beyond the project's control. For instance, partners in Ghana inherited and refurbished aggregation centers and warehouses which were previously developed by other development partners and not properly scoped at the time that these development partners constructed these facilities. As a result, the project was not able to control the location of the aggregation centers supported.

For beneficiaries with limited access to aggregation centers, brokers often play an important role in purchasing excess production. However, many beneficiaries noted that brokers offer a lower price than what can be achieved at the market. While in some cases this may be driven by brokers trying to take advantage of farmers' limited negotiating power, it may also be the case that brokers are forced to offer lower prices as they themselves are constrained by the market prices and have additional costs to cover to collect and transport the produce. Farmers may require additional education around the economic costs faced by brokers and how this results in lower prices for farmers.

“Another challenge is transport. The distances are great and the farmers have to use donkeys or motorbikes to deliver to the store. Some farmers would like to store but it is costly to deliver to the store so they will just sell to the brokers instead.”

- Beneficiary, Kenya

4.3.1.3. Increase demand for food staples through alternative uses

MAP aimed to increase demand of food staples through alternative uses. Relevant activities to achieve this objective included facilitating creation and expansion of industries that could use food crops; linking farmers to manufacturers and top of supply chain buyers; and, promoting increased import substitution. Through these activities, the program intended to double the volume of staple foods going to alternative uses.

As will be discussed below, this objective was downscaled during the course of implementation due to contextual constraints. As a result, it is not necessary to assess the program's achievement against this objective. However, we present findings related to this objective for comprehensiveness and learning.

During the program period under review, 53 693 smallholder farmers were reached under alternative use, with 94% of them in Kenya and the remaining share in Tanzania. As there are no targets for this indicator, it is difficult to determine the extent to which the program effectively met the objective to increase demand for food staples through alternative uses. Additionally, due to lack of clarity around the definition of this indicator, it is not possible to assess whether these were once off or sustained transactions.

Qualitative data indicate that investment in alternative uses for food staples was limited, in large part due to limitations in the assumptions underpinning this part of the theory of change. AGRA's initial assumption was that farmers would produce sufficient yields to warrant alternative uses of food crops. However, a large share of smallholder farmers targeted through this project were predominantly producing for consumption; the excess available would then be sold to industry. As a result, the farmers were not able to

produce the yields necessary to be competitive, and investment in alternative uses was limited. An example in this regard is provided in Box 6 below.

Box 6: Alternative food uses: an example from Kenya

One project in Kenya focused on stimulating demand for alternative food uses for cassava. While the project was able to identify private processors, the farmers were not able to produce sufficient volumes of cassava roots to meet the buyers' requirements. This challenge in meeting required production levels was driven by disease affecting the cassava plants and inadequate rainfall in the region. As a result, the project experienced limited success in linking large-scale private buyers to purchase cassava from the beneficiaries.

Importantly, the AGRA MAP team recognized the limitations related to this objective during the course of program implementation and this objective was downscaled during the course of program implementation. **This is important as it demonstrates the organization's ability to learn and adapt during the course of implementation to ensure ongoing relevance.**

Integrating MAP with AGRA's pre-existing programs, and other pre-harvest and production programs, to support farmers who have already received support in increasing their yields would enhance the effectiveness of interventions which aim to stimulate demand for alternative uses of food staples.

Also part of this objective, MAP intended to support smallholder farmers to supply produce to top of supply chain buyers, as specified in milestone eight. However, as the program did not include an indicator to measure this, the evaluation team is not able to assess the program's effectiveness in this regard.

4.3.1.4. Promote an enabling environment for local and regional trade of food staples

Finally, MAP aimed to promote an enabling environment for local and regional trade of food staples, with the intention of increasing regional trade by over 25% and enabling access to finance for 10% of the targeted smallholder farmers. In order to obtain this outcome, AGRA supported cross border trade and policy advocacy; developing farmers' skills in risk management; and facilitating access to finance.

Support cross border trade and policy advocacy

Although MAP intended to support an increase in regional trade by at least 25%, the program did not include a milestone or indicator to track progress in this regard. As a consequence, the evaluation team cannot conclude whether MAP contributed to the achievement of this objective; however, we review qualitative data to comment on the program's activities in this regard.

While supporting regional trade is relevant in terms of developing markets for agricultural production, qualitative data indicate that **the effectiveness of the program in this area is limited by the realities of the smallholder farmers targeted.** As discussed under *Reduce transaction costs* above, many of the targeted beneficiaries were subsistence-based farmers, with inconsistent surplus to take to market. Instead, this activity would have been more relevant and have a greater potential for effectively reaching objectives by if it had been targeted at more commercially-oriented farmers.

Develop farmers' skills in risk management

While MAP aimed to develop farmers' skills in risk management, and set a corresponding milestone and targets in this regard, none of the program indicators tracked progress toward this milestone. Furthermore, the evaluation team found limited qualitative data to qualitatively assess the program's effectiveness in this regard. **Tracking progress toward key milestones is important in understanding the extent to which the program**

is reaching the intended objectives. According to one AGRA staff member, since MAP, AGRA's M&E processes have evolved to better track and understand program implementation.

Facilitating access to finance

As part of building an enabling environment, MAP aimed to support access to finance for smallholder farmers, farmer organizations, and SMEs. Specifically, MAP intended to enable access to finance for 10% of the targeted smallholder farmers. However, as data for this indicator were only reported in Tanzania, assessing achievement against the reported number of farmers would paint an inaccurate picture of MAP's achievement against this objective. As a result, the evaluation team is not able to determine whether MAP met this objective. However, we review qualitative and quantitative data to understand the program's effectiveness in this area.

According to program data, 14 961 smallholder farmers in Tanzania accessed finance from banks during the grant period under review.²⁸ However, no data were collected to indicate the value of finance accessed by these farmers, the conditions of the finance, or whether the smallholder farmers were able to repay the finance. Each of the criteria above are important to determine the extent to which accessing finance was beneficial to the smallholder farmers who were supported.

Access to finance remains a major constraint for smallholder farmers, which limits their potential to purchase improved inputs as well as post-harvest equipment. Many smallholder farmers noted the lack of available financing options; when finance is available, it is often at interest rates which exceed their ability to pay. Lack of access to finance can also undermine other project objectives. For instance, because farmers require cash on hand, they are inclined to sell their production immediately post-harvest. Although they know that storing the produce until later in the season will allow them to gain a better market price, these beneficiaries explained that they do not have the luxury of waiting. The challenge around limited access to finance for smallholder farmers is discussed further in the *Challenges* section below.

The program also aimed to support access to finance for farmer organizations and SMEs. Figure 9 below indicates the number of SMEs and FOs supported to access finance by country, as well as the total and average value of finance accessed per entity.

Figure 9: SMEs/FOs accessing finance from banks^{29, 30}

Country	Number of SMEs/FOs accessing finance from banks	Total value of finance accessed by SMEs/FOs	Average value of finance accessed
 Tanzania	55	USD 4 620 055	USD 84 001
 Mozambique	137	USD 899 310	USD 6 564
 Kenya	190	USD 1 323 506	USD 6 966
 Burkina Faso	266	USD 1 142 434	USD 4 295
 Ghana	373	USD 929 902	USD 2 493

AGRA, *Markets Data*, 2017.

²⁸ No values were reported for the other countries included in this evaluation.

²⁹ Where the value of finance accessed was provided, but the number of SMEs/FOs accessing the finance was unspecified, these data points have been excluded from the analysis. This was the case for Kenya in 2013 and 2017, as well as Mozambique in 2017Q4.

³⁰ Note that the total values are nominal values. To remove the effects of inflation before summing across years, it is important to convert to real values. However, finance values were reported in nominal USD, rather than the local currency. Without knowing the exchange rates used to report in USD, the evaluation team were not able to convert the figures to real values.

As indicated in the figure above, the country with the largest number of SMEs/FOs accessing finance from banks was Ghana. However, the total value of finance accessed by these organizations was lowest, at USD 900 884. This indicates that financial institutions in Ghana provided a higher number of low value financing, as indicated by the average value of finance accessed. In contrast, the country with the fewest number of SMEs and FOs accessing finance was Tanzania. Despite this, Tanzania accounted for both the highest total value of finance as well as the highest average value of finance accessed per organization across the evaluation countries, indicating that fewer organizations accessed higher value loans. In both of these cases, this is likely an indication of the risk tolerance of the financial institutions in each country, as well as the credit worthiness of the SMEs and FOs accessing financing.

That Tanzania represented the country with the fewest number of organizations accessing finance is an interesting finding, and is consistent with qualitative data collected through interviews. One project partner noted that it is difficult for businesses in the agriculture sector to access finance in Tanzania, as many banks do not recognize agriculture as a business. As a result, it may be the case that the SMEs and FOs that were able to access finance in Tanzania were the larger, more successful businesses, which would also account for the higher average value of finance accessed by these organizations.

While the evaluation team cannot reach a strong conclusion without further data, AGRA should consider investigating the extent to which access to finance in Tanzania has been limited to the larger, more successful SMEs and FOs. If this is found to be the case, AGRA should consider sensitizing financial institutions to see smaller agricultural SMEs and FOs as potential clients and continue working with these institutions to develop appropriate financial instruments. Alternatively, if banks' primary concern with providing finance to SMEs and FOs is due to risk, AGRA may be in a position to buy down the risk to incentivize banks to engage with the SMEs and FOs, or support financial institutions to more effectively assess credit-worthiness in the agricultural sector.

Finally, while there are many potential benefits to accessing finance, it is unclear whether SMEs and FOs accessed finance at fair conditions, or whether they have been able to repay this finance. As mentioned for smallholder farmers above, collecting data on these considerations would allow AGRA to better understand the extent to which access to finance has benefited program beneficiaries.

As the program did not specify targets for the above results, the evaluation team is unable to assess the program's effectiveness in enabling SMEs and FOs to access finance.

4.3.2. Using data to assess effectiveness

Given the data gaps described above, which limited the evaluation team's ability to assess achievement of targets, this section provides a review of the milestones assessed by the evaluation team. We then comment on the importance of setting targets for indicators, as well as disaggregating overall programmatic targets to include country-level targets.

Table 8: Review of milestones

Milestone	Assessed	Comment
Aggregation centers for smallholder farmers established		While an assessment was provided, it is important to note that the relevant indicator for this milestone measured the number of aggregation centers identified or supported, rather than the number established.

Farmers trained in post-harvest handling and new storage techniques		While an assessment was provided for this milestone, the relevant indicator combined training in PHH, quality, storage and structured trade systems. This limited the evaluation team's ability to assess the number of farmers trained in PHH and storage specifically.
Farmers, traders and processors trained in using structured trade systems		While an assessment was provided for this milestone, the relevant indicator combined training in PHH, quality, storage and structured trade systems. This limited the evaluation team's ability to assess the number of farmers trained in structured trade systems.
Farmers linked to P4P and other food assistance programs		No quantitative data were assessed for this milestone due to the absence of a relevant indicator.
Farmers, traders and SMEs trained in business development services		No quantitative data were assessed for this milestone due to the absence of a relevant indicator.
Market information systems developed		While there is not an indicator for this milestone, the 2017 AGRA Progress Narrative reports that five market information systems were developed. Presumably, this milestone was easy to track, notwithstanding the absence of an indicator, as it can be counted on the basis of number of projects MIS projects funded.
Farmers owning low cost processing facilities		No quantitative data were assessed for this milestone due to the absence of a relevant indicator.
Farmers involved in providing produce to top supplier buyers		No quantitative data were assessed for this milestone due to the absence of a relevant indicator.
Farmers, traders and processors trained in marketing, customs policies, and use of risk management tools		No quantitative data were assessed for this milestone due to the absence of a relevant indicator.
Guarantee funds, investments funds and financial products developed		No quantitative data were assessed for this milestone due to the absence of a relevant indicator.

Assessment of effectiveness was also complicated by the absence of targets for the indicators. Because the milestones did not match indicators in most instances, and there were no targets for the indicators that are available, the evaluation team was not able to meaningfully assess most of the quantitative data. Therefore, where possible and relevant, we report figures obtained for the available indicators; however, this was for the purpose of adding detail the qualitative data, rather than as an assessment of achievement of targets.

To accurately track program performance, it is important to ensure that indicators are appropriately set and defined to measure program milestones and intended objectives. Furthermore, each indicator should include a target, against which program performance can be tracked and assessed over time.

For a program the size of MAP, it is also important to include country-level targets. Disaggregating programmatic targets at the country level is a helpful step in ensuring that overall targets are appropriate, based on estimated potential reach in each country context. Country level targets also enable the relevant programmatic team to assess achievement against targets to better understand how each country is contributing to, or detracting from, overall achievement of targets. In doing so, the team is better positioned to address any gaps.

Finally, as earlier projects did not include IPPTs, as mentioned in the Efficiency section above, the evaluation team was also unable to aggregate country level targets and assess performance from the bottom up. While this limited assessment for this evaluation, this should be less of a challenge going forward as AGRA has since introduced more standardized reporting procedures across grantees.

4.3.3. Successes and challenges

This section details the findings that have emerged around project successes and challenges, including external factors that AGRA and its partners faced during implementation, which affected the achievement of program objectives.

4.3.3.1. Success drivers

Building strong partnerships was identified as a key success driver affecting the achievement of objectives. The following themes were noted as elements of a good partnership:

- **Alignment** in objectives, both between project partners and AGRA, as well as between consortium members. Alignment in objectives ensures that all parties are committed to working together toward a common goal.
- **Regular communication** is important, in part because it ensures that all parties have a common understanding of project objectives, timelines, and potential challenges. Many partners noted that they appreciated the consistent engagement and support that they received from the AGRA team, despite the distance. At the consortia level, some partners also noted the importance of open lines of communication between partners.
- **Flexibility** was also noted as an important element of strong partnerships. Where partners have the capacity to be flexible in response to challenges, it is possible to continue implementing the project. For instance, one partner in Tanzania noted that when their consortium members were briefly suspended, they were able to continue project implementation by contracting the partners' local field officers. In this way, they were able to manage the negative impact of the suspension on reaching project objectives.
- **Previous experience** working together was noted as the final element of strong partnerships. Where consortia members had previous partnership experience, they noted that they were aware of their partners' capacities and constraints, and had an established working relationship. This was also a success driver of interventions where partner had previously worked with AGRA in the earlier stages of MAP.

Partners in Mozambique and Kenya also noted that **establishing direct linkages to buyers was a key success driver for their projects.** These partners established direct linkages by engaging local businesses as off-takers for beneficiary smallholder farmers. Farmers are more motivated to aggregate and practice collective marketing when they have had the experience of selling to a guaranteed buyer. On this, one partner in Kenya noted, "This kind of assurance that there is a market meant that people would be motivated to produce."

4.3.3.2. Challenges

According to project partners, a number of challenges undermined the achievement of objectives. While some noted working in consortium as a success driver, **other partners noted that working in consortium was a constraint.** Key informants noted that challenges can develop when partners have varying levels of motivation and capacity. This can undermine achievement of objectives when one or more partners experience delays in implementing the streams of work for which they are responsible. On this, one partner in Tanzania noted, “in

“There are NGOs that are run by individuals so if it revolves around one person it becomes a problem.”

- Partner, Kenya

implementing an integrated project, partners implement different components that contribute to the success of the common goal. Failure by one organization greatly effects the performance and outcomes expected from other partners.” Despite these challenges, many partners noted that they took measures to mitigate the risk, such as implementing regular communication processes.

Partners also noted challenges related to the grant timelines.

Key informants emphasized that the types of projects they implemented, which aim to address systemic market barriers and engage multiple actors, required longer grant periods of ideally about five years. This is particularly the case where delays in contracting delayed the overall project start, or where the start of the project was not during the relevant phase of the agricultural season. Many partners noted that although they were able to achieve most of their targets in the allowed timeline, this process was difficult and noted that constrictive timelines undermine sustainable market changes.

4.3.3.3. External factors

Partners and MAP staff alike noted a number of external factors, beyond AGRA’s and the partners’ control, which affected the achievement of objectives. These include government intervention, climate shocks, access to finance and donor crowding. Each of these are discussed in turn below.

Government intervention in agricultural markets has hampered achievement of objectives. In Tanzania, the export ban on maize contributed to a reduction in the maize price. Consequently, buyers were disinclined to honor floor prices in contracts as the actual market price fell below the contracted price. In Kenya, government introduced an excise duty on Senator Keg, damaging sales of beer, and ultimately harming the smallholder farmers who had been contracted to provide sorghum to the firms purchasing the cereal. AGRA has undertaken

policy advocacy with national governments in response to these constraints, and the findings of this evaluation suggest that they should continue doing so to support a more enabling environment for agricultural markets.

“Sometimes government policy may interfere with what AGRA is trying to do. For instance, subsidy programs may interfere with the markets. Certain restrictions for certification may restrict the farmers’ growth.”

- AGRA staff, Kenya

policy advocacy with national governments in response to these constraints, and the findings of this evaluation suggest that they should continue doing so to support a more enabling environment for agricultural markets.

Climate shocks affect smallholder farmers’ production and marketing activities. In Mozambique, drought affected the types and volumes of crops that smallholder farmers could produce. In contrast, Kenya experienced flooding during the first year of the project, which destroyed roads and in turn limited the marketing and distribution of production from smallholder farmers to markets. One partner in Tanzania noted that their project was similarly affected by both drought and flood in different project regions, which reduced yields among farmers, particularly harming those who had taken out loans from financial institutions. **While climate risks are beyond AGRA’s control, AGRA should consider integrating climate resilience training and/or climate smart agricultural technologies and practices to enable farmers to adapt to the effects of climate change.**

Access to finance remains a crucial barrier for smallholder farmers. Across the five evaluation countries, many key informants noted that access to finance for smallholder farmers and SMEs is a challenge. In these countries, financial institutions are reluctant to lend to smallholder farmers, and where finance is available, beneficiaries note that the interest rates are often too high. Some partners did manage to facilitate access to finance; in Burkina Faso, some SMEs and rural micro-enterprises (RMEs) explained that they have opened an account with financial institutions and started banking due to their participation in the program. Additionally, beneficiaries noted that they have accessed finance through SACCOs and table banking. Despite these efforts, access to finance remains a major constraint for smallholder farmers, which limits their potential to purchase improved inputs as well as post-harvest equipment. This consideration should be included in integrated programming. We understand that AGRA has mainstreamed inclusive finance interventions and note that AGRA's Financial Inclusion for Smallholder Farmers in Africa Project (FISFAP) is currently working toward this objective. **AGRA should continue directly engaging financial institutions, or working with a relevant partner in this regard, to help them to recognize farmers and farmer organizations as potential customers, and sensitize them on appropriate financial products for smallholder farmers.**

“Financial institutions in Tanzania are still risk averse and consider agriculture and agribusiness as high-risk investment areas.”

- Partner, Tanzania

Donor crowding in the agriculture sector in MAP countries impacts on farmer behavior and sustainable development. Project partners explained that because multiple donors are funding programs in the same regions, many of which are providing services and equipment for free, it is difficult to engage beneficiaries in projects which require repayment for services or equipment. For instance, IMAGE-AD in Ghana noted that it is difficult to encourage ongoing use of their platform as beneficiaries are unwilling to pay for access to something that they initially received for free, even if they perceive the benefit of the platform. Additionally, another partner in Northern Ghana noted that it can be difficult to provide training to beneficiaries for free, as these beneficiaries have participated in other programs which provided them stipends for their participation.

4.3.4. Gender mainstreaming

As a large share of Africa's smallholder farmers are women, AGRA is committed to addressing the specific challenges that women farmers experience.³¹ Despite this commitment, emphasized in the MAP business plan, the evaluation team found **limited evidence to indicate that women-specific needs were clearly scoped and accounted for in project design. Furthermore, MAP did not require project partners to achieve and report on gender-differentiated targets.** While some partners were actively reaching and reporting on gender disaggregated data, because doing so was important to them as an organization, this commitment was inconsistent across partners.

Most partners engaged during the evaluation, with the exception of those specifically targeting women, reported that the minority of their beneficiaries were women.³² One commonly cited reason for this was that women are predominantly active in specific value chains, which may not be targeted by MAP. For instance, interviewees in Ghana and Tanzania noted that their reach to women beneficiaries was limited because they were working in the grains value chain, which is dominated by men, while vegetables are more commonly farmed by women. This finding is interesting, given the MAP Business Plans included an analysis around key intervention opportunities to reach women beneficiaries in each of the program countries. However, these documents were written in 2009, and it is unclear whether the gender analysis was updated over time to reflect market changes.

³¹ AGRA Market Access program proposal to the Bill and Melinda Gates Foundation, February 2010

³² Only two of the evaluated projects reported to be explicitly targeting women: TechnoServe in Mozambique and SAIOMA in Kenya.

Two project partners – SAIOMA in Kenya and TechnoServe in Mozambique - noted that AGRA promised that they would have gender specialists to support their project efforts. However, SAIOMA noted that this position was dropped last minute, while TechnoServe explained that the gender specialist was very peripherally involved. As these were the two projects in the evaluation which included a gender emphasis, this represents a weak attempt to mainstream gender in MAP's programming.

To more effectively mainstream gender in future, AGRA should ensure that upfront situational analyses take into account the varying economic, social, cultural and political situations of men and women. This analysis should also include sex-disaggregated data to enable an understanding around the gender-differentiated impacts of proposed interventions.

Where relevant, a further step to mainstream gender is to design components of interventions to address any dimensions of gender inequality uncovered during the situational analysis. Furthermore, as MAP did not require project partners to achieve and report on gender-differentiated targets, this is an additional step which can be taken to effectively mainstream gender.

4.3.5. Integration

While the MAP proposal emphasized the importance of building on AGRA's pre-existing work by intervening in later stages of the agricultural value chain, integration between the different AGRA programs was not an explicit part of the strategy and was not applied in practice until this became part of AGRA's broader 2017-2021 programming strategy. As part of this strategy, AGRA has recognized the value of integration, both in terms of ensuring relevance to program beneficiaries and leveraging other facets of AGRA work to enhance effectiveness and impact. Prior to this, AGRA had started undertaking some ad hoc integration efforts. However, one AGRA staff member in Kenya noted that MAP had limited success with these early efforts to integrate projects.

“We got to see the advantages of implementing a well-integrated program. We could see the synergies that resulted from linking the input markets to the output markets, we could see that 1+1=3 rather than 2. We could see in reality how farmers who were well connected to input and output markets, that this really impacted on their lives.

- AGRA staff, Kenya

Program integration, both within AGRA's own programs as well as with programs implemented by other development partners, are powerful catalysts for change. On the importance of integration, one partner in Tanzania who implemented an integrated project noted, *“Integrated projects are powerful to trigger changes. In implementing this project, we have noted that farming is a system; addressing only one or two components rarely reveals improvement to the farming community, and among others the reason is that components that build up farming systems are interrelated, so unless many or all components are addressed no tangible results will be realized.”*

AGRA's new emphasis on integration has also contributed to improved knowledge sharing within the organization. One AGRA staff member noted that when the organization was more siloed, program teams were reluctant to exchange and onboard lessons and recommendations from other programs. In contrast, another staff member explained that, since integration, joint planning sessions between programs have encouraged information and knowledge sharing.

AGRA should continue to emphasize program integration in ongoing programming in order to support transformational and sustainable change in agriculture value chains.

4.3.6. Partner support

One of the key recommendations from MAP's Mid-term Evaluation was related to the need to provide further capacity building to grantee organizations. Based on the data collected during this evaluation, it appears that while some partners received in depth support, other partners reported light touch support.

Most partners reported to have received support in the area of M&E. A few of the partners also reported to have received financial management training and assistance in developing proposals, while others noted that it would have been helpful to have received this type of support.

The evaluation team believes that **there are two possible reasons that partners reported varying levels of assistance from AGRA**. It may be the case that this support was in fact provided, but the key informant could not recall or was not aware of the training. Alternatively, it may be the case that organizations received support based on their capacity building needs identified in the organizational capacity assessment that AGRA conducted after selecting partners. However, **all of the partners noted that the assistance they received was helpful in assisting them to navigate the grant management process with AGRA**.

4.4. IMPACT

The Impact criterion assesses *“The positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended.”*³³ This section begins by outlining the observed **beneficiary level changes**, then outlines the changes observed with respect to developing **structured trading systems**, and finally discusses the **gender-specific changes** observed. A summary of the key findings is presented below.

The evaluation questions for Impact are depicted in Table 9 below, which maps each question to the method used and stakeholder group engaged on this particular topic.

Table 9: Evaluation framework - Impact

Evaluation questions	Desktop review	KII: AGRA (HQ)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
Impact					
To what extent have smallholder farmers that have been trained in post-harvest techniques and marketing been able to participate in supply chains? Has this resulted in repeat/contract engagement with markets?				X	X
To what extent did collective marketing by smallholder farmers reduce transaction costs and improve incomes?				X	X
To what extent have delivery platforms for structured trading been effective (WRS, ICT)?				X	X
Did the approach of providing business development services (BDS) to SMEs result in smallholder farmers' linkages and growth? How many of the supported companies are still operating profitably?				X	X
Overall, to what extent did MAP achieve its overarching objectives; namely a reduction in transaction costs, an increase in the value addition in food usage, an increase in demand for food staples through alternative uses, and promoting an enabling environment for local and regional trade of food staples.	X	X	X	X	
To what extent have there been any indirect or unanticipated positive or negative changes as a result of the program?	X	X	X	X	X
Has the program affected men and women differently? To what extent have there been any unanticipated positive or negative change in relations between men/women as a result of MAP?		X	X	X	X

³³ DAC Criteria, OECD website: <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

Impact: Summary of key findings

- At the beneficiary-level, MAP is considered to have contributed to impact at the farmer-level such as improved access to markets through linkages to different types of buyers; increased commitment of farmers to partake in collective marketing through aggregation; access to finance; increased yields and a decrease in post-harvest losses.
- MAP activities have also improved the capacity of value chain actors such as farmer organizations and processors to work with smallholder farmers.
- Through the program's integrated approach, MAP has provided end-to-end solutions that meet the needs of smallholder farmers. As a result, MAP has contributed to an improvement in self-reported farmer economic welfare. The increase in income is reported to have resulted in increased ability to pay for fees and emergencies, make incremental housing improvements, and acquire assets.
- In all MAP countries, efforts have been made to establish structured trade systems with the aim of addressing the inherent market challenges that smallholder farmers face. However, the effectiveness and potential impact of this is stunted by the presence of barriers such as the lack of a supportive regulatory environment and inconsistency in the quality and quantity of produce aggregated by farmers.
- The program is reported to have had a positive impact on women beneficiaries. Women farmers consulted shared that, through MAP-funded interventions, they are now more empowered as project activities have influenced their farming activities and role in the household. This increase in income has contributed to improved financial independence, a reduction in the time spent in the farm and improved the overall household environment. It is important to note, however, that gender mainstreaming was not well implemented across MAP-supported projects and there is a possibility that the gender-specific impact of the project is under- or overestimated by the qualitative data.

4.4.1. Beneficiary-level change

Based on anecdotal evidence gathered through qualitative data collection, MAP's support to partners has had an impact at the beneficiary-level and is considered to have contributed to improved access to markets for smallholder farmers through linkages to various types of buyers; increased smallholder farmer commitment to collective marketing through aggregation; access to finance; increased yields and a decrease in post-harvest losses. Additionally, the program has improved the capacity of value chain actors, such as farmer organizations and processors, to work with smallholder farmers through the provision of business development services and agricultural equipment. In some instances, the program has increased investment in post-harvest technologies and expansion in operations of these organizations.

This section will discuss the changes experienced by smallholder farmers and value chain actors as a result of the program. It should be emphasized that the evaluation relied heavily on qualitative data, and so the beneficiary-level change reported in the sub-sections that follow are based on self-reported impact. However, the report only documents those changes that arose as common themes across the projects and countries, and, while anecdotal, we believe that these findings indicate a certain degree of beneficiary-level change worth noting.

4.4.1.1. Market linkages

According to farmer organizations in Kenya and Tanzania, MAP-supported projects provided them with the skills to seek market information on prices for various crops in the value chain, allowing them to sell their produce at more profitable margins. Previously, farmer organizations engaged brokers who offered poor farm-gate prices, which resulted in unprofitable trade. Farmer organizations in all five MAP countries reported to have developed relationships with various buyers, which has resulted in more consistent markets for their farmers' harvests.

Furthermore, qualitative data from partners and farmers shows that through **the Agribusiness Management Solution for a Competitive Agriculture (AMSCA) project, the program was able to provide smallholder farmers with access to markets by linking them to various value chain actors using IMAGE-AD's technological application, mFarms.** Furthermore, under the AMSCA project, 24 platforms were customized for various actors in Burkina Faso, Ghana, Kenya and Mozambique with the aim of improving their supply-chain management. It was reported that these platforms have had a positive impact on the operations of value chain actors, such as processors and warehouse operators, by decreasing their transaction costs and increasing the volume of produce purchased from smallholder farmers. For example, in Ghana, IMAGE-AD worked with rice processors, such as Weinco, who used the platform to increase operational efficiencies by tracking the amount of produce purchased from farmers, resulting in increased profitability. Additionally, through mFarms, partners such as BRICORP-SICAREX in Burkina Faso and GGC warehouses in Ghana, were able to provide their beneficiary farmers with extension messages on market information such as input supplies and market prices, and it provided an online marketplace that directly links farmers to buyers across countries. Through their integrated interventions, BRICORP- SICAREX and GGC, are reported to have enhanced smallholder yields by providing access to certified inputs such as seeds, fertilizer and pesticides, and increased farmer incomes through structured outgrower schemes.

However, despite these advances, there continue to be some challenges with the capacity and commitment of value chain actors and smallholder farmers as they **struggle with the affordability of the mFarms platform.** Beneficiaries such as warehouse operators are still in the early stages of establishing their businesses and reported that paying for mFarms, despite understanding its benefits, was burdensome as they are looking for ways to reduce operational costs so as to breakeven. Other challenges cited by beneficiaries include the lack of reliability of the mFarms service due to poor network coverage in some areas, and low customer literacy levels and awareness of the mobile platforms available. These challenges also pose a risk to the commercial viability and effectiveness of MAP's ICT project. Despite this, over 150 000 farmers³⁴ were registered on the platform and there is evidence of more established and literate commercial farmers in Ghana that report **positive outcomes in their lives as a result of using the mFarms platform.** Examples of these outcomes include improved access to markets as the platform enables farmers and potential buyers in various locations to communicate and agree on terms of purchase, knowledge and understanding of GAPs through access to extension messages, as well as reduced risk of theft as farmers do not have to travel long distances with their produce to access markets.

According to beneficiary SMEs and farmer organizations, **MAP has also successfully linked approximately 783 791 smallholder farmers through their farmer organizations to top of supply chain buyers and sold approximately 724 830 metric tonnes of produce to these buyers³⁵.** However, **the viability of forward contracting remains a challenge for many smallholder farmers.** Some of these challenges are due to the inability of smallholder farmers to meet the required demand, despite aggregation. This is due to the fact that most smallholder farmers produce for household consumption first, and then market the surplus. Forward contracting is difficult under such circumstances because of the risk to the buyer. In addition, smallholder farmers produce poor harvests as a result of climate change and there is low contract compliance by farmers who engage in side selling. Additionally, in markets such as Tanzania, there are prevailing market barriers as the government has not formalized forward contracting in value chains such as maize. **There is a need for increased buy-in and ecosystem activities to develop a supporting regulatory environment in order for contract farming to be successful and scalable.**

³⁴ IMAGE-AD, Narrative report and no cost extension letter, September 2016.

³⁵ Market Access Program, Results Measurement Data as at December 2017.

While the impact of the market linkages is fairly small due to prevailing challenges, **partners and external stakeholders consider the work done through MAP to have been essential in laying the groundwork for testing different means of linking smallholder farmers to the market.**

4.4.1.2. Collective marketing

MAP's approach to work through farmer organizations is an important driver of success for collective marketing of smallholder farmer produce. Stakeholders interviewed during the evaluation agree that MAP's focus on providing training and capacity building of farmer organizations has resulted in substantial changes in the awareness and effectiveness of aggregation of smallholder farmer produce. As a result of project trainings, there have been improvements in beneficiary farmer organizations' capacity to effectively and efficiently operate based on transparency and good management principles.

The increase in capacity of farmer organizations has fostered the formation of aggregation centers and/or strengthened already existing aggregation centers, approximately 946 aggregation centers³⁶ were supported and/or identified by AGRA under MAP. The evaluation team found that in Burkina Faso, MAP supported the establishment of 86 aggregation centers (10 under BRICORP, 26 under APME2A, and 50 under GRAD). It was reported by farmers in farmer groups that they now see value in selling as a group and not individually, as this has benefits in higher market prices. Given that farmers now fetch higher market prices as a result of collective marketing, farmers reported that they now bring in increased income and time is saved to partake in other economic activities as they do not have to spend long hours at the market.

4.4.1.3. Business development support to SMEs

MAP partners' BDS, including management training, development of business plans, and the provision of agricultural equipment has contributed to building the capacity of SMEs, such as traders and processors, in the program countries. The majority of SMEs reported that they greatly appreciated the BDS provided through MAP-supported projects. SMEs in Tanzania shared that the knowledge and skills gained from training in finance, human resources and management has improved organizational operations and enabled a shift in the business model from a distribution company to becoming a processor. Another group also reported having an improved understanding of running a formalized business as a result of CSDI's business plan development support.

Furthermore, SMEs interviewed for this evaluation shared that **MAP grants helped in the purchase of agricultural equipment, such as cleaners and dryers, which were used to improve the quality of produce purchased from smallholder farmers. Furthermore, SMEs are able to lease out machinery to farmers, thus generating extra income.** Lastly, MAP provided market access to a large number of farmers by linking SMEs to farmer organizations, thereby allowing SMEs to purchase produce from aggregation centers, and reducing the operational costs previously incurred from sourcing produce from individual farmers. **The increase in operational efficiencies as a result of MAP-supported projects has led to SMEs accessing additional funds from development actors.** For example, an SME in Ghana qualified for the Africa Enterprise Challenge Fund (AECF) in 2016. Other SMEs in Tanzania have accessed additional support from donor organizations such as USAID to expand their business models.

³⁶ Market Access Program, Results Measurement Data as at December 2017. The breakdown and analysis of AGRA's support to aggregation centers is covered in detail under the section Effectiveness on page 33.

4.4.1.4. Adoption of post-harvest loss reducing technologies

MAP partners' training on post-harvest management, promotion of post-harvest handling technologies and development of storage facilities aimed to reduce post-harvest losses, improve quality and quantity of produce, and in turn result in an increase in gross margin for farmers from the amount of harvest sold. The evaluation team found that many **smallholder farmers, processors and warehouse operators have adopted the use of post-harvest technologies promoted through the program, such as the use of pesticides for fumigation, tarpaulins, threshing machinery, and hermetic bags.** Anecdotally, farmers reported an increase in the adoption of post-harvest loss reducing techniques. Some of the farmers and farmer organizations

“Farmers who cannot afford to purchase the recommended post-harvest loss reducing techniques have adapted by using alternative means such as the use of ash as a fumigant in place of pesticides.”

- Farmer, Ghana

interviewed shared that they have invested in further equipment since seeing the benefits of using them. For example, farmers in Kenya and Ghana have purchased hermetic bags and adopted the use of pesticides prior to storing produce to ensure that it does not get infested by pests and quality is preserved. Where farmers do not have access to finance to purchase pesticides, post-harvest loss reducing technologies or storage equipment, they make use of the equipment provided by the program to the farmer organizations or have adapted the techniques using traditional methods. As a result, we conclude that **the adoption of post-harvest loss reducing practices as promoted by the MAP have likely contributed to a reduction in post-harvest losses.**

4.4.1.5. Access to finance

Broadly, lack of access to finance is one of the key constraints that smallholder farmers still face in agricultural production. Without the necessary finances, farmers cannot afford to pay for inputs and labor, making the knowledge and skills gained through training and capacity building difficult to implement. One of the objectives of MAP was to facilitate access to finance to program beneficiaries (smallholder farmers and SMEs) so as to promote an enabling environment for local and regional trade of food staples in the target countries. Access to finance also extends to the reduction of post-harvest losses as it affects farmers' ability to pay for processing services and/or storage facilities. **Through MAP, some of the supported interventions have linked smallholder and small commercial farmers to credit products from different formal and semi-**

formal financial institutions. Although not widespread, there is anecdotal evidence from the FGDs in Ghana and Mozambique, that the program has successfully influenced access to finance for some smallholder farmers. In Ghana, a few GGC farmer beneficiaries, who sell their produce commercially, shared that through the establishment of a WRS they are able to access credit from financial institutions, where the stored produce acts as collateral and the loans are repaid after the sale of produce. In Mozambique, a small number of female commercial farmers under TechnoServe were selected to receive loans to purchase threshers. However, **the evaluation was unable to assess the real impact of this cannot as farmers are still in the process of repaying their loans,** which diverts funds and resources away from either other income-generating activities or reduces the household's disposable income. This was noted by the small commercial farmers under TechnoServe, who reported no significant changes in their income, household or personal wellbeing. Interviews with these farmers revealed that this can be attributed to the burden of the loan repayment. It is too early to conclude what the impact of threshing services will be, but it is expected that a higher income will be realized once the loans are repaid.

“We have created a table banking group that allows us to re-distribute our savings before the farming season to purchase inputs on time.”

- Farmer, Kenya

“Women now have access to a fiscal number under the farmer organization that allows them to open bank accounts and access loans.”

- Farmer, Mozambique

Where MAP did not facilitate access to finance for program beneficiaries, FGDs revealed that farmers and farmer organizations had created and/or participated in table banking, SACCOs and savings groups to access finance. This form of access to finance was cited as being particularly useful for smallholder farmers who are often excluded from the formal lending sector due to perceptions of risk and the lack of collateral. Although farmers reported benefits of accessing finance and the growth of group lending during FGDs, this was not necessarily as a result of MAP. For example, the Kitise farmer organization in Kenya applied on its own for the Tetheka Fund - a Makueni county government fund

that provides group loans to SMEs, farmer organizations and table banking groups in the community at zero interest and flexible repayment terms. Further to this, Kitise has access to credit through a SACCO that allows the farmer organization to purchase produce from farmers. The SACCO loan is repaid once the stored produce is sold at a later date. Similarly, farmers in Mozambique under ADRA have created rotational savings groups as a means of saving their income and accessing non-credit finance when necessary. This they did of their own accord.

The MAP-supported projects in Ghana and Tanzania, also provided smallholder farmers and farmer groups with training on record-keeping and financial management. **Although the evaluation team did not find any evidence of the extent to which this training has enabled farmers and farmer groups access to finance, farmers acknowledged the importance of the training in relation to tracking income, expenditure and profits.** Small commercial farmers in Ghana, under the GWARD project, also shared that the interventions have increased their financial literacy and that they are more open to using formal financial products and services as a result.

“After MAP exposed us to working with financial institutions, we have moved from storing our money at home to the bank which is safer.”

- Farmer, Ghana

4.4.1.6. Economic welfare

One of the overall objectives of MAP was to improve smallholder farmer income through facilitating access to markets. The main measures of economic welfare are household income, expenditure and savings. This section looks at the degree to which MAP has had an impact on household income, as reported by the beneficiaries in interviews and FGDs.

Qualitative data from KIIs and FGDs with beneficiaries suggest that MAP has been somewhat impactful with respect to the (self-reported) economic welfare of the program beneficiaries. During the FGDs, many smallholder farmers reported that, as a result of the changes effected by the program, specifically increases in quality and quantity of produce, farmers who were previously farming mainly for consumption purposes are now also farming for commercial purposes. Not only does the anecdotal evidence show that more smallholder farmers are taking up farming as a business, but most of the farmers claim to be more successful in their farming activities after participating in the MAP interventions. It was also noted during FGDs that since farmers have expanded their production and are selling produce through aggregation, higher income is being realized.

Improved economic welfare can also affect a household's disposable income. **The evaluation found anecdotal evidence that smallholder farmers are now more resilient to financial shocks. Farmers reported that they are better able to pay for school fees and medical bills as a result of MAP activities.** Anecdotally, the majority of FGD participants across the five countries shared that they are now able to pay for secondary and tertiary education for their children. In addition to this, as discussed in the *Access to Finance* section, there

are examples of smallholder farmers in the five countries having a greater ability to save and access finance in the event of an emergency through their savings groups.

Many farmers also reported to have used their increased income to make improvements to their houses, acquire assets, and provide diversify their income. Farmers across all five countries acquired assets such as bicycles, motorcycles and mattresses. They also reported to have invested in livestock such as poultry and cattle to diversify their income, by selling eggs and milk. Farmers also use these animals to improve their diet and reported better nutrition as a result of this. Lastly, resulting from the above, the majority of the beneficiary farmers stated that they are optimistic that their household's financial situation will improve in future as they have increased knowledge and awareness of GAPs, which has resulted in an increase in incomes despite the existing market challenges.

The evaluation findings suggest that MAP has contributed to a positive impact in the lives of its beneficiaries and their households. However, continuing to monitor a cohort of beneficiaries beyond the program will allow AGRA to assess how impact progresses over time, since the full impact of the program is only likely to be observable over a longer period of time. Furthermore, conducting a quantitative baseline and endline survey of program participants would allow for further depth in impact measurement.

The following box provides some examples of the extent to which MAP beneficiaries report that the program has impacted their lives. More information on each of these projects is provided in *Appendix 1: Partner profiles*.

Box 7: Indications of beneficiary-level impact

In **Kenya**, farmers in the Mbuvo farmer group reported increased income as a result of joining the commercial village under Farm Concern International (FCI) project. Through the commercial village, an umbrella of farmer groups partner in the production, processing and marketing of produce. By coming together, MAP beneficiaries reported to have experienced an increase in production, enhanced quality of produce and met the market demands, thereby realizing a higher income. Under SAIOMA, the Katheka group was trained on GAPs in the project's input component. As a result of implementing GAPs, farmers reported an increase in income from the surplus harvest achieved. Another finding from the FGDs is that farmers in the Mbuvo farmer group have been able to increase their standard of living by saving their surplus income and/or purchasing income-generating assets, such as livestock and transportation. For example, a female member of the FGD reported to have purchased a motorbike that is used to generate a daily income by providing transport services to the community.

In **Mozambique**, MAP has facilitated access to markets which has reduced the number of middlemen that farmers work with and has resulted in farmers realizing higher prices, in turn making a profit from their agricultural activities. MAP beneficiaries under TechnoServe noted that as a result of using threshing machines in the soya bean value chain, there has been a reduction in the amount of resources spent on labor and time spent in the farm, thereby allowing farmers to engage in other income-generating activities. Furthermore, farmers who purchased the threshing equipment are earning additional income by leasing out equipment to other farmers in the community.

In **Ghana**, MAP has contributed to increased income for SMEs such as agro-dealers and warehouse operators. MAP's contribution to the scaling of IMAGE-AD's mFarms platform is reported to have increased the use of the mobile application to assist with improving the efficiency of business operations and providing relevant market information, such as price and products in demand. IMAGE-AD agro-dealers interviewed reported to have increased sales as a result of increased awareness of the inputs demanded by farmers and market prices. Given that the maize value chain is volatile, GGC's warehouse operators and farmers have reported that the storage of maize allows them to sell produce when the market prices are high, thereby earning higher incomes from sales.

4.4.2. Structured trading

The use of organized marketplaces where farmers and buyers come together to trade commodity-related contracts, governed by a set rules, was agreed by MAP to be one of the most effective tools to overcome the

inherent market-related challenges in the agricultural sector, and the evaluation found that **structured trade systems are indeed a relevant price-risk management solution for both smallholder farmers and buyers.** Overall, the program included all the main components required of a structured trade system, namely; aggregation, storage capacity, rules of trade and contracts, WRS, and market intelligence systems (through IMAGE-AD's mFarms platform and EAGC's Regional Agricultural Trade Intelligence Network (RATIN) platform) where quality and quantity of produce is achieved. The evaluation found that structured trade systems were implemented to varying degrees of sophistication, and with varied success, across the countries of focus, with some interventions focused on the development/refurbishment of aggregation centers, and others attempting to establish complex WRSs in particular countries. **Therefore, while MAP attempted to establish structured trade systems, this was done in a piecemeal manner, limiting the effectiveness of these systems at the individual country and project levels.**

The MAP-supported projects encouraged farmers to aggregate their produce with the purpose of selling produce in bulk in order to achieve better prices. Through KILs with various program stakeholders and farmers, the evaluation team found that **increased participation in community aggregation was associated with better income outcomes and access to markets for smallholder farmers** and it was reported that the **number of farmers actively participating in aggregation has substantially increased as a result of MAP.** Farmer organizations also reported success in having better bargaining power and as a result, have been able to negotiate higher prices for their produce. However, despite the benefits associated with working in farmer groups and aggregating produce, the evaluation found that across the five countries, **farmers still largely partake in side selling which affects the quantity of produce available for purchase by buyers.** The inconsistency in quality of produce and inadequate supply of produce acts as a disincentive to top-of-the-supply-chain buyers thus limiting the effectiveness of trade and forward contracts, which are important when linking smallholder farmers to top-of-the-supply-chain buyers, and markets more broadly.

Interviews with smallholder farmers and warehouse operators revealed that **the establishment of WRS enabled certain beneficiaries to access finance from formal institutions, but not all those involved.** The use of the WRS acts as collateral, thus facilitating increased bank lending especially for farmers as it presents fewer risks. Furthermore, the construction of warehouse facilities in smallholder farmer communities enabled proper storage of produce, which maintained quality of produce and protected farmers' harvest from further losses. Through the program, MAP-supported projects also encouraged farmers to store their grains and grade. Farmers reported that this allowed them to hedge against volatile prices of grains such as maize, thereby fetching a better price.

However, despite the self-reported positive impacts of WRS by certain program beneficiaries, the evaluation found that, in general, there is **poor utilization of certified warehouses across the five countries.** It was reported that farmers still face challenges with storing their produce in warehouses, such as the transactional costs associated with transportation from their communities, and storage prices, which are perceived to be too high. While community-approved warehouses are also in place, these are mostly government-owned and do not sufficiently meet the WRS certification standards. Farmers under the GWARP project in Ghana were trained on standards, but according to warehouse operators, the application of these resulted in strained relationships with farmers.

“Despite having community-approved warehouses, these are of poor quality and result in harvest being damaged or attacked by pests.”

- Partner, Ghana

Another challenge affecting the effectiveness of structured trade systems is the lack of supporting regulatory and enabling environments. In value chains such as maize, the governments in Kenya, Ghana and Tanzania, dictate the price of the crop and a range of external factors such as lack of access to markets and low storage capacity, make the commodity very volatile. **Additionally, the evaluation found that across**

the five countries, farmers still largely partake in side selling of their produce which affects the quantity of produce available for purchase by buyers. The inconsistency in quality of produce and inadequate supply of produce acts as a disincentive to top-of-the-supply-chain buyers thus limiting the effectiveness of trade and forward contracts, which are important when linking smallholder farmers to top-of-the-supply-chain buyers, and markets more broadly. In order for WRS and commodity exchanges to be of value, there is a need for farmers to supply large volumes of produce to absorb the variable costs. The high volatility of the price of maize coupled with the lack of consistent aggregation, results in farmers not storing their harvest in warehouses and instead selling their produce immediately after harvest.

MAP also made use of **ICT platforms**, such as mFarms in Ghana and RATIN in Kenya, that provided farmers and value chain actors with real-time market pricing information for inputs and produce. As a result of the success of mFarms under the AGRA-supported project, IMAGE-AD has expanded to 15 countries in Africa and a range of stakeholders, including private sector organizations and governments, are using mFarms to access market and value chain data. It was also reported by beneficiaries, such as farmers and warehouse operators, that the perceived benefits of using mFarms include the following: beneficiaries can experience a decrease in overall transaction costs through decreased transportation costs and increased access to market information. mFarms also enabled the program in Ghana to integrate smallholder farmers into supply chains both domestically and internationally, and it acted as a centralized marketplace for farmers resulting in increased access to markets and improved profitability. However, the evaluation team found that despite the program's success there is a sustainability risk in relation to the continued use of mFarms in Ghana, post-MAP intervention. Program beneficiaries, such as warehouse operators and smallholder farmers, shared that they have largely discontinued the use of the platform due to the perceived burden of using the service as they are still in the early stages of their businesses and are yet to make enough profits to absorb the cost of using the platform. At the farmer-level, only small commercial farmers reported to have continued to use the platform, but it is likely that this can be attributed to the type of farmer and the fairly high literacy levels of these farmers.

4.4.3. Gender

Both AGRA and the Bill and Melinda Gates Foundation are committed to addressing the challenges faced by women in agriculture. As discussed under *Effectiveness* above, gender mainstreaming was not well implemented; however, there were still some notable gender-specific effects of the program reported by beneficiaries.

A prominent finding from the FGDs and KIIIs across all five countries was that MAP has impacted women empowerment at the individual level. The program influenced the way women view their farming activities, farming methods used and their roles in their families. As a result of trainings on GAPs, farming as a business, and use of alternative methods of agriculture, such as conservation agriculture, **female beneficiaries reported that they used the knowledge and skills gained to convert their farming activities from being consumption-focused to commercial businesses.** Additionally, because of business and financial training, female beneficiaries reported increased financial independence and empowerment as they are better able to make good financial decisions and manage their business finances. In Kenya, female farmers under the Katheka group reported to have used the income earned through their farming activities to establish new businesses, such as small shops near their homesteads. Anecdotally, women reported to invest in livestock, such as cows, so as to gain extra income from milk sales.

Female beneficiaries in Kenya also reported an improvement in the overall household environment. Prior to participating in income-generating activities, there was reportedly a regular occurrence of domestic disputes between women and their husbands. As a result of participating in the program, women are able to contribute towards household costs and the increased food security has resulted in improved relations in the household. Further to this, a MAP beneficiary in Ghana, shared that prior to the use of the warehouse system, she stored produce in the household, which her husband sold without her knowledge and the proceeds of which

were not spent on household-related expenditure. Storage of produce in a warehouse has resulted in her having greater control of the produce and the household finances.

In Tanzania, female beneficiaries noted that through training on the use of agricultural equipment and post-harvest reducing technologies, women now spend less time in their farms and are able to participate in other income generating activities. They also spend more time with their family, which has resulted in strengthened relationships between themselves and their family members. In all five countries, the adoption of the use agricultural equipment, such as manual clippers and threshing machinery, has also improved the health of women beneficiaries as the use of equipment has reduced the physical strain previously experienced. **An unanticipated outcome that was reported in Kenya, was the change in attitudes and perceptions of men in the targeted communities as the success of female beneficiaries encouraged them to adopt GAPs and join farmer groups.**

4.5. SUSTAINABILITY

The Sustainability criterion assesses “*whether the benefits of an activity are likely to continue after the donor funding has been withdrawn.*”³⁷ This section begins by outlining the reported **project sustainability** from AGRA’s perspective and that of its partners, the **sustainability of beneficiary-level impact**, and, the **policy and ecosystem level activities** that have been observed and are required to ensure the program’s impact is sustained. A summary of the key findings is provided below.

The evaluation questions for Sustainability are depicted in Table 10 below, which maps each question to the method used and stakeholder group engaged on this particular topic.

Table 10: Evaluation framework - Sustainability

Evaluation questions	Desktop review	KII: AGRA (HQ)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
Sustainability					
To what extent did intervention partners and value chain actors adopt new behaviours and practices? Are these partners and value chain actors still practicing these?			X	X	X
To what extent, if at all, did intervention partners and value chain actors adapt these new practices since the program stopped intervening?				X	X
To what extent has sustainability of the interventions been taken into account by the grantees? How did the grantees try to ensure the sustainability of their interventions?			X	X	
What country-level policy and regulatory reforms did AGRA support/facilitate that increased markets and trade of focus crops? What reforms still need to be supported in focus countries and regions to improve markets and regional trade?		X	X		
What ecosystem features are most important for success and expansion of market access for smallholder farmers?		X	X	X	
What are the possible risks to the sustainability of the MAP intervention outcomes?		X	X	X	X

³⁷ DAC Criteria, OECD website: <http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

Sustainability: Summary of key findings

- Given that MAP has largely worked with NPOs and NGOs the sustainability of the MAP-supported projects is mixed across the portfolio.
- There is minimal evidence of scalability and sustainability of MAP's not-for-profit partners, as many of the operational costs, that the beneficiaries were reliant on, were covered by MAP's funding
- Although MAP also implemented projects through for-profit organizations such as IMAGE-AD, there is not yet evidence to suggest that this project is commercially sustainable, as there is limited buy-in and willingness to invest in the solution by value chain actors in the agricultural sector.
- At the beneficiary-level, there is evidence that the impact achieved under MAP is likely to be sustained should beneficiaries maintain what they have been taught under MAP. However, it is too early to tell the extent to which beneficiaries will maintain these activities in the long-term.
- At the policy-level, there is a strong potential role for AGRA to continue playing in facilitating the development of the ecosystem to promote market access for smallholder farmers, particularly within the regulatory and policy making space. Structured trading systems in the countries of focus still require support from development actors to enable their development until they can do so organically.
- Finally, while the program had some impact as a result of MAP's approach to promoting market access for smallholder farmers, there are still barriers in the ecosystem that have limited the extent to which MAP could achieve its set outcomes or sustain the impact achieved. AGRA is in a unique position to continue working to change the perception of ecosystem players to provide a business for various value chain actors to work in the promotion of market access to smallholder farmers.
- MAP's use of an integrated approach to programming has facilitated partnerships across the sector to implement end-to-end solutions to address the needs of smallholder farmers and value chain actors.

4.5.1. Project sustainability strategy

Despite the MAP strategy stating the program's intention to invest in initiatives that had potential to grow to scale or self-finance and become commercially sustainable, the evaluation found that **the sustainability and commercial viability of the projects that the MAP has supported appears mixed across the portfolio of partners.** While the envisaged sustainability pathway was of moving towards private sector commercialization, in reality, the majority of partners supported by MAP are still not-for profit organizations (NPOs) or non-governmental organizations (NGOs), who by virtue of their mandate, are reliant on donor funds and whose incentives are not necessarily aligned with the sustainability of the interventions.

“AGRA chose to work with private sector organizations and move away from working with NGOs to show proof of concept and achieve sustainability.”

- AGRA

Additionally, program stakeholders noted concerns about the short amount of time that was allocated for the MAP-supported projects. While most projects had a duration of three years, partners were in agreement that a period of at least five years would have been more appropriate to realize full impact and improve the likelihood of sustainability of the project. As discussed earlier in the report, some partners think that the projects were rushed and not enough time was dedicated to implement the different components of the projects effectively. Additionally, program stakeholders acknowledged that working through agricultural value chains takes time and a longer time frame needs to be allocated to test the impact of the project. For example, in a space of three years, it is highly unlikely to see farmer organizations operating at full potential, where they have established market linkages with buyers and are observing repeat sales from bulk output marketing.

There is minimal evidence of scalability and sustainability of MAP's not-for-profit partners, as many of the operational costs, that the beneficiaries were reliant on, were covered by MAP's funding. However,

despite the minimal evidence of project scalability, the following are some examples of how the program's not-for-profit partners have attempted to implement project sustainability strategies:

- GGC in Ghana offers support to warehouse operators at a yearly subscription fee. However, while warehouse operators found this support beneficial, they have not adopted it post-MAP implementation. The reason provided was that it increased operational costs, thereby affecting profitability as their operations are yet to breakeven. The majority of the warehouse operators supported by the program are between the revenue and profit earning stage of their operations, their focus is to ensure their businesses grow and become successful. Therefore, paying for operational support to GGC is not a priority as partners are trying to avoid running into operational constraints.
- ADEM in Mozambique noted that its project design and strategy is aligned with current government priorities. This enables increased buy-in and ease of lobbying for either government support and/or adoption of the project, or assistance in creating an enabling environment to ensure scalability of project activities.
- EAGC in Kenya has established Grain Hubs, without the support of MAP, as a means to offer continued support to smallholder farmers, post-MAP implementation. These Grain Hubs are one-stop shops that provide inputs at wholesale prices for farmer groups, mechanization services and agronomic advice. The Hubs also make additional revenue by leasing the space for other community activities when it is not farming season.
- FCI operates using the commercial village model in Kenya that is run by village facilitators that also offer agricultural support to farmer organizations, such as marketing and leasing of technologies to dry and process cassava. The use of village facilitators allows for continued community ownership and participation in the running of the commercial villages. FCI also plans to increase revenue by expanding this to other crops and leveraging existing structures to work with other developmental organizations in the region.

On the other hand, developmental projects that are implemented by permanent actors such as for-profit organizations, government departments and associations tend to have strong commercial viability considerations as these projects stand a better chance of seeing their activities carry on post-project funding as they are taken up by permanent actors in the market. However, the evaluation found that although MAP worked with private sector organizations such as IMAGE-AD's ICT-based solution, which has a proven business case, there is still limited buy-in and willingness to invest in the solution by value chain actors in the agricultural sector. **AGRA needs to develop a sustainability plan, and to play an ecosystem facilitation and support role to prove the use case of ICT in agriculture.**

4.5.2. Beneficiary level impact

As discussed in the *Impact* section above, the program has contributed to various outcomes at the beneficiary level. **The evaluation findings suggest that the impact achieved at this level is likely to be sustained should beneficiaries maintain what they have been taught under MAP. However, it is too early to tell the extent to which beneficiaries will maintain these activities in the long-term.** A key risk to this is the fact that many of the project services and the bulk of the agricultural equipment was provided to the farmers free of charge or at substantially reduced rates. While this was necessary to demonstrate the usefulness of the program activities and increase buy-in, there is an element of donor saturation in each of the five countries of focus that creates a degree of dependence on grant-funding or the provision of free solutions. This in turn results in a number of projects failing to sustain their solutions over the longer term.

Box 8: Example of mFarms, ICT-based solution

While mFarms offered free agronomic training to farmers under the MAP intervention, once the intervention came to an end, the partner reported that they could not continue this as it did not generate revenue and there was low uptake by smallholder farmers to pay for the use of the platform. With the exception of Kenya, there is recognition across program stakeholders, such as partners, traders and processors, that the use of ICT in the agricultural sector is still in the very early stages, and there is a need for alternative intervention approaches, such as cost-sharing arrangements across actors in the value chain prior to program implementation to encourage continued usage once grant-funding comes to an end. For example, to replace farmers paying for the mFarms solution, actors such as farmer organizations and buyers can share the cost of farmers using the platform. Another approach would be increased sensitization of the solution to farmers to help them understand the business case and benefits they could achieve from use of the ICT solutions.

Further to this, MAP partners and beneficiaries noted a range of factors that may be affecting adoption of ICT solutions, such as the level of mobile phone usage, low literacy level among farmers, poor mobile network coverage and the high cost of internet usage. Despite this, some farmers and SMEs continue to use the mFarms platform to receive market information and access to a centralized market. This highlights the importance of developing additional use cases for ICT solutions to encourage active usage and meet the needs of particular beneficiary segments.

There is some evidence of continued implementation of what was taught at the SME, farmer organization and warehouse operator level. The evaluation team found that the majority of these stakeholders, have continued usage of agricultural equipment, aggregation centers and warehouses. The stakeholders shared that many of their businesses have achieved operational efficiencies and are generating increased income in comparison to before the MAP intervention. For example, an SME in Tanzania still makes use of the training manuals provided under the CSDI project. Although some of the material has been replaced with up-to-date manuals to reflect the current business environment, the knowledge gained under the MAP-supported project is still considered relevant to business operations.

4.5.3. Policy and ecosystem level

4.5.3.1. AGRA policy support

MAP's objective to support the development of structured trading systems, and the challenges associated with doing so, suggests that there is a need for catalytic policy support for it to be established. Structured trading systems are still in the early stages of development in the countries of focus and have not reached the point where expansion can take place organically without the support of development actors and the government. **There is still a role for AGRA to play in ecosystem development to promote efficient and inclusive markets for smallholder farmers.**

Enabling policy and regulation is an important requirement for the development of markets and there is a significant role that AGRA can play in advocating for enabling policies. **Generally, engagements with policy makers and regulators is challenging, which can affect sustainability, as it requires long-term engagements. AGRA has played a key facilitation role by advocating with different private sector organizations in the sector to effect change on particular issues.** For example, AGRA and the East African Breweries Limited (EABL) advocated against the tax on sorghum that affected approximately 25 000 farmers as it resulted in the collapse of the sorghum market. This resulted in growth in value chain activities as farmers were able to grow the crop and find a market produce at a profit.

Using the WRS as an example, there is a need for AGRA to continue playing the role of the grant-maker and supporting policy advocacy. Currently the governments in all five countries are involved in price-setting of agricultural commodities, which means that the commodity exchange market does not function according to supply and demand mechanisms. This makes WRSs ineffective since the prices set by government are above

market prices, which removes the incentive for farmers to store their produce while waiting for market prices to rise.

4.5.3.2. Ecosystem

Finally, while the program had some impact as a result of MAP's approach to promoting market access for smallholder farmers, there are still barriers in the ecosystem that have limited the extent to which MAP could achieve its set outcomes or sustain the impact achieved.

According to KIs with various program stakeholders, **there a number of prevailing challenges specific to market access**, including a lack of locally-sourced post-harvest loss reducing technologies used in conservation agriculture such as rippers, herbicide applicators and chiseled ploughs; an unfavorable regulatory environment for markets, such as government export bans and commodity price fixing; and demand-and-supply issues where smallholder farmers do not have adequate quality and quantity of produce demanded by top-of-the-supply-chain buyers. For example, FGDs with smallholder farmers revealed that there was value in the market linkages that MAP provided with government buyers through forward contracting agreements. However, there are challenges in the government payment system that results in delayed payments to farmers. Farmers shared that they require cash upfront to satisfy their short-term needs and to meet their day-to-day expenses, which results in them defaulting on these arrangements and selling to brokers at low, farm-gate prices.

Through programs like MAP, AGRA is in a unique position to contribute to changing the perception of various ecosystem players, such as for-profit organizations and governments, by proving the potential business cases for working with value chain actors to promote market access for smallholder farmers. For example, access to finance still remains a challenge for SMEs and farmers, which negatively affects the adoption of certified inputs, investment in agricultural inputs, and use of post-harvest loss reducing technologies. AGRA is well suited to reduce the perceived financial risk of these beneficiaries by working with various financial institutions to create suitable financial products and services. **Finally, MAP's decision to use an integrated approach to programming has facilitated partnerships amongst different actors, thereby delivering end-to-end solutions addressing the needs of smallholder farmers and other value chain actors.**

5. CONCLUSIONS AND LESSONS LEARNED

The overarching conclusions under each of the DAC criteria are detailed in this section. These are also highlighted at the beginning of each section and are based on the findings and analysis contained in this report.

5.1. RELEVANCE

- MAP's strategy focused on postharvest stages of the agricultural value chain, and aimed to reduce postharvest losses and increase smallholder farmers' participation in markets. While targeted activities and value chains were based on an initial business plan development process, thereby aiming to ensure relevance to country context, these plans were not updated to ensure ongoing relevance of interventions in each country.
- Additionally, while the strategic focus was initially on postharvest activities and market linkages, many of the projects funded through MAP included training in GAPs, representing a strategic adaptation of the program's original strategy. However, this shift was relevant given many of the beneficiaries assisted reported that production was a challenge for them prior to their participation in the program.

- MAP's strategy increased in relevance as it evolved to include an increased emphasis on program integration, following changes in AGRA's organizational strategy. This shift in strategy was relevant as many of the smallholder farmers needed pre-harvest and production assistance in order to improve yields and enable access to markets.
- In terms of intervention design, feasibility assessments were not consistently conducted prior to designing and implementing individual projects, thereby potentially limiting project relevance to beneficiaries. For example, had these assessments been completed, it is likely that AGRA and project partners would have realized earlier on that beneficiaries required assistance in improving production. This would have provided AGRA the foresight necessary to better integrate with AGRA's other projects that had previously addressed production.
- The evaluation team created a model of smallholder farmers' needs to enable them to participate in markets, and found that the activities were relevant to beneficiary needs. Many of these needs were addressed through AGRA's integrated interventions; indeed, even those needs which were not explicitly targeted were addressed.
- There were two key assumptions underlying MAP's theory of change which did not hold, thereby limiting the relevance of specific interventions. Firstly, stimulating demand for alternative uses of food crops was not relevant, as few of the smallholder farmers produced sufficient yields to be competitive in this area. Secondly, the relevance of warehouse receipting was limited in part due to policy and regulatory environments, as well as constraints faced by smallholder farmers.
- While MAP applied relevant selection criteria in identifying partners, some partners noted that a wider range of types organizations should have been engaged as most of the partners were NGOs. That is, some partners noted that more government and private sector partners should have been engaged as these organizations tend to have a more sustained presence in countries. This would also support sustainability of outcomes post-intervention.
- Finally, partners explained that the consortium approach was relevant in implementing projects as consortium members could come together to address a wider ambit of needs and constraints. However, partners noted that working as part of a consortium requires considerable time to manage and that further support should be provided to enable partners to more effectively work together.

5.2. EFFICIENCY

- AGRA's selection of partners for MAP has been efficient given the program strategy as well as changes to AGRA's strategy over the course of the program. Partners were selected either on the basis of a semi-competitive bidding process or through direct solicitation based on previous experiences with AGRA. This approach balanced the need for competition with the need for suitably qualified candidates and the potential for enhanced impact through repeat interactions.
- Grant and budget management was conducted efficiently and was adaptive to the needs of the partners when challenges arose. Overall, funds were generally well-managed by partners and were used efficiently to produce the outputs reported.
- The partners' engagements and experiences with the MAP team were mixed. Certain partners reported a lack of clarity about who their point person was within the AGRA team and MAP staff turnover meant that there was a lack of continuity when it came to AGRA's input into and knowledge of certain projects, which was disruptive to implementation. Furthermore, communication within the AGRA teams responsible for

integrated projects appeared to be somewhat lacking due to the siloed nature of the organization, with partners reporting that they would receive multiple requests for the same project reports from different AGRA staff members. This is because program officers would be drawn from several different programs and would not liaise with each other on a regular basis.

- The performance of MAP with respect to monitoring and reporting was mixed. The in-person monitoring support provided by the MAP program officers was found to be sufficient and the training on monitoring and financial reporting was found to be useful. However, the lack of formally tracked monitoring data is concerning and suggests that this function could have been done better by both partners and AGRA alike. Furthermore, the M&E budget component of the grants was insufficient for a number of partners, who reported that they had to subsidize this function from other parts of their businesses.
- The three-year project timeframe was too short for partners to effectively and efficiently implement or track progress, and did not allow enough time to get a sense of the early indications of sustained impact.

5.3. EFFECTIVENESS

- Where possible, achievement against targets were assessed based on the data available. However, due to limitations in the program data provided, the evaluation team was not able to quantitatively assess achievement against targets for most of MAP's objectives. As a result, the evaluation team has provided a qualitative assessment of factors contributing to, or detracting from, MAP's achievement of objectives.
- Many of the factors influencing from the achievement of objectives were informed by the reality of the targeted beneficiaries. As discussed in the Relevance section above, many of the smallholder farmers supported through the program were subsistence-based farmers, selling their production only when surplus was available. The effect of this reality informed achievement of objectives in a number of ways; for instance, limited production inhibited beneficiaries' ability to participate in more advanced stages of structured trading systems, such as warehouse receipt systems and commodity exchanges, and also limited their competitiveness in selling to industry for alternative uses of food crops. These factors undermined the achievement of objectives in reducing transaction costs and increasing demand for food staples through alternative uses.
- Working in consortium was both a success driver and a challenge; for those partners who identified and managed the key factors that drive successful partnerships, working in consortium was beneficial. However, some partners explained that working in consortium effected their implementation timelines and achievement of objectives.
- Restrictive timelines were the second internal challenge informing the achievement of objectives, as project partners noted insufficient timelines for effectively and sustainably enhancing smallholder farmers' access to markets.
- Considering external factors informing objectives, these included government intervention in agriculture markets which affected the price of food staples; climate shocks which limited smallholder farmers' production; limited access finance which inhibited beneficiaries' access to mechanization and equipment; as well as donor crowding in intervention areas which undermined beneficiaries' willingness to pay for goods and services. While these external factors are beyond the control of AGRA or partners, there is enabling environment work which can be done to mitigate these risks.
- In terms of gender mainstreaming, the evaluation team found limited effectiveness in integrating gender into the program's implementation. There is limited evidence to indicate that the specific needs of women

beneficiaries were properly scoped and accounted for, and few partners were required to report on gender reach targets or gender-disaggregated data. While two partners were promised a gender specialist role for their respective projects, this support did not materialize.

- MAP's evolving emphasis on integration during program implementation enhanced the program's effectiveness in reaching objectives. Partners who were implementing integrated projects noted the power of integrated programming in terms of being responsive to beneficiary needs. Increasing integration also supported knowledge sharing within AGRA as program teams became less siloed.
- Finally, while partners noted varying levels of support from AGRA in terms of capacity building, all partners noted that the support received was helpful in assisting them to successfully implement their project and navigate grant agreements.

5.4. IMPACT

- At the beneficiary-level, MAP is considered to have contributed to impact at the farmer-level such as improved access to markets through linkages to different types of buyers; increased commitment of farmers to partake in collective marketing through aggregation; access to finance; increased yields and a decrease in post-harvest losses.
- MAP activities have also improved the capacity of value chain actors such as farmer organizations and processors to work with smallholder farmers.
- Through the program's integrated approach, MAP has provided end-to-end solutions that meet the needs of smallholder farmers. As a result, MAP has contributed to an improvement in self-reported farmer economic welfare. The increase in income is reported to have resulted in increased ability to pay for fees and emergencies, make incremental housing improvements, and acquire assets.
- In all MAP countries, efforts have been made to establish structured trade systems with the aim of addressing the inherent market challenges that smallholder farmers face. However, the effectiveness and potential impact of this is stunted by the presence of barriers such as the lack of a supportive regulatory environment and inconsistency in the quality and quantity of produce aggregated by farmers.
- The program is reported to have had a positive impact on women beneficiaries. Women shared that through MAP, they are more empowered as project activities influenced their farming activities and role in the household. This increase in income has contributed to improved financial independence, a reduction in the time spent in the farm and improved the overall household environment.

5.5. SUSTAINABILITY

- While the design of MAP was relevant as it was holistic and addressed the needs of the farmers (improving productivity, reducing post-harvest losses and increasing access to markets), the majority of the partners that MAP has largely worked with are NPOs and NGOs, making the sustainability of the MAP-supported projects is mixed across the portfolio. Depending on the effectiveness of the exit strategies implemented, the systems and/or linkages developed during implementation have continued where a partner was able to source additional funding or work with the government.
- There is minimal evidence of scalability and sustainability of MAP's not-for-profit partners, as many of the operational costs, that the beneficiaries were reliant on, were covered by MAP's funding

- Although MAP also implemented projects through for-profit organizations such as IMAGE-AD, there is limited evidence to suggest that the AMSCA project was commercially sustainable. Where IMAGE-AD worked with private organizations such as Weirco, International Fertilizer Development Center (IFDC) there has been continuation and development of products such as M&E systems and online market access for farmers. However, the project was not effective where IMAGE-AD worked with NGOs to offer products and services to farmers and warehouse operators as there is limited buy-in and willingness to invest in the solution by value chain actors in the agricultural sector, post-MAP funding.
- At the beneficiary-level, there is evidence that the impact achieved under MAP is likely to be sustained should beneficiaries maintain what they have been taught under MAP. However, it is too early to tell the extent to which beneficiaries will maintain these activities in the long-term.
- At the policy-level, there is a strong potential role for AGRA to continue playing in developing the ecosystem to promote market access for smallholder farmers, particularly within the regulatory and policy making space. Structured trading systems in the countries of focus still require support from development actors to enable their development until they can do so organically.
- Finally, while the program had some impact as a result of MAP's approach to promoting market access for smallholder farmers, there are still barriers in the ecosystem that have limited the extent to which MAP could achieve its set outcomes or sustain the impact achieved. AGRA is in a unique position to continue working to change the perception of ecosystem players to provide a business for various value chain actors to work in the promotion of market access to smallholder farmers.
- MAP's use of an integrated approach to programming has facilitated partnerships across the sector to implement end-to-end solutions to address the needs of smallholder farmers and value chain actors.

5.6. RESPONSE TO THE MID-TERM EVALUATION RECOMMENDATIONS

Based on the conclusions detailed above, this section provides a response to the recommendations from the mid-term evaluation of MAP, conducted in 2015 by Dalberg Global Development Advisors.

Table 11: Responses to the MTE recommendations

MTE recommendation	End of program evaluation response
<p>Continue investing in market access interventions. Not only has the MAP demonstrated strong overall performance, but the improvements in post-harvest practices, income from agriculture, and value addition seen at the farmer level across different grantee projects has exceeded expectations.</p>	<p>The MAP has indeed continued to invest in market access interventions, and these more recent interventions have also proven to lead to improvements in post-harvest practices and income from agriculture.</p>
<p>Implement a holistic approach to addressing all the issues from farm to buyer for all grantee projects. Conceptually, this idea has driven the MAP strategy, but it needs to be implemented at the level of all grantee projects. This can be done primarily through conducting in-depth feasibility assessments prior to project design to ensure that the project is built comprehensively. In particular, we recommend that the strategies around the</p>	<p>AGRA's integrated approach to programming, introduced during the later stages of MAP, has to some extent addressed this recommendation, as by including support to the farmers across all stages of the value chain, AGRA is able to provide holistic support from farm to buyer. However, the recommendation of conducting in-depth feasibility assessments prior to project design has not been implemented. As found in this end of program evaluation, while scoping exercises were undertaken for</p>

MTE recommendation	End of program evaluation response
<p>following project elements be rigorously reviewed prior to approving a proposal:</p> <ul style="list-style-type: none"> • Market demand for type of crop that grantee focuses on • Presence / capacity of complementing actors to support grantee’s activities • Adequate value proposition and incentives for farmers and market actors to engage • Appropriateness of timing and sequencing of activities 	<p>hypothesis testing during the program business planning process, it appears that feasibility assessments were not consistently conducted prior to designing and implementing individual projects. The lack of these types of feasibility assessments potentially limits the relevance of the project, since if the four categories listed in the mid-term evaluation recommendation (market demand, presence of complementing actors, adequate value proposition, and adequateness of timing) are not in place, the anticipated project logic could fail.</p>
<p>Continue to pursue a flexible approach in grant management. The conditions, stakeholders and available products in agricultural markets are ever changing. While business plans are valuable in guiding strategy and plans for engagement, following a business plan in disregard of new information or changing market conditions can lead to project failure. The MAP’s flexibility in grant management has allowed grantees to adjust the planned course of action and, in turn, yield better outcomes. For example, CGA was able to engage other actors to work on improving farm production practices after realizing that production was too low for their project to be impactful. Allowing grantees to adjust their activities from the proposal when necessary is an element of the program management that should be maintained, and if possible, formalized.</p>	<p>This evaluation has come to similar conclusions regarding grant management; hence, we can conclude that the MAP has indeed adhered to this recommendation. The biannual and annual disbursements were found to be supportive of effective implementation and AGRA’s flexibility with respect to budget adjustments provided partners with the flexibility to adapt to changing circumstances on the ground. An example from the end of program evaluation was the ability of TechnoServe, with the approval of AGRA, to shift excess funds from one budget line, where money was saved, to another, which enabled them to purchase additional equipment for a farmer organization they were supporting under the MAP grant. This equipment enabled the farmer organisation greater ability to process soya for the production of soya derivatives such as soya flour, soya milk, soya bread, and soya cakes.</p>
<p>Invest in building the capacity and performance of grantee organizations. The MAP has been quite successful in identifying organizations able to implement projects with strong outputs and high potential for impact. As AGRA continues to intervene in this space, we recommend that further investments be made to strengthen these organizations and their performance beyond the technical and financial support currently being provided. To pursue a balanced and holistic approach to market development, AGRA could consider addressing both supply-side (farmers) and demand-side (buyers) challenges through its grants. While the majority of projects focused on strengthening the capacities of farmers and farmer organizations to engage effectively with markets, inadequate linkages to institutional buyers and limited absorptive capacity of SMEs inhibited the achievement of key outcomes. Developing closer coordination or considering targeted, direct support to SMEs, private sector off-takers and other institutional buyers could improve market outlets for farmers. Depending on the level of engagement determined in the updated AGRA strategy, the portfolio performance can be improved in any combination of the following ways:</p>	<p>The MAP has somewhat addressed this recommendation, although there is still room for additional support in this regard. Since the mid-term evaluation, the MAP has made additional investments into supporting business development services for SMEs to improve their absorptive capacity and connecting farmers/farmer organisations to larger institutional buyers. However, this did not take the form of direct support, as suggested by this recommendation, and there is still room for AGRA to grow in terms of the four strategies suggested, particularly with respect to providing opportunities for the grantees to share what they have learned and to work with other donor-led programs focused on improving market access. As AGRA moves forward with the integrated strategy, AGRA should consider building on or coordinating with other donor interventions that are targeting beneficiaries in the region with similar objectives and may offer synergies with respect to demand-side support.</p>

MTE recommendation	End of program evaluation response
<ul style="list-style-type: none"> • Further investment in capacity building sessions for grantees to share learnings about what has worked in the past for a given project type or market context • Deeper engagement on the part of Program Officers to help grantees build partnerships and linkages to market • Continued partnership with other donor-led programs focused on improving market access (e.g., USAID SAIOMA) • Additional investments to strengthen market linkages and conditions (e.g. challenge fund for buyers to link to smallholders). 	
<p>Provide targeted technical or financial assistance to tackle challenges with markets infrastructure to remove the bottlenecks to systems change. MAP projects have been affected by a myriad of market infrastructure-related challenges, such as poor transport systems, storage facilities, and financial systems. These factors have a direct impact on the achievement of outcomes. For MIRUKU in Mozambique for example, the steep collateral requirements of financial institutions and the inability of SMEs to meet these requirements limited the number of SMEs able to receive loans despite strong performance by MIRUKU in providing business development services to the SMEs. Where gaps or infrastructure constraints exist in the market, MAP can consider providing technical or financial assistance to market actors that may be able to help clear barriers for grantees. In the case of MIRUKU, MAP could complement the organization’s work by funding another grantee to facilitate access to collateral for SMEs.</p>	<p>While MAP was not a market systems development program in the true sense, the program did address some market bottlenecks through their support for the development of WRS, ICT systems and development of aggregation centres. However, this support was piecemeal as MAP took an interventional approach, and did not seek to address some of the broader bottlenecks in the system such as infrastructure, logistics and financial services. This recommendation was therefore only partially addressed as, following the mid-term evaluation, the MAP continued to focus predominantly on providing support to farmers / farmer organisations, and did not provide technical or financial assistance to other market actors to help clear barriers for grantees.</p>
<p>Streamline the reporting processes for integrated AGRA grants to better track results. MAP’s high level of integration with other AGRA programs is a major strength. Integrated grants offer opportunities to leverage the resources and capabilities of AGRA as a whole to provide solutions across the value chain. However, presently, the reporting structure for such projects is not adequately coordinated given the unclear reporting lines and monitoring metrics. This makes it challenging for MAP to obtain a full picture of its work and impact. For example, there is limited attribution for or tracking of MAP’s activities in policy advocacy in program documents. In the course of its regular programming, MAP has identified critical policy barriers that it has relayed to the Policy team, which then implements policy projects. In Tanzania, after export restrictions constrained grantees from pursuing WRS, and MAP grantees were unable to push forward with planned activities, MAP collaborated with Policy on a solution. This level of collaboration, as well as the financing that MAP has</p>	<p>This recommendation was not addressed between the mid-term evaluation and the end of program evaluation. This evaluation found that reporting for the integrated projects was still not streamlined and many partners reported uncertainty about who their point of contact was within the AGRA team, as well as reporting that they received multiple requests for the same reports by AGRA team members, particularly in the more integrated projects. This was put down to the siloed nature of the organisation and it was reported by AGRA that this would be addressed in their future integrated programming by assigning a point person to liaise with partners. Furthermore, at the time of the end of program evaluation, there was still limited monitoring of MAP’s activities in policy advocacy, despite the importance of this in ensuring that the bottlenecks to systems change are removed.</p>

MTE recommendation	End of program evaluation response
provided to Policy and other AGRA programs, is largely untracked in the MAP program documents. A streamlined reporting system for integrated projects can create opportunities for MAP to further highlight successes and learn from challenges.	

6. RECOMMENDATIONS

Genesis is aware that many lessons learned from MAP as well as other AGRA legacy programs have already been used to inform the development of the 2017-2021 AGRA strategy. However, we suggest that AGRA also consider and adopt the following recommendations for future markets work, which were developed based on the findings and analysis of this evaluation:

- AGRA should continue to emphasize integrated programming.** Given the multidimensional nature of challenges faced by smallholder farmers, integrated programming addressing challenges across the value chain is extremely important to ensure effective and impactful interventions. Integration thus forms a key component of the new AGRA strategy. Ideally, integration should start at the design stage before the grants are even awarded – AGRA is able to insert clauses in its call for concept notes/proposals that mandates new programs to consult and align proposed activities with existing or previous AGRA-funded interventions. Additionally, AGRA could also build on or coordinate with other interventions they know of that are implemented by other organizations and targeting beneficiaries in the region with similar objectives.
- Provide additional support to consortia to facilitate cooperation of members and enhance the effectiveness of joint implementation.** A number of findings emerged from this evaluation regarding the consortia under MAP as well as the consortia that MAP partners are currently involved in under new AGRA projects. While a consortia approach is considered important for integrated interventions, there are also a number of challenges associated with this approach. Most notably, partners reported that consortia leaders should be given sufficient clout to manage underperforming consortium members who might influence the ability of other consortium members to implement effectively. Relevant guidance and support that AGRA could provide would include establishing clear roles and accountabilities, training on joint monitoring and reporting, as well as guidance on contingency planning and risk management in the event that one or multiple member(s) of a consortium underperform.
- Conduct feasibility assessments prior to project implementation to identify the needs and constraints faced by target beneficiaries.** Many of the factors limiting the relevance and effectiveness of projects were related to incorrect targeting of beneficiaries, such as those who were in need of pre-harvest and production support before they could achieve the yields necessary to access markets. Segmenting the smallholder farmers based on their level of development would also ensure that farmer organizations receive support that is commensurate with their stage of development, in terms of subsistence-based versus commercially-oriented smallholder farmers. Furthermore, the specific activities should be relevant given the policy and regulatory environment in country contexts. This is particularly important in situations where AGRA's objective is to facilitate improved structured trading systems such as WRS. As documented in this report, there needs to be an enabling environment for these types of systems in order to succeed at scale. This recommendation is similar to one put forward in the mid-term evaluation of MAP, which emphasized that AGRA should conduct feasibility assessments prior to project design in order to ensure comprehensiveness of funded projects.

- **Increase the length of the grants to five years.** Given that many agricultural projects encounter climate- and policy-related challenges that are beyond the control of the implementing partner, three years is often insufficient time to implement effectively. This is because partners may lose one or two of the harvests and be unable to implement planned activities appropriately. Furthermore, many partners require time at the beginning of a project to ramp up, establish their teams or sensitize the beneficiaries, which means that partners may also not be able to fully implement planned project activities in the first year. Lastly, three years is also insufficient to effectively monitor and track progress at the outcome and impact level. AGRA should therefore consider increasing the length of their grants to take place over a five-year period, instead of three years, to give partners enough time to both implement effectively, track progress and realize the outcomes of their interventions. Given that most AGRA grants are provided under larger umbrella grants that typically last five years to fully encompass the grants within, extending the length of the grants issued by AGRA would mean that AGRA should also consider negotiating longer umbrella grants (perhaps seven years) with their funders.
- **Ensure consistent and comprehensive indicator tracking across all interventions for aggregate reporting.** A finding from this evaluation is the inconsistent intervention-level and aggregated monitoring data for the program. Genesis notes that the IPTTs were first implemented during the later stages of the program and are now being implemented across all AGRA programs; however, when provided with aggregated monitoring data for the program as a whole, it emerged that a number of the indicators were inconsistent with the agreed milestones in the proposal, making it difficult to draw conclusions on the programs achievements against intended objectives. Should AGRA need to report on how multiple interventions contribute to overall programmatic objectives, headline indicators for each intervention need to be aligned and these need to feed into an aggregate database from which AGRA can draw overall conclusions on the indicators in question.
- **Establish country level targets.** While many of the activities and associated indicators are relevant in each country context, the potential scale may differ by the opportunities and constraints in each country. To accurately assess each country's achievement against targets, and compare contribution to the overall results achieved, it is important to include annual and total targets for each country.
- **Be intentional about gender mainstreaming in the design of future programs.** This evaluation has found that, although it was indicated in the MAP proposal to Bill and Melinda Gates Foundation that AGRA would seek to address challenges specific to women in agriculture and create opportunities to empower women in agriculture, this intention was not explicit in the design of MAP interventions. Should AGRA wish to specifically target challenges related to women in agriculture, AGRA or project partners should conduct thorough assessments of the current gender dynamics in project locations and include activities in the intervention that both implicitly and explicitly address these issues. Furthermore, there should be indicators assigned to these activities that explicitly track progress against gender-specific targets which partners should be required to report on. AGRA has advised that a gender advisor has been appointed and will be responsible for this going forward under the new strategy.
- **Implementation partner selection should mirror AGRA's market systems ethos.** Under MAP, most of AGRA's grantees were NGOs whose approach and ethos is at variance with AGRA's systemic approach to smallholder farmer development. The negative effect of this is that most projects did not deliberately have an exit strategy post AGRA funding because a number of these organizations ordinarily implement projects where they intervene directly in value chains, as opposed to facilitating permanent actors to better perform their functions. In future programming, AGRA must insist on a clear pathway to sustainability post-AGRA funding as well as evidence of facilitating activities through permanent value chains actors. AGRA has advised that a blended approach is now in place where private sector partners form part of the consortia.

- **Emphasize value unlocked as opposed to numbers of beneficiaries reached.** AGRA must take the lead in convincing donors that within a market systems context, chasing numbers often becomes a tick box exercise, which is divorced from market realities. In this vein, emphasizing value unlocked by AGRA interventions, in addition to numbers, makes more sense as value chains can only accommodate so many smallholders; processors or retailers.

APPENDIX 1: PARTNER PROFILES

KENYA: EAST AFRICAN GRAIN COUNCIL

Overview of the project

Grant value: USD 500 000

The East African Grain Council (EAGC) is a regional membership-based organization established in 2006 due to the existing needs within the three stages of the grain value chain; production, trading, and processing. EAGC launched the Enhancing Inclusive Grain Supply Chain in Kenya as the second phase of the first project that aimed to strengthen WRS. Given the gaps in the first phase, the second phase of the project aimed to strengthen smallholder farmers integration into the grain value chain supporting them to establish and operate aggregation centers for collective marketing. The anticipated result was to realize increased incomes and financial inclusivity to smallholder farmers. The key targets of the project were:

- Create linkages between farmers and aggregation centers and the grain trading companies;
- Promote the adoption of best practice post-harvest handling techniques/technologies; and,
- Increase capacity utilization and certification of warehouses.

Additionally, the program set to link warehouses with financial institutions that could provide financing for the receipting system. This project is in line with the MAP's focus on supporting collective farmer market channels and supporting the capacity of businesses in agriculture to provide input and output services to farmers.

Project performance

The table below provides a summary of key indicators:³⁸

Table 12: EAGC performance against targets

Indicator	Target	Actual	Achieved
Warehouses certified to operate WRS	20	21	●
Warehouses established and conforming to EAC standards	90	127	●
Price gain to farmers at farmgate in %	15%	15%	●
Number of farmers accessing credit through WRS	3 940	1 098	●
Value of credit received by farmers through WRS	253 000 000	106 237 500	●
Volume of produce aggregated through the WRS system	49 748	15 056	●

³⁸ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Smallholder farmers trained in post-harvest handling, storage and quality standards	20 000	27 638	
Volume of produce aggregated by farmers (MT)	185 697	32 118	
Number of trade-linkage forums conducted	9	11	
Number of grain buyers identified	30	44	
Farmers mobilized to market grain through the grain aggregation	71 617	30 318	
Number of Smallholder farmers trained in post-harvest handling to attain new EAC standards	40 000	29 309	

Key implementation successes and challenges

EAGC was successful in supporting the G-Soko online trading platform which although in its infancy stages has enabled one of the certified warehouses to trade about 30 MT of grain on the system. This grain was aggregated by 631 farmers in five farmer organizations. Farmer organization leaders also noted that they used this system to scout the market prices in different parts of the country before making their selling decisions with buyers. EAGC has also established and certified 127 warehouses which have reduced the transaction cost for farmers selling their produce to the markets and increases the farmgate prices of produce due to collective marketing power.

A key challenge in the program implementation was government interference and market distortions which affected the relevance of warehouses and the receipt systems. However, EAGC is still working on this to ensure that the right policies and structure are in place to support WRS in the region. Another challenge to tracking the impact of the project was the project did not have consistent support in conducting needs assessments and impact surveys every year. Given that the EAGC's work commenced in 2007, there could be transformation that has taken place since the initial program that was not documented. It would be beneficial to the partner if subsequent evaluations were conducted a few years down the line since impact sometimes is only realized after a few years. The project was not able to effectively monitor the progress and impacts that it has had on its beneficiaries.

Impact and sustainability

There has been high adoption of post-harvest technologies that create efficiency for farmers through equipment such as shellers and tarpaulins. The farmer organizations have used this equipment for income generation through hiring out the shellers and tarps to the broader community.

To promote the sustainability of farmer groups since the program ended, EAGC has created 'grain hubs' which are one-stop-shops for groups to buy inputs at wholesale prices, access agronomic advice, and get group management support. A key risk to sustainability of accessing finance through WRS is government interference in cereal market prices and the slow policy-making process that is not up to par with changes in the ecosystem.

KENYA: AGMARK

Overview of the project

Grant value: USD 1 279 383

Agricultural Market Development Trust (AGMARK), in partnership with Cereal Growers Association (CGA) and Co-op Consultancy Insurance Agency (CCIA), implemented the SAIOMA project in Meru, Tharaka Nithi, Machakos and Kitui. AGMARK is a regional organization with programs running in 16 countries in East and Southern Africa to improve incomes and food farmer organization that aims to address the challenges facing of smallholder farmers in Africa. CGA, as part of the consortium, is a national member-based farmer organization that aims to address the challenges facing cereal farmers in Kenya. CCIA specializes in the strengthening of farmer-based organizations to turn them into sustainable ventures by provision of management and leadership training. The project sought to address:

- The inadequate access to inputs markets and low agricultural productivity;
- The access to output markets by smallholder farmers; and,
- The niche in strengthening the management capacity of Farmer Based Organizations (FBOs) to serve their members.

The consortium, led by AGMARK, which also aimed to train farmers on financial literacy and improve the participation and benefit of women and youth in the agricultural sector, focused on four staple crops; sorghum, cowpeas, pigeon peas and green grams.

The project developed two models to guide in strengthening the capacity of agro-dealers to provide quality inputs, and to facilitate access to markets after harvest. AGMARK's project is in line with MAP's theory of change through its support to enterprises that not only provide inputs but also are an avenue for market access for smallholder farmers.

Project performance

The table below provides a summary of key indicators:³⁹

Table 13: AGMARK performance against targets

Indicator	Target	Actual	Achieved
Number of agro-dealer hubs developed	5	13	
Number of agro-dealers accessing credit from commercial banks	7	55	
Volume of agricultural produce marketed (MT)	15 000	14 211	
Value of incremental sales (collected at farm-level) attributed to FTF implementation (FTF)	4 680 000	10 561 717	

³⁹ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Percentage change in post-harvest losses	11%	3%	
Total increase in installed storage capacity – (m3) (FTF)	1 800	4 250	
Percent of smallholder farmers adopting improved post-harvest storage practices	65%	69%	
Number of farmers trained in improved post-harvest management practices	30 000	31 312	
Number of improved storage facilities constructed/rehabilitated by project per year	30	30	
Number of farmers involved in produce aggregation for contract sales	30 000	3 974	
Number of MSMEs, including farmers, receiving USG assistance to access loans. (FTF)	15	219	

Key implementation successes and challenges

A key success of the project was that financial literacy program was able to reach more than 22 000 farmers from 1 000 farmer groups across the program region. Additionally, the project trained 100% of the targeted aggregation centers and was able to aggregate and sell 14 200 MT against a target of 15 000 MT.

The project was not able to achieve much impact in Eastern Kenya due to the short program duration of three years and was only able to scratch the surface of existing market issues in the region. This was evidenced in that out of a target of having 30 000 farmers aggregating their produce for contract sales, the project was only able to achieve 4 000 farmers aggregating. Multiple external factors such as drought in one of the regions, revision of excise duty on sorghum leading to market collapse, and levies by the county government, affected the quantity of grain aggregated by project. This however did not affect the overall benefit of the program to the farmer since farmer groups were individually selling to markets.

Impact and sustainability

The AGMARK-led consortium project was very successful in Tharaka Nithi where the aggregation centers became very successful and started supplying to breweries. Additionally, the agro-dealers that were supported to start-up and/or manage their businesses are still running even after the program ended hence this will potentially be a long-lasting impact of the project.

The team also noted that the financial literacy training conducted was different from other touch-and-go training modules in that it was a curriculum that took place over a few weeks. This ensured that the training was rigorous hence a higher likelihood of farmers recalling issues they have been educated on. AGMARK and CGA have developed a good working relationship with CCIA, which allows for further cooperation in the field when the partners go for additional farmer trainings not part of the project.

Risks to the sustainability of the outcomes witnessed by the project include: climate change resulting in disrupted planting seasons and decreased rainfall hence affecting the amount produced; the short time period of project implementation which did not allow the team to establish farmer groups and guide them to create cooperatives yet some had expressed the desire to morph into one; and, development of tailored M&E processes to track the impact of projects within the same region from different funding periods.

KENYA: FARM CONCERN INTERNATIONAL

Overview of the project

Grant value: USD 975 204

Farm Concern International (FCI) implemented the Cassava Village Processing Initiative in Kenya and Tanzania. The three-year programme aimed to impact the socio-economic welfare of smallholder farmers through cassava commercialization, market access and trade through the Commercial Village Model and Village Processing. This would also improve food security and promote the graduation of cassava into a mainstream commodity in food, feeds and starch industrial markets. The following activities were implemented as part of the program:

- Strengthening the capacity and efficiency of farmer organizations to inclusively produce and market collectively through commercial villages;
- Promotion of the use of agronomic best practices and quality inputs for increased market-led cassava and sweet potatoes production; and,
- Linkage of cassava and sweet potato smallholder farmers to markets.

The project is aligned with the MAP archetypes and the objectives within its theory of change through its promotion and support of collective marketing and value addition of produce.

Project performance

The table below provides a summary of key achievements in both countries of implementation:⁴⁰

Table 14: FCI performance against targets

Indicator	Target	Actual	Achieved
Volume of market sales per household (MT)	14.4	8.77	●
Number of commercial villages established, provided with BDS and linked to value chain actors	40	28	●
Number of farmers that have membership in commercial villages	10 000	4 432	●
Volume of produce sold to companies and wholes buyers using cassava for food use (MT)	26 680	7 990	●
Value of produced cassava sold to companies and wholesale buyers using cassava for food use (\$)	6 296 249	14 800 330	●
Number of Commercial villages trained value addition technologies and development of nutritious blended	40	24	●

⁴⁰ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Key implementation successes and challenges

A lot of farmers initially trained on GAP were not able to access high quality seeds that are demanded by processors and other markets. Through this initiative, FCI's enhanced Commercial Village Savings Schemes which helps farmers to purchase cuttings and vines collectively using their savings, provided 607 536 000 cuttings and 150 139 255 vines of improved varieties of cassava and sweet potato to farmers in the program sites. As a result, 1 253 043 and 202 251 metric tons of cassava and sweet potato fresh roots were produced by the Commercial Villages.

The team noted that the cassava market is not well developed hence a lot of the trading was conducted in informal markets. This hindered the achievement of the volumes and value of crop traded over the lifetime of the program. Despite this, the program was able to train on value addition and develop nutritious blends for more than 50% of the targeted 40 commercial villages.

Impact and sustainability

The program has changed the perception of cassava as a 'poor-man's' food due to the financial benefit farmers have achieved within the program areas. The key to sustainability of the program was the local buy-in of local leaders which meant that community members were able to join the villages and aggregate and add value to their produce. The commercial villages also have long-term plans which are created through participatory approached resulting in higher community buy-in.

Despite the impacts in perceptions of cassava and sweet potatoes and the amount traded, there still exists a lot of work to be done in formalizing the trading platforms to create demand for the product from the farmers. Environmental factors such as pest and diseases and climate change especially in eastern Kenya, have affected the amount and quality of produce due to prolonged dry seasons. Without a long-term water supply programme, the initiative could collapse since farmers have lost their crops in previous seasons.

GHANA: GHANA GRAIN COUNCIL

Overview of the program

Grant value: USD 777 662

The Ghana Warehouse Receipt Promotion Project (G-WARP) was implemented by the GGC between 2013 and 2016. The primary objective of the project was to transform rural livelihoods through the promotion and development of the WRS in Ghana. To achieve this objective, the GGC implemented the following activities:

- Identify a warehouse operator to build and manage a 500MT capacity warehouse;
- Identify and train warehouse operators for standards training to manage GGC-certified warehouses;
- Build ecosystem actors' capacity to understand and participate in warehouse receipting;
- Train warehouse operators, grain traders, producers and processors on standards and quality assurance; and
- Train warehouse operators on operational risks and mitigation methods.

Given the nascence of warehouse receipting in Ghana, these activities were necessary to ensure that all relevant stakeholders were sensitized on the use and management of warehouse receipting.

The G-WARP project fit within the MAP's market development archetype and is consistent with the objectives of the program by supporting storage, structured trade, and access to finance for smallholder farmers.

Project performance

The table below provides a summary of key indicators:⁴¹

Table 15: GGC performance against targets

Indicator	Target	Actual	Achieved
Volume of grains aggregated and sold through GGC certified warehouses (MT)	12 000	30 710.65	●
Number of warehouse operators and staff trained	60	202	●
Number of trainers or trainees	60	103	●
Number of farmers trained in warehouse receipting	7 150	7 251	●
Number of fora attended to reach out to actors in the grains value chain	26	29	●

⁴¹ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Number of farmers, processors and traders trained on quality standards	7 000	7 014	
Number of awareness workshops on WRS with financial and insurance institutions	6	24	
Number of linkages formed between financial/insurance firms and certified warehouses	6	9	
Number of trainings of trainers on price data uses	8	8	

Key implementation successes and challenges

The key notable success emphasized by the GGC team is that they have shown that, technically, warehouse receipting is possible. However, the team noted a number of challenges in developing this system. The first challenge is external, and is related to a weak enabling environment for WRS in Ghana. For instance, current regulations preclude community warehouses from participating in the WRS because receipts must be registered through a bank. However, many community warehouses are not able to do so due to bank restrictions.

The team also noted technical challenges. As maize is a low value crop, GGC emphasized that large installed capacity is necessary in order to have volumes that exceed variable costs. However, many of the community warehouses are not large enough to accommodate these volumes, and furthermore, are not able to obtain the necessary throughput from farmers. This increases the financial costs associated with running the warehouses.

Impact and sustainability

The GGC noted that they were successful in achieving two of their project objectives: increasing storage capacity and improving warehouse management. During the project, GGC added three new community warehouses during the lifetime of the project and worked with the Ghana Standard Authority to improve standards.

The project had less success in increasing the use of warehouse receipting, in part due to the challenges noted above, as well as due to the fact that smallholder farmers cannot afford transportation to the certified warehouses.

These challenges were also noted as risks to the sustainability of the achievements through the project. GGC also noted that insufficient grain drying facilities are also a weak link in the system which could undermine the functioning of the overall system.

To mitigate some of these challenges, the team noted that the warehouses could begin to accommodate other grain commodities.

GHANA: IMAGE-AD

Overview of the program

Grant value: USD 957 475

IMAGE-AD was awarded a three-year grant to develop a platform to link value chain actors and facilitate information flow and access to market for smallholder farmers using mobile phone technology.

The platform, mFarms, aimed to address the barriers preventing smallholder farmers from accessing markets. To do so, smallholder farmers are profiled on the platform. From there, the platform enables users along the value chain to track production, transactions, communicate market information, and extension monitoring, for example.

The IMAGE-AD team noted that, at the time that IMAGE-AD was awarded the grant from AGRA, there were few applications for agriculture in the market and the power of technology was not being sufficiently used to address market constraints. The mFarms platform aligned with the objectives of MAP as it provided access to market information for smallholder farmers and reduced transaction costs.

Project performance

Where possible, the table below provides a summary of key indicators:^{42,43}

Table 16: IMAGE-AD performance against targets

Indicator	Target	Actual	Achieved
Number of actors exchanging information through the platform	NA	2 001	-
Number of companies customized on platform in targeted countries	56	21	
Number of produce aggregators and value chain actors profiled	56	13 747	

Key implementation successes and challenges

One key success of the project was that the mFarms platform tracked both input and output prices. This was unique at the time, as the few other platforms that were available were only tracking output prices. This increased the usefulness of the platform.

A challenge was related to the cost of running the platform. Some of the services initially provided to farmers were discontinued as IMAGE-AD could not generate enough revenue to support the services. This is in part because farmers were not paying to access the platform. As a result, IMAGE-AD narrowed the range of services available to those which were sustainable.

Additionally, the team noted that aggregation efforts are not well managed from the farmer side. While the mFarms platform is used by large buyers, there have been many instances where the farmers were not able to

⁴² Reported figures in IMAGE-AD Narrative Report are aggregated across countries and therefore not easily extracted for Ghana. If provided disaggregated data, that evaluation team will update this table.

⁴³ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

meet the level of demand required by buyers, thereby requiring mFarms to service a smaller segment of the market.

Impact and sustainability

Through the mFarms platform, smallholder farmers and SMEs were able to access market information. However, the sustainability of the model as it was originally designed is questionable. Due to the financial challenges mentioned above, it is difficult for a private company to provide a free service. Additionally, some of the smaller SMEs engaged during KIIs noted that they are no longer using the IMAGE-AD system due to costs, as well as connectivity issues in remote areas.

GHANA: CONCERN UNIVERSAL⁴⁴

Overview of the program

Grant value: USD 852 669

The Development of Market Access and Post-harvest Services for smallholder farmers in Brong Ahafo Region (DMAPS plus) was implemented as an extension of the initial DMAPS project, which was implemented from 2012 to 2014. The extension of the initial phase of the project, which took place from 2015 to 2016, was to consolidate and deepen the gains achieved by value chain actors, primarily the assisted smallholder farmers and SMEs. Specifically, the project extension aimed to consolidate the systems and capacities for collective marketing and provision of post-harvest services to smallholder farmers; and to review, document and share lessons and approaches for collective action and post-harvest service provision. The specific activities included:

- Profiling and classification of FBOs;
- Refresher training of FBO marketing committees;
- Refresher training for smallholder farmers in post-harvest handling, quality and standards;
- Refurbishment and resourcing of aggregation centers;
- Capacity assessments of SMEs; and,
- BDS for SMEs

The project is consistent with the overall MAP theory of change due to its emphasis on strengthening farmer organizations' capacity for collective marketing as well as the support to SMEs to strengthen the demand side of the value chain.

Project performance

The table below provides a summary of the key indicators for the project in question:⁴⁵

Table 17: Concern Universal performance against targets

Indicator	Target	Actual	Achieved
Price gain over alternative channels	22%	29%	
SMEs receiving BDS support	7	5	
Number of SHFs selling collectively	2 500	2 536	
Volume of produce sold by famers aggregating (MT)	2 500	2 832	

⁴⁴ Now called United Purpose.

⁴⁵ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Value of produce sold by farmers aggregating (USD)	560 896,00	595 340,20	
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Key implementation successes and challenges

In terms of key successes, the Concern Universal team noted that the project achieved a 30% female participation rate, in comparison to the rate under the first phase of the project, which was 16%. While this may be viewed as negligible, the team explained that this was a considerable achievement due to gender barriers related to the crops of focus, where maize is predominantly farmed by men in the targeted regions.

A notable challenge that the team emphasized is related to the broader ecosystem in which the project is working. While the project is encouraging good agricultural and post-harvest practices, the team noted that when only 5 000 of the million farmers in the region are practicing new techniques and using new equipment, the broader environment can disincentivize their use. For instance, equipping aggregation centers with weigh scales may be ineffective when buyers are unwilling to purchase grains using scales. This was noted as a potential barrier to sustainable change in the region, and was corroborated by smallholder farmers engaged as part of the data collection process.

Impact and sustainability

The DMAPS Plus project managed to consolidate observed results from the initial DMAPS project. The Concern team noted that the project was effective in achieving the intended outcome, as they observed an increased number of smallholder farmers participating in structured trading. They also observed an increase in volumes and values of produce sold collectively.

While the project aimed to increase incomes for smallholder farmers, the Concern team noted that the sustainability of any observed changes is dependent on the extent to which the broader sector is functional and supportive of improved agricultural practices and quality standards. The team noted that they are working in this regard to improve national grain standards.

In spite of any ecosystem challenges, the interviewees noted that their organization has learned and improved based on experiences in DMAPS Plus. For instance, during the project, the team realized that access to finance is a missing link in the system. United Purpose is now aiming to build this into their ongoing programming to better served the needs of farmers.

The team also noted that they learned from the M&E systems implemented as part of the grant and that they are trying to learn from this system and where possible integrate these lessons in other donor-funded projects.

MOZAMBIQUE: ADEM

Overview of the project

Grant value: USD 250 000

ADEM has been involved in MAP since 2010, implementing its first project between 2011-2014. The particular project in question built on the previous project funded under MAP, and was focused on developing SMEs and entrepreneurial farmer organizations along the agricultural value chain in Tete Province. The three key objectives, and accompanying activities, of the project were:

1. To build and strengthen SMEs to better participate in input and output markets for small holder farmers
 - The main activities for this objective involved building partnerships between value chain actors as well as the business and entrepreneurial capacity building of various SMEs and entrepreneurial farmer organizations, at the Apex level to improve their operational capacity.
2. To enhance small holder farmers access to structured markets
 - Activities under this objective were focused on providing capacity building to farmer organizations and SMEs on post-harvest management, input and output marketing, aggregation, bulking and collective marketing, pricing, and warehouse/aggregation center management.
3. To strengthen the capacity of entrepreneurial farmer organization to improve delivery to members and enhance gender and youth participation
 - Activities to accomplish this objective included capacity building of Apex farmer organizations using the results of the Capacity Performance Index tool and training farmers to manage post-harvest losses. Farmers and farmer organizations were also linked with agro-dealers selling hybrid seeds and appropriate fertilizers.

Building on the previous project under MAP, incorporating lessons learned and aligning with the AGRA strategy at the time that was focused on catalyzing an agricultural transformation in key agro-ecological zones such as the Beira Agricultural Corridor, this project was well aligned to the MAP theory of change.

Project performance

The table below provides a summary of the key indicators for the project in question:⁴⁶

Table 18: ADEM performance against targets

Indicator	Target	Actual	Achieved
Objective 1: To strengthen a network of SMEs participating in input and output marketing and value addition of small holder farmers produce			
Volume of produce purchased by participating SMEs from smallholder farmers (MT)	60 800	62 426	
Quantity of improved seed sold through agro-dealers (MT)	90.4	37.7	

⁴⁶ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Amount of credit accessed by participating SMEs (USD)	106 000	47 861	
Quantity of improved fertilizer sold through agro-dealers (MT)	500	36.8	
Nr of SMEs participating in the input and output markets and value chain	51	179	
Objective 2: To enhance smallholder farmers' access to structured produce markets			
Value (USD) of produce sold through structured trading	10 415 000	11 403 933	
Number of SHF selling collectively	24 000	49 664	
Objective 3: To strengthen the capacity of farmer organizations to improve service delivery to their members			
Nr of Apex FO trained	20	21	
Nr of FO linked with service providers	50	65	
No. of Apex FOs with business plans	11	9	
No. of SHFs trained	16 000	12 813	
Number of supported Apex FOs accessing credit for members	11	1	
Amount of credit accessed by Apex FOs for members (USD)	350 000	9 090	
Number of farmers benefiting from credit	12 000	124	

Key implementation successes and challenges

ADEM reported that, while they did not meet all of their targets (as indicated above), the project was successful at addressing many of the constraints faced by farmers. One particular factor that contributed to the success of the project in terms of registering SMEs, was that at the time of the project, the government of Mozambique delegated that responsibility to the district governments. This made the process much easier than it was in the past and facilitated the key objective of the project, which was to strengthen SMEs to better participate in input and output markets for smallholder farmers.

There were, however, some challenges which limited the success of the project. One of the key issues is side selling. Many farmers do not want to participate in aggregation as they need to sell as soon as they harvest to meet immediate needs. The result is that they have very little left after consumption to store and aggregate⁴⁷, which in turn limits the ability of SMEs and farmer organizations to acquire sufficient volumes to sell to the bigger buyers. A further highlighted by ADEM is the prevalence of donors in the region and the donor dependence has been developed as a result. According to the project team, the donors all take different approaches to their interventions and many donate a lot of goods or services for free. This means that there is often an expectation from the beneficiaries that they will be given things, and when ADEM required the beneficiaries to contribute to the intervention in kind, this was met with reluctance.

⁴⁷ It was reported that farmers in the region tend to have only about 200kg of produce left after consumption for storage and aggregation. ADEM noted that for SMEs and farmer organizations to successfully access larger markets, they would need to receive at least a ton from each farmer.

Impact and sustainability

The project was successful at building the capacity of many SMEs and entrepreneurial organizations, and while some are functioning better than others, the groundwork has been laid for them to continue to grow and scale. At the end of the project, SMEs had purchased a volume of 62 426 MT produce from smallholder farmers, exceeding their target. The evaluation team met with one of the farmer organizations supported under MAP. This organization has successfully accessed finance from a bank, and received a loan of MZN 700 000 each year to purchase the produce from their members at harvest, store it and then sell in bulk to buyers when the price is higher. The organization learned a great deal through the program on governance and organizational management, and now displays on the walls of the center the volumes they trade every year as well as the price paid to farmers and sold to buyers. The purpose of this is to maintain transparency with the farmers, build trust and motivate each other to produce and sell more. They have had a number of repeat buyers and the margin that they make is used to cover the costs of storage and transportation. Furthermore, farmers that sell to the organization and that have benefitted from the farmer capacity building reported that they had been able to improve their houses, purchase assets and send their children to secondary school.

ADEM reported that the farmer organization in question is one of the better performing organizations that they have supported, but that a number of them are doing well. There are, however, risks associated with the sustainability of these outcomes. The key issue is access to finance, as indicated by the program's failure to meet targets associated with accessing credit. While the farmer organization in question has been able to access finance, this is not the case for all supported SMEs/farmer organizations, and even the farmer organization consulted reported that they are not able to access a large enough loan to purchase from all the farmers in the region. This limits them in terms of the volumes they are able to collect and sell, and means that side selling will remain an ongoing issue. Having access to a larger loan would enable them to purchase more from the farmers, and in turn given them greater leverage in price negotiations with buyers.

Ensuring that there are appropriate financial products available to SMEs and farmer organizations is thus essential to a well-functioning structured trading market.

MOZAMBIQUE: ADRA

Overview of the project

Grant value: USD 380 000

The 'Strengthening Ability of Farmer Organizations in Zambezia Province to Access Markets' (SAFOZA) project, implemented by ADRA aimed to sustainably increase sales margins and sales volumes of smallholder farmers through effective participation in formal markets. The project had two key objectives:

1. To improve capacity of farmer organizations to deliver better services to their members.
 - Activities included facilitating the formation and registration of farmer organizations; facilitating access to finance and market linkages with input vendors and produce buyers; and training of farmer organizations in organizational governance, leadership, and strategic management.
2. To improve smallholder farmers' access to structured output markets
 - Activities included training to improve postharvest storage, leadership and business skills; training in the use of mobile phone technology for timely access to market information; and rehabilitation and equipment of existing stores

ADRA developed the SAFOZA project as a continuation of the work they were doing previously with USAID. The project was developed using background information from government on the crops and yields coming out of particular districts, and the concentration of communities within the districts. ADRA identified potential districts for the USAID project, and SAFOZA was implemented in those districts that were not selected for that project but had similar challenges and needs.

Project performance

The table below provides a summary of the key indicators for the project in question:⁴⁸

Table 19: ADRA performance against targets

Indicator	Target	Actual	Achieved
Objective 1: To improve capacity of farmer organizations to deliver better service			
Number of FO's whose Capacity Performance Index for supporting FO's have improved.	173	124	
Number of supported FOs whose CPI is above 70%	104	77	
Number of FOs whose capacity has been assessed and added into the AGRA FOs database	288	266	
Number of FOs who have been reached by at least one capacity building intervention supported by FOSCA	288	290	
Number of FO members attending FOSCA supported project meetings/forums	9	0	
Number of FO's trained in organizational governance	288	304	

⁴⁸ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Number of FO's trained in leadership	288	303	
Number of FO's trained in strategic management	288	313	
Number of FO's with increased membership	173	135	
Number of FO's trained in Gender issues	288	295	
Number of community members who are part of a farmer associations	7 200	6 289	
Number of FO's whose women membership has increased	260	223	
Number of FO's who have set aside some slots for women in their management committees	115	131	
Percentage of target SHFs who are satisfied with the services offered by their FO	33.3	0	
Number of SHFs reached by at least one capacity building intervention supported by FOSCA (including training)	7 200	6 257	
Objective 2: To improve smallholder farmers access to structured output markets			
Percentage of post-harvest losses in-storage among SHFs using improved storage systems	15%	0	
Assessment Report concluded	1	1	
Number of existing storages rehabilitated	6	6	
Number of farmers trained in post-harvest handling	7 200	6 476	
Number of Farmers receiving training in post-harvest storage	7 200	7 047	
Number of farmers in targeted areas aggregating produce	7 200	6 488	
Number count of FOSCA supported FOs who are aggregating their members produce to sell collectively	230	267	
Volume in MT of produce sold collectively by SHFs	2 100	1 885	
Value of sales US\$	882 000	811 969	
Number of storage facilities and locations identified.	6	19	
Number of Farmers linked to MINAG for accessing SIMA	7 200	3 763	
Number of Farmers that have been trained to use SIMA	7 200	5 315	
Number of Farmers with access Markets information	7 200	5 018	
Number of FO's linked to buyers	150	257	
Number of Agro-business Fairs conducted	12	12	
Number of supported FOs accessing financial services	30	2	

Loan amount borrowed by FOs in US\$	6 000	4 935	
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Key implementation successes and challenges

SAFOZA had substantially fewer resources than the USAID project implemented beforehand, but was targeting a similar number of farmers. This posed a challenge to ADRA in that, whereas in the previous project they had six technicians per district, in SAFOZA they only had one technician per district. However, according to the project team, the project was able to achieve the same volume of sales as the USAID project and learned to be more efficient in their implementation plan by employing a ‘train the trainer’ approach, transferring knowledge to local leaders who helped them deliver their services. This was a major success driver.

Another success driver reported by the project team was the fact that the project was working in crops where there was unsatisfied demand in the market. This meant that there was a market ready for the farmers once they became organized to sell jointly.

A key challenge experienced by the project was the fact that the project only addressed the marketing constraints of farmers, but there was a huge need for production assistance. This meant that while the farmer organizations were trained and prepared to aggregate, many of them still encountered issues where farmers would not produce large enough volumes in excess of what they required for consumption. The project team also noted that there were floods during their first year of implementation that destroyed roads, and this affected the distribution of produce. A further challenge reported by the project team was the presence of armed men in the districts they were working in, which resulted in an unstable atmosphere and caused some tension which affected project implementation.

It was noted that many of the challenges experienced by the project were common challenges, but that the fact that the project was only three years, put pressure on ADRA to be able to meet the necessary targets in a very short space of time, and in spite of the challenges.

Impact and sustainability

In terms of impact, the project was successful at training the farmer organizations and capacitating them with the knowledge and skills to aggregate produce, cut out the middlemen and sell directly into larger markets. The project team and the beneficiaries alike noted that this knowledge will not be forgotten and they will continue to implement what they have been taught through the project. The beneficiaries noted that they now have an incentive to sell collectively and that, with the profit they have made, they have been able to purchase assets such as bicycles and motorcycles, which has helped them with transport, and they also reported being able to pay for school fees to send their children to secondary school. According to the project team, a number of new farmer groups have been established since the end of the program, through self-organization, as they have seen the benefits of selling collectively.

While the project has exhibited signs of being successful, there are factors that pose a risk to the sustainability of these outcomes. The first is the issue of low production quantities and poor storage capacity. The beneficiary farmers still struggle to produce sufficient excess beyond their own consumption which means the farmer organizations are constrained in terms of how much they are able to sell in bulk. A further issue is that of transportation. The project used to assist the farmer organizations in transporting them to markets to find out market prices and negotiate with buyers. They now have to organize this themselves which is an additional cost. A further challenge facing the farmer organizations is access to finance. The organizations require finance to be able to purchase equipment that will enhance their storage and processing capacity. Without this, there capacity to store and sell in bulk is limited. Additionally, many of the farmer organizations do not have the upfront capital to pay the farmers immediately after the harvest, which means either the farmers simply have to trust

the organizations and wait to be paid, hopefully at a higher price, or they might resort to side selling to ensure that they are able to meet their immediate needs.

ADRA tried to ensure sustainable support to the organizations by involving the local government in their project activities. However, their capacity to continue to support the communities is not guaranteed.

MOZAMBIQUE: TECHNOSERVE

Overview of the project

Grant value: USD 601 192

This project, implemented by TechnoServe and funded by the International Development Research Centre (IDRC), was proposed to AGRA as a way to support to the 'Applied Research Project on Post-Harvest Losses in the Soybean Value Chain in Mozambique', which aimed to develop evidence to support the identification and scaling of effective strategies and technologies to reduce post-harvest losses in Mozambique. The project built on the previous work of TechnoServe in developing the soy value chain in Zambezia, which was focused on increasing the production and uptake of soy seed by smallholder farmers and developing the capacity of small commercial farmers (SCFs) to provide inputs and services to smallholder farmers, such as land preparation and threshing. This project thus consisted of the following broad activities:

1. Recruit & Support 20 new SCFs to invest in threshing machines via Capex match-grants:
2. Support COPAZA to provide direct training to 20 new SCFs in business and marketing skills for use of equipment and delivery of services to surrounding SHFs;
3. Link SCFs to storage providers, traders and processors; and,
4. Promote increased production and marketing of nutritious soy-based products.

Activities (1) and (4) above were the key project activities, and were quite distinct from each other. Activities (2) and (3) supported Activity (1).

Activity (1) was focused on equipping 20 SCFs with threshing machines on a co-financed basis, where the farmer would have to put up at least 10% of the price of the threshing machine in cash and obtain a maximum of 40% of the cost on credit, and then TechnoServe would match the farmer contribution with the remaining 50% as a grant. TechnoServe assisted the farmers in registering for tax numbers and facilitated the engagements with the financial institution providing the loans. The SCFs were then also supported through training in business skills and good agronomy practices (2), and were linked to storage providers, traders and processors (3). Activity (4) on the other hand was focused on building the capacity of a farmer cooperative, known as Nossara, to process soya and produce nutritious soya derivatives such as soya bread, soya milk and soya cake.

Project performance

At the time of the evaluation, this project was still ongoing. The table below depicts performance against targets as of 30 September 2018.⁴⁹

Table 20: TechnoServe performance against targets

Indicator	Target	Actual	Achieved
Goal : Increased productivity and profitability of smallholder farmers in Northern Mozambique			
SHF Revenues/Value of Total Production (in \$/USD)	7 000 000	4 683 618	

⁴⁹ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Incremental Jobs	40	27	●
Capital Mobilised (\$/USD)	100 000	59 501	●
Nr. Target Farmers Using PH Facilities	3 250	282	●
Average Area of Land Under Soy for Target SHF's (Ha)	6 300	5 599	●
Soybean Yield For Target Farmers-ton/Ha (cumulative)	1.25	1.22	●
Reduction in Post-harvest Losses (Ton)	3 530	-	-
Gain From Reduced Post-harvest Losses (Ton)	1 779	-	-
Price Gain from Use of PHT = \$/USD (i.e. mechanized threshing equipment) (cumulative)	33	-	-
Objective 1: Facilitate Smallholder Farmer Access to Productivity Enhancing Technologies			
Nr. New SCF's Linked to Finance to Invest in Equipment	20	20	●
Nr. SCFs Trained (cumulative)	35	83	●
Nr. SHs/smallholders Trained/Access to Information	5 250	4 999	●
Objective 2: Facilitate Targeted Linkages to Value Addition/Market Opportunities			
Nr. SCFs Linked to Markets	20	20	●
Objective 3: Test and Assess Impact/Effectiveness			
Impact Assessment Conducted	1	0	●
Nr. Knowledge Exchange Workshops Held to Disseminate Lessons Learned	1	0	●
Field Surveys Conducted (cumulative)	1	2	●

Key implementation successes and challenges

The project was successful at identifying 20 women to support in accessing the threshing machines and facilitating negotiations and engagement with the financial institution, GAPI, to help the women access finance. However, this was not without a number of challenges. The first was in the actual identification of the women. The selection of women had to take place in two phases as there were not enough women who were able to front the cash at the beginning of the project. The first phase (2016/2017 season) thus consisted of nine women, one of which was able to pay the full 50% in cash and the remaining eight received loans. The second phase (2017/2018 season) consisted of the remaining 11 women, some of whom had used the first season to save up for the 10% down payment.

The process of sourcing the threshers and having them delivered to Gurùè was also fraught with difficulty. TechnoServe received their disbursements from AGRA in December and with the harvest in April, this gave them only 4 months to source the machines in time for harvest. However, in the first phase TechnoServe first waited for the women to have their bank loans approved before placing the order, but this process was very slow and it took a long time (approximately 4 months) for these approvals to come through. Then, once they had placed the order, it took another 3 months for the supplier in Brazil to deliver the machines to Maputo and then even longer to get them brought up to Gurùè.

The second phase encountered even more challenges. TechnoServe got approval from AGRA to place the order with the supplier before the bank loans had been approved in order to speed up the process; however, they had chosen to go with a different supplier in the second phase, and when the machines were delivered, many of them broke down in the first week as they did not have the correct motors installed. This meant that they lost the whole season as TechnoServe had to activate the guarantees and have the motors replaced. This happened in August/September 2018 and at the time of the evaluation, TechnoServe was still awaiting the delivery of the new motors. The result of this was that the women in the second phase were paying back a loan without having the threshers at their disposal to process their soya. TechnoServe did manage to renegotiate the terms of the loans with GAPI in light of this challenge, but there is still the risk that the second group of women will struggle to repay the loan this year.

The second component of the project was equally challenging. Upon commencement of the project, TechnoServe had been informed that the farmer cooperative, Nossara, was well-functioning and ready for further support/scaling. However, it was reported by the TechnoServe team that the cooperative was in fact quite weak, and so instead of trying to replicate it, they had to rebuild it and then expand it. At the time of the evaluation, the cooperative had only recently been expanded from its original location in Ruace to three other locations, and members had received training in how to make a selection of soya products. They had also undertaken a market study in Gurùè to understand the market for these products. As the project draws to a close, TechnoServe is supporting Nossara with equipment as another AGRA-supported organization, MIRUKU, is supporting the cooperative with the legalization and soft skills elements.

While the challenges documented above have been numerous, it is commendable that the TechnoServe team has been able to adapt and adjust their approach based on the realities on the ground. AGRA too has been accommodating of these changes, and this adaptability has been a key success driver of the project.

Impact and sustainability

Due to the challenges listed above and the recent conclusion of the project, it is not yet possible to draw meaningful conclusions on the longer-term impact of the project. The women from the first phase of threshing machine procurement have been using the threshers to process their own produce as well as leasing out the threshers to other farmers for a fee. According to two of the beneficiaries, this has resulted in less time and labor being expended to process their soya and increased income from the leasing. However, the women are still repaying the loans and so have not yet been able to benefit from this additional income and time, as it is all being put towards the loan repayments. The second group of women on the other hand do not yet have their threshers and may face difficulties this year in repaying their loans. Therefore, at this stage there is no real evidence for how successful these women-owned threshing businesses will be and the extent to which it will contribute to a reduction in post-harvest losses.

The main risk to the sustainability of the project at this stage is therefore the ability of the women to repay the loans in the absence of having the threshing machines. According to the project team, it is unlikely that GAPI will seize these, but there may be financial consequences, or in the worst-case scenario, the women may have to sell the threshers. A further issue for those that are currently using the threshers is access to parts. The beneficiaries consulted reported that access to parts can be a challenge. TechnoServe attempted to mitigate this issue by using some of the remaining budget to purchase spare parts for the women to save them having to spend money on these when they are still repaying the loans.

TANZANIA: CSDI (2014-MKT 005)

Overview of the project

Grant value: USD 250 000

Due to high transaction costs such as transport to access markets and buyers, smallholder farmers are forced to their produce to middlemen and brokers who buy produce at poor prices. CSDI identified that SMEs have a key role in providing market opportunities to farmers in remote areas. SMEs are able to create value by moving produce from rural areas to the market. Therefore, it is important to build the capacity of SMEs to provide market linkages to smallholder farmers and enable sustainability in increased farmer's productivity.

The objective of the CSDI solution was to provide SMEs with access to finance to allow SMEs to purchase produce from smallholder farmers; sustain the profitability of SMEs working with smallholder farmers and enhance the business relationship between SMEs and smallholder farmers. CSDI responded to the needs of smallholder farmers by providing BDS to small and medium enterprises (SMEs) who purchase raw material from smallholder farmers in the Southern Highlands of Tanzania, namely: Morogoro, Iringa, Ruvuma, Njombe, Mbeya, Rukwa and Katavi.

Through the project, CSDI was able to navigate the stages of SME development with emphasis on providing access to finance and building efficient and inclusive supply chains that provide sustainable markets for smallholder farmers. The program also focused on:

- Identifying SMEs that source raw materials such as maize, paddy, beans, sorghum and cassava from smallholder farmers in the regions of focus;
- Assisting in the development of business plans that allow SMEs to be more bankable and successfully access loans from financial institutions;
- Building internal operating systems that will enhance the financial and managerial capacity through training on record keeping, self-monitoring, good governance development of marketing and business strategies for beneficiary SMEs;
- Assisting SMEs source appropriate production equipment; and,
- Lastly, the project aimed to strengthen the link between farmers and SMEs.

Project performance

The table below provides a summary of key indicators based on the project reports.⁵⁰

Table 21: CSDI performance against targets

Indicator	Target	Actual	Achieved
Objective 1: Enhanced SME access to finance for the procurement of raw materials from smallholder farmers			
Loan amount disbursed to SMEs in USD	1 571 726	2 570 064	

⁵⁰ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Rate of SME loan repayment	95%	86%	
Objective 2: Sustained of SMEs that source raw materials from smallholder farmers			
Annual sales revenue of selected SMEs (USD)	7 760 000	8 004 847	
Number of selected SMEs supplying their products to large buyers	33	17	
Objective 3: Enhanced business relationship between SMEs and smallholder farmers			
Volume/quantity of produce sold by farmers to SMEs	21 866	36 189	
Value of raw materials purchased by SMEs from smallholder farmers	3 520 000	10 084 580	
Price gain/ premium price paid to farmers	15%	12%	
Objective 4: Link SMEs to financial institutions			
Number of SMEs that received loans from financial institutions	40	24	
Objective 5: Develop bankable business plans			
Number of SMEs assisted to develop business plans	40	31	
Objective 6: Assist SMEs to formally register their businesses			
Number of SMEs formally registered	40	32	
Objective 7: Improve SMEs financial and Managerial Capabilities			
Number of SMEs with effective internal control systems	40	29	
Number of policy manuals developed and delivered to SMEs	40	33	
Objective 8: Link SMEs to large buyers of agricultural commodities			
Number of supply contracts with large buyers	22	73	
Objective 9: Link SMEs to smallholder farmers			
Number of smallholder farmers supplying produce to selected SMEs	11 828	20 268	

Key implementation successes and challenges

The program was implemented from July, 2015 to December, 2016 for 18 months and the following achievements have been realized:

- A number of financial institutions in Tanzania such as TIB Development Bank, NMB Bank, CRDB Bank etc. are more open to lending to stakeholders in the agricultural sector. This has resulted in increased access to finance for SMEs has enabled SMEs to finance purchased of raw material from smallholder farmers in Tanzania that is used as input in the processing factories and have increased working capital.
- Improved grain handling capabilities and linkages to warehouse certification centers.

However, the CSDI project experienced some challenges. There was limited access to finance for SMEs due unanticipated risk averse nature of financial institutions in Tanzania to organizations working in the agricultural sector. Secondly, the government of Tanzania does not have the adequate capabilities to support the SME compliance processes. This resulted in delays in SMEs receiving certification. Lastly, SMEs neglected efforts to improve product brand and packaging.

Impact and sustainability

Overall, MAP-supported project through CSDI has achieved impact such increased access to finance. SMEs were better able to purchase produce from smallholder farmers for their processing factories. This led to an increase in smallholder farmer produce, allowing them to realize higher incomes. However, although CSDI made strides in providing access to finance, there was dwindling access to finance for SMEs from financial institutions as a result of tight monetary policies and changes in the management of public funds.

As a result of CSDI's support to ensure SMEs are formally registered and can access finance, it was reported that SMEs were better able to obtain supply contracts with institutional buyers. Additionally, CSDI provided training, coaching and mentoring support which built the capacity of SMEs to improve their business operations. For example, SMEs reported increased working capital and improved stock turnover from their processing activities. SMES under this project have also invested in grain handling machinery e.g. hermetic bags which has also been resold by smallholder farmers as a means of raised extra finances.

CSDI is a large not-for profit organization that aims to provide community development through entrepreneurship. All programming does not realize in any profits for CSDI, and the organization is heavily reliant on donor funding. To ensure sustainability of its business development services to SMEs, CSDI aims to collaborate with government to improve the SME business environment in Tanzania, work with commercial farmers and strengthen outgrower schemes and lastly to make use of blended finance.

TANZANIA: CSDI (2016-MKT 003)

Overview of the project

Grant value: USD 1 745 315

The Tanzanian agricultural sector experiences challenges with post-harvest loss of produce, with approximately 25-50% of produce lost annually. This loss in produce negatively affects smallholder farmers as they have a reduction in the available produce for sell, thereby reducing the earnings realized.

In line with the above, CSDI and AGRA set to test and demonstrate the use of grain storage technologies with the objective of reducing 50% of post-harvest loss at harvesting, threshing, drying and storage in Rukwa, Songwe, Mbeya, Iringa, Njombe, Ruvuma, Manyaram Arusha, Kilimanjaro and Dodoma. The YieldWise project provides market demand by linking smallholder farmers large anchor buyers and local alternative markets; farmer aggregation and training by upgrading aggregation centers and training farmers in post-harvest management, use of improved technologies; providing access to finance using innovative finance mechanisms to facilitate distribution and acquisition of technologies; promoting the adoption of loss reducing technologies to improve crop handling, storage and processing, and lastly, supporting policy analysis and advocacy of improved post-harvest technologies using standard metrics.

The project is implemented through a CSDI-led consortium with BRITEN and RUDI.

Project performance

The table below provides a summary of key indicators based on the project reports.⁵¹

Table 22: CSDI performance against targets

Indicator	Target	Actual	Achieved
Objective 1: Link 100 000 smallholder farmers to market demand of both large anchor buyers and local alternative markets			
Number of farmers aggregated groups selling to anchor buyers and alternative market channels at scale	100 000	-	
Volume of crop aggregated and sold through aggregation units	300 000	-	
% farmer crop volume accepted by aggregation units	86%	-	
Objective 2: Aggregate farmers for training in post-harvest management, promoting their adoption of technologies, and aggregating their produce to meet buyer quantity and quality			
Number of farmers delivering maize through aggregation centers	100 000	-	
Volumes of maize collected through aggregation centers	300 000	-	
Volumes of farmer deliveries that are rejected	5%	-	

⁵¹ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Objective 3: Use innovative finance mechanisms to promote post-harvest investments and facilitate distribution and acquisition of technologies among smallholder farmers			
Number of centers accessing the finance mechanisms	60	-	
Number of aggregation centers selling PHL technologies	80	-	
Number of value chain actors providing financing	100	-	
% repayment rate	85%	-	
Objective 4: Promote the adoption of appropriate loss-reducing technologies to improve crop handling, storage and processing			
Number of farmers adopting loss reducing technologies	60 000	-	
Number of farmers accessing technology	80 000	-	
% reduction in the cost of technologies due to economies of scale	5%	-	
Number of agro-dealers distributing technologies	100	-	
Number of value chain actors using crop loss metrics	60	-	
Number of value chain actors committing crop loss reduction	123	-	
Objective 5: Policy reforms and advocacy to remove barriers preventing technology adoption			
Conduct policy analysis and advocacy to remove barriers preventing technology adoption	-	-	
M&E of technology efficacy using standard loss reduction metrics	-	-	

There is no results measurement table or metric reporting in the narrative report for Q3 2018 provided by CSDI to conduct an analysis of the progress of the project against targets. All results and achievements of the project are captured in the section below⁵².

Key implementation successes and challenges

Some of the notable achievements that the project has made thus far include: a reduction in post-harvest losses of 60% following the increased use of post-harvest reducing technologies, 74 farmer organizations signed contracts with 5 anchor buyers, maize volume commitments with two buyers (Musoma Foods and APECK International) and 180 farmer organizations with forward contract deliveries have aggregated 87,760 MT⁵³.

The challenges that the detracted from its success included:

- Farmer perception on the negative financial implications of use of hermetic bags has limited adoption.

⁵² The CSDI project, Grant No. 2016 MKT 003 was still going during the evaluation. This may have contributed to the lack of data on progress metrics.

⁵³ This information reports the progress against the targets as at 2018 Q3.

- In 2015, there was increased price instability which made it challenging to manage contracts to deliver maize through the structured trade system.
- Given that the price of maize is volatile and affected by internal and external prices. As a result of the Tanzanian government export ban and increased imports of maize, the price of maize decreased significantly. The uncertainty in maize prices makes it difficult to fulfil forward contracts and there is reduced appetite for buyers to purchase large volumes of maize. Further to this, where maize prices are high, buyers do not compromise on price resulting in farmers storing maize for longer periods of time. This prevents the aggregate of more maize as warehouses get clogged.
- The lack of fulfilment of forward contracts results in defaults in loan repayment.

Impact and sustainability

It is currently too early to tell whether the YieldWise project will be financially sustainable. However, there is evidence that the beneficiary-level impact may be sustained as smallholder farmers have adopted the use of post-harvest loss reducing technologies, smallholder farmer and farmer organizations are aggregating produce and there are some linkages to market through the use of forward delivery contracts. Additionally, CSDI has engaged the government to advocate for the importance of post-harvest losses in Tanzania. As a result, there is increased interest from the government and they are developing a National Post-Harvest Loss Plan. Despite, interest from government, a critical barrier that limits market linkages are the restrictions around exports which pose a risk for the continuation of structured trade systems.

Through MAP's support, CSDI has engaged with various stakeholders in the sector and are in the process of developing a handbook Post-Harvest Management for smallholder farmers. The main aim is to share knowledge of post-harvest loss reduction through agro-dealers in the country.

TANZANIA: SNV

Overview of the project

Grant value: USD 500 000

Despite Tanzania being an agricultural country, the agricultural sector is underdeveloped which poses a threat to food security in relation to food production, stability of supplies, access to food and utilization. This can be attributed to the use of poor seeds and agronomic practices which lead to low productivity. Secondly, the Southern region (breadbasket) has poor soil which lack the necessary nutrients required for high crop productivity and farmers face post-harvest losses. Thirdly, the sector has weak marketing structures as it is controlled by the state, making it difficult for farmers to find markets for their produce. Additionally, farmers fail to find markets as they do not meet the required quality and quantity standards. Lastly, Tanzania has weak farmer organizations which do not have the adequate resources and capacity, making them unable to provide the financial, advisory, and marketing services required by farmers.

To address this challenge, SNV Tanzania implemented a project titled “Integrated Project to Increase Agricultural Productivity in the Breadbasket Area of Southern Tanzania” which sought to increase the productivity of selected commodities – maize, rice, soybeans and beans to competitively supply both national and regional markets. The project used a value chain development approach to achieve integration across the areas of intervention with the aim of enabling both men and women smallholder farmers benefit from the use of improved technologies, agronomy and efficient markets so as to improve their food security and increase household incomes.

The objectives of the program were to:

- Strengthen the capacity and efficiency of farmer organizations;
- Increase smallholder market-led agricultural production;
- Enhance smallholder farmer access to structured produce markets; and,
- Improve access to extension and advisory services amongst smallholder farmers and the private sector.

The above was done through a consortium of five partners: RUCODIA, ACT, CRDB Bank, Global Associates and SNV Tanzania.

Project performance

The table below provides a summary of the key indicators for the project in question:⁵⁴

Table 23: SNV performance against targets⁵⁵

Indicator	Target	Actual	Achieved
Overall objective: Enable men and women smallholder farmers to benefit from improved technologies, agronomy and efficient markets necessary to improve food security and household income			

⁵⁴ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

⁵⁵ The targets cited above are based on approximated percentages and not actual numbers stated in the project proposal

Increase income and food security of smallholder farmers in Mbeya and Rukwa regions	45 000	n/a	-
Objective 1: To strengthen farmer organizations' capacities in institutional, managerial and technical aspects to support the needs of their members			
Change in the FO's membership by targeted smallholder farmers	90%	87%	
% of members retained by FO's annually	97%	85%	
Change in FO rating capacity based on AGRA-FOSCA performance index	90%	67%	
Objective 2: To improve smallholder market-led agricultural production			
Average distance travelled by SHF to nearest agro-input	5km	7.5km	
Number of agro-dealers trained by the project and remain in business	260	236	
Volume of seed sold through agro-dealer per year	24 000 MT	15 087 MT	
Average number of farmers served by trained agro-dealers per year	240	476	
Average yield of rice, maize, beans and soyabeans	2.75 t/ha	2.26 t/ha	
% of smallholder in target area using improved seed	90%	82%	
% of participating SHFs using fertilizers	90%	92%	
% of target farmers accessing fertilizer through agro-dealers supported by the project	90%	92%	
Objective 3: To enhance smallholder farmers' access to structured produce markets of rice, maize, beans and soyabeans			
Total volume of produce sold by farmers annually through STS	40 200	35 400	
Total value (USD) of income obtained by farmers through STS	4 020 000	5 515 000	
Actual number of targeted farmers aggregating produce and selling collectively	65 000	40 000	
% of change in level of PHL in storage among SHFs using storage systems	15%	20%	
Objective 4: To improve access to extension and advisory services by smallholder farmers' and the private sector			
Proportion of farmers accessing agricultural information through extension agents	90%	85%	
Number of agro-dealers providing information to clients	90	236	
Number of agro-dealers participated in carrying out demos	90	125	

Key implementation successes and challenges

Through KIIs and a document review, the evaluation team found that the SNV MAP-supported project achieved the following project success:

- All farmer organizations targeted were trained and reported improved capabilities to deliver services required by member farmers in an accountable and timely manner.
- Farmers, through their farmer organizations, were linked to other value chain actors such as agro-dealers to supply inputs on time.
- It was reported that there was some level of women empowerment as women beneficiaries started applying for leadership positions in the farmer organization.
- More than the targeted number of agro-dealers were trained and established a rural agro-dealer network. The network allowed for ease of access to input for farmers, resulting in a reduction in travel time.

Some notable challenges that the project experienced include:

- Changes in government policy relating to export bans. This resulted in a reduction in the market linkages formed between farmers and top-of-the-supply-chain buyers.
- The project sought to address financial literacy of farmers and to provide financial products and services but was unable to do so due to the poor performance of some partners in the consortium.
- Droughts in the southern region of Tanzania affected the farmers productivity and ability to repay loan taken from financial institutions.

Impact and Sustainability

To ensure continuity of the progress achieved under the MAP, SNV linked farmer organizations with their Inclusive Business project in the sunflower value chain and a Biodiversity Conservation project. Given that SNV is a not-for-profit organization that relies on donor funding to implement program activities, there is no evidence of sustained impact.

While the project has achieved substantial impact in increasing the knowledge and capacity of farmer organizations and farmers in good agronomic practices and has laid the foundation for market linkages, there are various factors that pose a risk to the sustainability of the impact achieved. Examples of these include: weak farmer organization leadership that reduces the effectiveness of farmer organizations; climate change and droughts reduce farmer's harvest, making it challenging for them to supply the demanded produce; and, loss of market linkages which may result in weak relationships between farmer organizations and farmers which may result in a discontinuation of the MAP activities. Lastly, there is a need for projects to partner with local government authorities to ensure smooth and effective implementation of development interventions.

BURKINA FASO: GRAD CONSULTING

Overview of the project

Grant value: USD 649 372

The “Catalyzing scale adoption of cowpea post-harvest innovations for enhanced prosperity and food security in Burkina Faso” (CLAPHI) was implemented by GRAD Consulting between June 2016 and March 2019 (delayed project closure).

CLAPHI aimed to improve the income of the various actors throughout the cowpea value chain through widespread adoption of technological innovations to reduce post-harvest losses and better marketing of cowpeas.

The specific objectives of the project included:

- Scale up innovative post-harvest technologies (PHTs) for cowpeas, specifically threshers and PICS bags, to achieve meaningful impacts in the lives of farmers, women and youth;
- Improve cowpea farmers’ access to markets (consumers and institutional markets); and,
- Assess the effectiveness of select delivery models for the chosen innovations and disseminate evidence and lessons from the scaling efforts to catalyze the field and inform policy change and investment.

At the outset of this grant, the cowpea value chain was not performing at potential despite the importance it plays in household diet across the country. Cowpea is grown across the country with national production growing tremendously in the years preceding CLAPHI, however; still below the national and regional demand. In addition to noted demand, the cowpea value chain is highly inclusive of females.

CLAPHI aligned well with MAP’s market development archetype and is consistent with the objectives by supporting improved production by introducing innovative techniques, strengthening farmers’ organizations around aggregation centers to support storage and access to credit, and access to markets for smallholder farmers.

Project performance

Overall, CLAPHI was a success with the following being some of the indicators demonstrating the highest achievements as of December 2018, as reported in their final narrative reports:⁵⁶

- Reduced post-harvest losses exceeded targets by 10%.
- Volume of target crop sold by supported farmers (MT) exceeding targets by 22%.
- Establishment of Aggregation Centers (50).
- CLAPHI seeks to exceed the target of 5 000 farmers trained on post- harvest technologies by the end of March 2019.

⁵⁶ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Table 24: CLAPHI performance against targets (selected indicators)⁵⁷

Indicator	Target	Actual	Achieved
Improved food security: Average number of months of adequate household food provision	10,7	10,52	
Improved food security: Household dietary diversity index	6,6	6,08	
Increased income generated from target crop by target farmers	233	186	
Improved livelihood for youth: Number of jobs created for youth (FTE) as a result of the Project intervention	80	49	
Reduced post-harvest losses: Percentage (%) of crop losses during storage	10%	11%	
Increased marketing of targeted crops: Volume of target crop sold by supported farmers (MT)	1404	1711,215	

Key implementation successes and challenges

In terms of the greatest successes experienced by CLAPHI, it can be said that the introduction of innovative technologies was taken well by those who were trained and had access.

The introduction of PIC bags was successful, with CLAPHI reporting in June 2018 that 94.28% of respondents say they know PICS bags and 83.96% say they use them to preserve their products. However; high price and presence of fake bags on the market remains a hinderance to wider take up.

To improve the quality and reduce the hardship on the farmers, threshers were introduced and purchased by FBOs and private operators within the project region. However; there was significant differences between those that were successful and those that had continued challenges and so it is not possible to conclude that threshing businesses are entirely sustainable. GRAD continues to provide extensive support to the operators.

There were 50 aggregation centers established throughout the project which facilitated improved storage for the farmers' product as well as successfully increased market access for those farmers

Impact and sustainability

The demonstration of effective PHT have seen some adoption by farmers across areas – challenges will remain while the access to PIC bags and threshers is not 100% solved by the market actors.

The extensive training for the management of the aggregation centers will hopefully continue to facilitate not only the continued support for those farmers engaged in the aggregation centers, but will encourage expanded growth and support over time.

Of most interesting value is the knowledge sharing activities that CLAPHI has been undertaking most recently. In fact, the multifunctional threshing machine won the prize for innovation oriented towards the rural world at the 12th edition of the FRSIT 2018.

⁵⁷ A selected number of high level and indicative indicators have been selected out of over 40 indicators.

BURKINA FASO: SICAREX

Overview of the project

Grant value: USD 800 000

The “Burkina rice commercialization project” (BRICOP) was implemented by SICAREX between January 2014 and December 2016 to improve food security and incomes of 20 000 small holder farmers in the Houet and Kénédougou provinces through the improvement of productivity, access to markets and finance, particularly in the rice value chain.

Rice is the fourth largest cereal crop produced in Burkina Faso and is increasingly becoming a strategic crop for a variety of reasons.

In order to achieve the overall project purpose, the project sought to increase farmers’ access to improved seeds, fertilizer and knowledge on good agronomic practices through the facilitation of partnerships between farmers, agricultural research and extension services, seed companies and dealers of agricultural inputs. To support streamlined value chains, the project facilitated linked access to inputs through to processors/buyers. To improve the quality of rice, the project strengthened the capacity of farmers with improved post-harvest techniques and the capacity of processors was addressed. Additionally, access to appropriate financing for both farmers and processors will also be a priority of this project.

The rice produced by small holder farmers was generally of poor quality and buyers were uninterested due to the quality and lack of consistent volumes.

BRICOP aligned with MAP’s program theory as it sought to address production, aggregation and storage, access to markets and finance.

Project performance

The following table reviews performance against targets:⁵⁸

Table 25: SICAREX performance against targets (selected indicators)

Indicator	Target	Actual	Achieved
Number of leaders of farmer organizations trained	400	97	
Number of farmers trained in the integrated management of soil fertility and crop management	17 375	20 000	
Number of smallholder farmers participating in aggregation centers	7 492	10 000	
Volume of paddy traded (tons)	4 931	5 000	
Increase in farmers’ yield (average)	4.2 t / ha	4.68 t / ha	

⁵⁸ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Key implementation successes and challenges

Over the 3 years 17 375 producers (expected 20 000) attended training on integrated management of soil fertility (IMSF) and crop management; however, a very low percentage of the farmers were known to implement these techniques post-training.

Despite efforts to build the capacity of agricultural organizations, and wide training, BRICOP was unsuccessful due to challenges faced by the organizations as it pertains to expected state support. At the conclusion of the grant, 9 farmer organizations were selling their paddy to the processors on a group basis. The volume of paddy traded was 3 727 tons over the 3 years by these farmer organizations.

Further, the projects expected use of demonstration plots was unsuccessful as less than 20% of the expected number of farmers had access to training via demonstration plots despite the evidence of improved rice yields from IRS farming.

Yield increased from 2.81 t / ha to 4.68 t / ha (target of 4.2 t / ha). There was an improvement in the income of the beneficiaries, a substantial increase was achieved in the price of rice sold by the farmers from CFAF 135,000 on average to CFAF 155 000 (difference of approximately USD 35) per ton.

Farmers demonstrated a reduction from 10 to approximately four varieties of rice, as requested by the market, and importantly, on those production sites with contracts, the variety produced by the farmers was indeed the one supplied, and therefore, demonstrated increased understanding of market value and commitment.

Those farmers adopting improved PHT achieved a reduction in post-harvest loss to only 12%.

Impact and sustainability

A very low percentage of the farmers were known to implement the SRI techniques post-training – SRI requires a lot of physical effort during planting due to lack of manpower and lack of mechanization, and thus this limits uptake. The farmers have adopted integrated soil and water fertility management technique. However; for those that did implement improved practices, they continue to experience increased prices for their product.

Access to finance remains a challenge across the rice value chain actors, however; the processors did benefit from loans, while; the farmer associations continue to be funded through the sale of advanced inputs.

The various intervention components did not demonstrate true economic value to the various market actors and so, there was less than expected uptake and generally, limited long term sustainability.

BURKINA FASO: APME2A

Overview of the project

Grant value: USD 650 000

The “Mitigating Post harvest Quantity and Quality Losses and Improving Market Access / Reduction des pertes post-recolte et d'accès au marché” (RPAM) was implemented by Agence pour la Promotion de la Petite et moyenne entreprise. Agriculture et Artisanat (APME2A) between July 2012 and December 2015.

RPAM was an extension of an original initiative, to continue the work done to improve incomes for at least 13 000 smallholder farmers through the reduction of postharvest losses, the improvement of produce quality and access to lucrative markets. The specific objectives included:

- Improvement of organizational, financial and managerial capacity of targeted farmers' organizations;
- Reduction in post-harvest quantity and quality losses;
- Improvement of linkages of farmers to lucrative markets.

These objectives were to be achieved through improving the market system, and specifically; providing farmers access to storage services, threshing and cleaning services, training on post-harvest handling operations and standard and quality requirements. Additionally, the project sought to operationalize 50 aggregation centers, link 5 000 farmers to the aggregation centers, and market 7 000 MT of produce through contracts each year.

Project performance

RPAM was not particularly successful and did not achieve many of its targets, with the following performance against indicators provided in the narrative report:⁵⁹

Table 26: APME2A performance against targets (selected indicators)

Indicator	Target	Actual	Achieved
Change in the volume of products sold per farm household on the market	0,9	0,75	
Average income per smallholder farmer	650,00	168,00	
Post-harvest loss rate in storage for cereals	5%	3%	
Post-harvest loss rate in storage for cowpea	10%	4%	
Number of farmers organizations with functional marketing committees	600	677	
Number of smallholder farmers with access to financial services from financial institutions	3 000	1 327	

⁵⁹ A green dot signals that the partner achieved the target, an orange dot signals that the partners achieved between 75%-99% of the target and a red dot signals that the partner achieved less than 75% of the target.

Number of smallholder farmers using commercial facilities (guarantee, contracts)	10 000	16 082	
Volume of products sold through aggregation centers	13 000	9 793	
Margin gain between field and market prices	10%	14,7%	

Key implementation successes and challenges

The smallholder farmers who were indeed trained on improved PHL techniques, did demonstrate a reduction in PHL and ultimately, benefited from greater prices on the quality of the products.

16 000 small holder farmers (of an expected 10 000) were using the warehousing services of the aggregation centers, however; less than expected volume of product was being sold through the warehouse (only 75% of expected targets). The benefit to the farmers who are selling in large quantities are able to then invest in larger items such as oxen or machinery which they are unable to do so when selling small quantities regularly.

Impact and sustainability

Overall, the expected outcome indicators were not achieved. One of the key objectives was to increase the income of the smallholder farmers' households, the households experienced a slight increase, but only at 26% of the expected increase. It is not actually evident that this increased income has maintained beyond the end of the project.

The greatest result of the program was the establishment and training of operation for aggregation centers to facilitate smallholders to structure their crops. The aggregation centers continue to have wholesale contracts with organizations including World Food Program (WFP) and SONAGESS / Grow Africa.

APPENDIX 2: EVALUATION FRAMEWORK

Evaluation questions	Desktop review	KI: AGRA (Hq)	KI: AGRA (Country)	KI: AGRA Partner	FGD/KI: Beneficiary
Relevance					
Does the portfolio of partners that MAP has assembled align with the program Theory of Change? Was the portfolio of funded interventions aligned with the overall purpose of the MAP?	X	X			
How did MAP partners seek to understand the needs of their intended beneficiaries and how did they design the projects to meet those needs?				X	
To what extent were the services offered appropriate to the needs and capability of the beneficiaries?				X	X
To what extent was the division of interventions into the three archetypes (DP, MD, SS) been useful and appropriate to the execution of the program?	X	X			
To what extent was the program model/execution strategy adapted based on particular country contexts?		X			
To what extent were the MAP interventions relevant to the particular market constraints and value chains in each of the program countries		X	X	X	
Effectiveness					
To what extent did the MAP theory of change hold? i.e. How effectively has the program identified and addressed challenges to market access? Did the interventions achieve expected outputs, outcomes and impacts?	X	X		X	
To what extent have MAP partners' interventions met the needs of the intended target population?		X		X	X
What factors influenced the achievement of the MAP's objectives?		X		X	
What were the key successes of the MAP? What are the particular success drivers of MAP partners?	X	X		X	X
What were the identified challenges? What challenges require further attention in AGRA's future Markets work?	X	X		X	X
How effective was the particular mechanism employed by AGRA to support implementing partners (i.e. grants) and are there alternative mechanisms that could have been more effective?		X		X	
To what extent has MAP successfully reached female beneficiaries?	X	X		X	X
What gender-specific barriers or obstacles might have prevented either men or women from participating or benefiting from the program?				X	X
Have the outcomes of the program been influenced by external factors (political, climate) and if so how?		X		X	X
If external events have arisen or circumstances changed, what different effects have they had on men and women?		X		X	X
To what extent was the integration of MAP with other AGRA programs successful? What lessons can be taken out to inform AGRA's new integrated approach		X		X	
To what extent does MAP share knowledge and lessons learned from its portfolio with other AGRA program teams?		X	X		
To what extent did AGRA make use of MAP's learnings? What improvements in the sharing process are needed, if any?		X	X		

Evaluation questions	Desktop review	KII: AGRA (Hq)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
To what extent would the partners have been able to implement their interventions without the support of AGRA?				X	
Efficiency					
How well was the MAP managed in terms of pipeline development or origination strategy (including support to applicants during the grant application process)?		X			
To what extent was there competitive assessment of bids in the selection of the partners (including governance arrangements, due diligence and application of criteria)?		X			
How effectively was the contracting process managed for successful partners?		X		X	
How effective was the management of grants (including reporting and disbursements) and provision of implementation support to partners?		X		X	
How efficient was the structure of the AGRA MAP team, given the spread across countries and variance of project activities?		X		X	
Did MAP's monitoring system accurately capture partner progress and key performance indicators?	X	X			
How effectively were the MAP monitoring and reporting activities managed?		X		X	
What, if any, are areas where improvements are needed in the monitoring and reporting processes?		X		X	
How economically and efficiently was spending managed by the AGRA MAP team?	X	X			
How economically and efficiently was spending managed by the partners?	X	X			
Were outputs delivered on time and within budget?	X	X			
Impact					
To what extent have smallholder farmers that have been trained in post-harvest techniques and marketing been able to participate in supply chains? Has this resulted in repeat/contract engagement with markets?				X	X
To what extent did collective marketing by smallholder farmers reduce transaction costs and improve incomes?				X	X
To what extent have delivery platforms for structured trading been effective (WRS, ICT)?		X		X	X
Did the approach of providing business development services (BDS) to SMEs result in smallholder farmers' linkages and growth? How many of the supported companies are still operating profitably?				X	X
Overall, to what extent did MAP achieve its overarching objectives; namely a reduction in transaction costs, an increase in the value addition in food usage, an increase in demand for food staples through alternative uses, and promoting an enabling environment for local and regional trade of food staples.	X	X	X	X	
To what extent have there been any indirect or unanticipated positive or negative changes as a result of the program?	X	X	X	X	X
Has the program affected men and women differently? To what extent have there been any unanticipated positive or negative change in relations between men/women as a result of MAP?		X	X	X	X
Sustainability					
To what extent did intervention partners and value chain actors adopt new behaviors and practices? Are these partners and value chain actors still practicing these?		X		X	X

Evaluation questions	Desktop review	KII: AGRA (HQ)	KII: AGRA (Country)	KII: AGRA Partner	FGD/KII: Beneficiary
To what extent, if at all, did intervention partners and value chain actors adapt these new practices since the program stopped intervening?				X	X
To what extent has sustainability of the interventions been taken into account by the partners? How did the partners try to ensure the sustainability of their interventions?				X	
What country-level policy and regulatory reforms did AGRA support/facilitate that increased markets and trade of focus crops? What reforms still need to be supported in focus countries and regions to improve markets and regional trade?		X	X		
What ecosystem features are most important for success and expansion of market access for smallholder farmers?		X	X	X	
What are the possible risks to the sustainability of the MAP intervention outcomes?		X	X	X	X

APPENDIX 3: STAKEHOLDERS CONSULTED

Organization	Stakeholder type	Name	Type of interview
Burkina Faso			
AGRA	Internal	Jules Some	In-person
APME2A	Partner	Bationo Nebila	In-person
GRAD Consulting Group	Partner	Nikodem Pikbougoum	In-person
SICAREX	Partner	Moise Kabore	In-person
SICAREX	Partner	Adama Ouedraogo	In-person
Mozambique			
AGRA	Internal	Paulo Mole	In-person
ADEM	Partner	Manuel Queiroz Dos Santos	In-person
ADRA	Partner	Armindo Salato	In-person
ADRA	Partner	Farai Muchiguel	In-person
ADRA	Partner	Florencio Maquina	In-person
TechoServe	Partner	Jane Grob	Telephonic
TechoServe	Partner	Daniel Brown	In-person
TechoServe	Partner	Alumudena Pelegrin	In-person
TechoServe	Partner	Paulo Cunha	In-person
Kenya			
AGRA	Internal	Anne Mbaabu	In-person
AGRA	Internal	Ones Karuho	In-person
AGRA	Internal	Mellyne Ongango	In-person
AGRA	Internal	John Macharia	In-person
AGRA	Internal	Anthony Ngosi	Telephonic
AGRA	Internal	Fred Muhhuku	In-person
Agricultural Market Development Trust (AGMARK) - SAIOMA	Partner	James Mutonyi	In-person
Cereal Growers Association (CGA) - SAIOMA	Partner	Anthony Kioko	In-person
Co-operative Bank - SAIOMA	Partner	Rehema Kewasis	In-person
East African Grain Council (EAGC Kenya)	Partner	Samwell Rutto	In-person
East African Grain Council (EAGC Kenya)	Partner	Penina Gichuru	In-person
Farm Concern International (FCI)	Partner	Anthony Kaunga	In-person
Farm Concern International (FCI)	Partner	Christine Akoth	In-person
Ghana			
AGRA	Internal	Anthony Ngosi	In-person
AGRA	Internal	Forster Boateng	In-person
Concern Universal	Partner	Juliette Lampoh	In-person
Ghana Grains Council (GGC)	Partner	Emily Boahen	In-person
Ghana Grains Council (GGC)	Partner	Orleans Nii Chinery	In-person
IMAGE-AD Company Limited	Partner	Lydia Nikoi	In-person
IMAGE-AD Company Limited	Partner	Kwame Bentil	In-person
Tanzania			

AGRA	Internal	Vianey Rweyendela	In-person
AGRA	Internal	Edward Agaba	In-person
Center for Sustainable Development Initiative (CSDI)	Partner	Ulrich Mwinyiechi	In-person
Center for Sustainable Development Initiative (CSDI)	Partner	William Massawe	In-person
SNV Tanzania	Partner	Thomas Ole Sikar	Telephonic
African Conservation Tillage Network (ACTN)	Partner	Simon Lugandu	In-person

APPENDIX 4: DOCUMENTS REVIEWED

Name of Document
Background and Grant Agreements
Market Access Program Proposal
Revised Market Access Program Proposal
AGRA-Bill & Melinda Gates Foundation signed grant agreement
AGRA-Bill & Melinda Gates Foundation amendment to grant agreement for Ethiopia support
AGRA Request for No Cost Extension
MAP Program Progress Reports
Update on Market Access Program Report 2018
AGRA Market Program Phase II Report 2017
AGRA Market Program Phase II Report 2016
AGRA Market Program Phase II Report 2014
Annual Progress Report 2007 - 2016
MAP Program Grants
Bill & Melinda Gates Foundation Grant Status
MKTS Grant Status
Total Market Access Program Grants
Grants by year and country since 2010
Proposals for selected partner in each country
Final narrative report for selected partners in each country
MAP Strategy
Detailed Country Business Plans 2009
Program Linkages (Market Access and Other AGRA Programs)
Execution Models 2009
Business Plan: Executive Summary 2009
Business Plan 2009
Markets Program Investments
Mid-term Evaluation
Terms of Reference for the Final Evaluation of the MAP Phase I
Mid-term Evaluation of the Market Access Program Final Report 2015
Other studies and reports
Terms of Reference – Analyzing the Effectiveness of Interventions Aiming at Linking Smallholder Farmers to Markets
Analyzing the Assumptions Underlying the Interventions Aiming at Linking Smallholder Farmers to Markets Report 2015
Improving African Grain Markets for Smallholder Farmers 2015
List of questions for market study

APPENDIX 5: DATA COLLECTION TOOLS

INTERVIEW GUIDE - AGRA HQ

Hi, my name is _____. Thank you for taking the time to speak to us. As you know, we are conducting an end of program evaluation of AGRA's Market Access Program.

This interview is aimed at understanding the purpose and theory of change of MAP, the appropriateness of its design and execution, the results it has achieved and how well it has been managed.

Everything we discuss today will be kept strictly confidential. There are no right or wrong answers and nothing you say will be attributed to you in our report. We will be taking notes during the conversation to assist us with data analysis later, but these will not be shared beyond the Genesis team.

Do you have any questions for us, or are you happy for us to proceed?

Introduction

1. Please introduce yourself and your role at AGRA.
2. Please explain your role/engagement with MAP.

MAP theory of change

3. Please can you describe, at a very high level, the theory of change behind MAP.
 - a) What are some of the key assumptions that underly this theory of change?
 - b) Looking back, were there any of the underlying assumptions of the TOC that didn't hold in reality? Please explain.
4. Please can you describe the MAP country and intervention selection processes.
 - a) What was the rationale behind these selections? What gap/market constraints were identified for MAP to address?
 - b) Overall, do you feel that the MAP interventions aligned with the program theory of change? Were there any that did not align well with the TOC? Why?
 - c) Was the division of interventions into three archetypes (DP, MD, SS) useful and appropriate for the execution of the program? Why/why not?

Management of MAP

5. Please can you give us your assessment of the effectiveness and efficiency of the internal management of MAP (i.e. how well were these activities done, could they have been improved?), specifically:
 - a) Pipeline management/origination
 - b) Grantee selection
 - c) Contracting
 - d) Grant management, including disbursements and support to grantees
 - e) Monitoring and reporting
 - f) Budget management
 - g) Team structure
6. How effective was the mechanism of support (i.e. grants) employed by AGRA?
 - a) Why was this mechanism chosen?
 - b) In hindsight, are there alternative mechanisms (i.e. loans) that could have been more effective?
7. Overall, were outputs delivered on time and within budget?
 - a) Where there were instances of delay or overspend, what were the reasons for this?

Achievement of objectives

8. Overall, to what extent did MAP achieve its overarching objectives in the selected countries? *Namely, a reduction in transaction costs, an increase in the value addition in food usage, an increase in demand for food staples through alternative uses, and promoting an enabling environment for local and regional trade of food staples.*
 - a) What were the key factors that influenced this achievement?
9. Were there any unanticipated positive or negative results of MAP?
10. To what extent do you think the MAP interventions correctly identified and met the needs of the target beneficiaries?

Gender dynamics

11. Were there any gender dynamics that interventions had to take into account?
 - a) Have the MAP interventions affected men and women differently? Was this expected?
 - b) Were there any unanticipated changes to the relations between men and women beneficiaries as a result of MAP interventions?

Successes and challenges

12. What do you think were the key successes of MAP?
13. What were the key challenges?
 - a) Which of these will continue to require attention in AGRA's future markets work?
14. Were there any significant external factors outside of your control (e.g. political, climate) that played a role in the roll out of MAP?
 - a) How did these affect the program?
 - b) How can future markets work account for these factors?

Ecosystem

15. What ecosystem features do you think are most important for success and expansion of market access for smallholder farmers?
 - a) What country-level policy and regulatory reforms did AGRA support/facilitate that increased markets and trade of focus crops?
 - b) What reforms still need to be supported in focus countries and regions to improve markets and regional trade?

AGRA integration and knowledge sharing

16. To what extent was the integration of MAP with other AGRA programs successful?
 - a) Are there any lessons from those experiences that can inform AGRA's new integrated approach?
17. To what extent does MAP share knowledge and lessons learned from its portfolio with other AGRA program teams?
 - a) To what extent did AGRA make use of MAP's learnings? What improvements in the sharing process are needed, if any?

Sustainability considerations

18. Overall, how likely is it that MAP intervention outcomes will be sustained?
 - a) What are the possible risks to the sustainability of these outcomes?

Closing

19. If you had a time machine and could go back to the start of the program, is there anything you would have done differently? Why?
20. Is there anything we have not covered that you would like to add?

INTERVIEW GUIDE - AGRA COUNTRY TEAMS

Hi, my name is _____. Thank you for taking the time to speak to us. As you know, we are conducting an end of program evaluation of AGRA's Market Access Program.

This interview is aimed at understanding the purpose and theory of change of MAP, the appropriateness of its design and execution, the results it has achieved and how well it has been managed.

Everything we discuss today will be kept strictly confidential. There are no right or wrong answers and nothing you say will be attributed to you in our report. We will be taking notes during the conversation to assist us with data analysis later, but these will not be shared beyond the Genesis team.

Do you have any questions for us, or are you happy for us to proceed?

Introduction

1. Please introduce yourself and your role at AGRA.
2. Please explain your role/engagement with MAP.

Country Context

3. What is your perspective on how the market infrastructure for agricultural produce has changed in [Burkina Faso/Ghana/Kenya/Mozambique/Tanzania] as a result of MAP?
4. From your perspective, what is required to further promote efficient and inclusive markets for agricultural produce?
 - a) What are some of the key challenges still facing smallholder farmers in accessing markets?
 - b) How can these barriers be overcome?
 - c) Are there any barriers that are specific to women in particular? What is required to address the gender differentials?
5. What will you be leveraging from the previous markets work AGRA has done in [Country X] to achieve this?

Ecosystem

6. What broader ecosystem features do you think are most important for success and expansion of market access for smallholder farmers?
 - a) What country-level policy and regulatory reforms in [Country X] has AGRA supported/facilitated that increased markets and trade of focus crops?
 - b) What reforms still need to be supported in the country and region to improve markets and regional trade?
7. What will you be leveraging from the previous policy/advocacy work AGRA has done in [Country X] to achieve this?

AGRA integration and knowledge sharing

8. To what extent does AGRA share knowledge and lessons learned from one program (e.g. MAP) with other AGRA program teams?
 - a) How are these learnings used? What improvements in the sharing process are needed, if any?

Sustainability considerations

9. What are the possible risks to the sustainability of the observed outcomes from MAP?

INTERVIEW GUIDE – PARTNERS

Hi, my name is _____. Thank you for taking the time to speak to us. As you know, we are conducting an end of program evaluation of AGRA's Market Access Program.

This interview is aimed at understanding the relevance and results of the interventions you have been implementing with AGRA MAP's support.

Everything we discuss today will be kept strictly confidential. There are no right or wrong answers and nothing you say will be attributed to you in our report. We will be taking notes during the conversation to assist us with data analysis later, but these will not be shared beyond the Genesis team.

Do you have any questions for us, or are you happy for us to proceed?

Introduction

10. Please introduce yourself, your organization and your role at your organisation.
11. How do the interests of your organization align with the objectives of MAP?

Intervention design

12. What gaps/market constraints did your intervention seek to address? [*Probe in which value chains*]
13. How did your organization identify and select beneficiaries [smallholder farmers, SMEs, etc] to take part in the intervention?
 - a) How did your organization understand the needs of these beneficiaries?
 - b) Did your organization have to consider any gender-specific needs of beneficiaries?
 - c) How did the organization design or adapt the intervention to meet these needs?

Grant management and relationship with AGRA

14. Please can you give us your assessment of the effectiveness and efficiency of the grant management process with AGRA (i.e. how well were these activities done, could they have been improved?), specifically:
 - a) Contracting
 - b) Disbursements
 - c) TA and support to your organization
 - d) Monitoring and reporting
15. Has your organization received any capacity building or training from AGRA MAP?
 - a) If yes, how has this support effected the operations at your organization?
16. Was the grant mechanism the most appropriate mechanism for this intervention?
 - a) Are there alternative mechanisms that would have been more appropriate?
17. Overall, what has worked well in your organization's engagement with AGRA MAP?
 - a) Is there anything that can be done differently to improve engagements?

Achievement of objectives

18. To what extent did your organization's intervention achieve its objectives?

Note to interviewer: one or more of the following probing questions should be selected based on the intervention type:

 - How has training smallholder farmers in post-harvest techniques and marketing helped farmers to participate in supply chains? Has this resulted in repeat/contract engagement with markets?
 - How has training and resources to smallholder farmers for collective marketing helped to reduce transaction costs and improve incomes?

- To what extent have delivery platforms for structured trading been effective (WRS, ICT)?
 - Did the approach of providing business development services (BDS) to SMEs result in smallholder farmers' linkages and growth? How many of the supported companies are still operating profitably?
- a) What factors enabled your organization to meet these objectives?
19. Based on this, do you think that your organization's intervention met the identified needs of targeted beneficiaries?
- a) Are there still needs that remain unmet?
- Note to interviewer: Probe needs identified during the Intervention design questions above.*
20. Were there any internal or external (e.g. political, cultural) factors that detracted from the achievement of these objectives?
- a) If yes, how did these events effect men and women beneficiaries differently, if at all?
21. Are you aware if any positive or negative unintended consequences have occurred because of MAP? If yes, please specify.

Implementation successes and challenges

22. Have intervention activities been implemented according to schedule?
- a) Have there been any unanticipated delays associated with implementation? If so, what have been the main reasons for these?
23. Have intervention activities been implemented according to budget?
- a) Have there been any unanticipated increases in costs during implementation? If so, what have been the main reasons for these?
- Gender-specific question, if relevant:*
24. To what extent has your intervention successfully reached female beneficiaries?

Sustainability considerations

25. To what extent are changes at the beneficiary [smallholder farmer, SME, etc] level expected to be sustained?
- a) What are the possible risks to the sustainability of these outcomes?
26. Has your organization adopted any new behaviours or practices based on your engagement with AGRA MAP? If yes, please describe.
- a) Has your organization scaled the intervention initially contracted through MAP?
27. Has your organization put any resources or structures in place to continue implementing your intervention post-exit?
- a) What type of assistance, if any, does your organization need to strengthen and continue service delivery?
28. What ecosystem features are most important for success and expansion of market access for smallholder farmers?

Closing

29. If you had a time machine and could go back to the start of the program, is there anything you would have done differently? Why?
30. Is there anything we have not covered that you would like to add?

INTERVIEW GUIDE – EXTERNALS

Hi, my name is _____. Thank you for taking the time to speak to us. As you know, we are conducting an end of program evaluation of AGRA's Market Access Program.

This interview is aimed at understanding the relevance and influence of AGRA MAP within a broader ecosystem, as well as any contextual factors that may have influenced the program's achievements.

Everything we discuss today will be kept strictly confidential. There are no right or wrong answers and nothing you say will be attributed to you in our report. We will be taking notes during the conversation to assist us with data analysis later, but these will not be shared beyond the Genesis team.

Do you have any questions for us, or are you happy for us to proceed?

Introduction

1. Please introduce yourself and your role at your organization.
2. What work does your organization do in the agricultural sector?
 - a) Do you have a specific focus in supporting market access for smallholder farmer produce?

Market access and barriers

3. What is your perspective on how the market infrastructure for agricultural produce has changed in [Burkina Faso/Ghana/Kenya/Mozambique/Tanzania] over the past few years?
 - a) Are there any noticeable changes at the smallholder farmer or value chain actor level (e.g. farmer organizations, traders and processors) surrounding:
 - the knowledge and/or use of structured trade systems (warehouse receipt systems, ICT applications for market prices, commodities exchanges)
 - post-harvest loss technologies
 - value addition services
 - b) What do you think are the reasons for these changes?
4. From your perspective, what is required to further promote efficient and inclusive markets for agricultural produce?
 - a) What are some of the key challenges still facing smallholder farmers in accessing markets?
 - b) How can these barriers be overcome?
 - c) Are there any barriers that are specific to women in particular? What is required to address the gender differentials?

AGRA Market Access Program

5. Are you aware of AGRA's Market Access Program? [*Interviewer: If no, explain the program*]
 - a) Are there any specific projects/partnerships that you are aware of?
 - b) What has been the nature of your engagement with AGRA/MAP, if any at all?
6. What do you think makes MAP unique in its design and approach in promoting inclusive markets for smallholder farmers, if anything?
7. Has MAP built the right synergies with other organizations working in this space (promoting reduction in post-harvest loss, promoting access to markets and policy advocacy)?
8. What are your overall impressions of MAP? Is there any evidence of its contribution to changes in improved market access for smallholder farmers?

Probe: adoption of structured trade systems, development of partnerships, new investments, knowledge and capacity building of value chain actors, policy and regulation changes?

9. Have there been any external factors (e.g. political, climate etc.) that might have influenced the outcomes of MAP? If, yes, how?
10. What do you think are the particular challenges a program like MAP would face in developing market infrastructure and promoting access to markets for smallholder farmers?

Sustainability considerations

11. What ecosystem features are most important for success and expansion of market access for smallholder farmers?
12. What is the likelihood that the changes that MAP has catalyzed will be sustained?
 - a) Are there any possible risks to the sustainability of MAP intervention outcomes?

DISCUSSION GUIDE – BENEFICIARIES - SMALLHOLDER FARMERS

Thank you for taking the time to speak to us. We are here to learn from you and your experiences as a farmer/SME/farmer group and working with XXX (AGRA partner), including how useful it has been for you and any benefits and challenges you have experienced.

All information you tell us will be kept strictly confidential. There are no right or wrong answers and nothing you say will be attributed to you. If you are happy, we will be taking notes during the conversation to help us keep track of what is discussed, but these will not be shared beyond our team.

Do you have any questions for us, or are you happy for us to proceed?

PROCEDURE FOR FGD

First, try ensure that the participating farmers are seated in a circle. Once all the participating farmers are all settled, you will be introduced by one of AGRA's grantee staff, after which you will begin by explaining the purpose of your visit:

"We have been contracted by AGRA to conduct an independent review of the Market Access Program. We would like to discuss a few things with you today about your farms. However, before we get started there are a few rules we all need to agree on:

- There are no right or wrong answers;
- We all respect each other and each other's opinions;
- Everyone agrees to be honest;
- Only one person can speak at a time;
- What is said here, stays here: i.e. no one should share information or opinions discussed here today with anyone else outside the group; and,
- If at any point during the conversation you are uncomfortable and wish to leave the discussion, you are free to leave."

To break the ice before the discussion begins, conduct the pocket voting exercise (Refer to Pocket Voting guide)

FGD QUESTIONS

Remind participants that this is going to be a discussion and you are only there to facilitate the discussion.

1. Are you satisfied with the performance of your farm?
[Probes: productivity, profitability, access to finance and markets]
2. If you were to dream about an ideal farm, what would it look like?
 - a) What is required to achieve this ideal farm?
3. What are the biggest challenges that you currently face with accessing markets for your agricultural produce?
[Probe with the women (if separate) if these are different to those faced by the men?]
4. Where/how do you access market information to guide you on what price or where to sell your produce?
5. What support and/or trainings have you received from [Insert name of grantee]?
 - a) How did you come to know about the support and/or trainings offered by [Insert name of grantee]?
6. What is the most significant thing that has happened as a result of the support and/or training from [Insert grantee name]?

- a) Has the support and/or trainings received from [insert grantee name] been beneficial? How?
[Probes: Has this support and/or training affected prices, ability to negotiate, post-harvest losses, value addition of produce, access to buyers, access to finance?]
7. Have you been able to access finance as a result of the project?
 - a) If so, what finance have you accessed?
 - b) What has been the result of this? *[Probes: secure credit to purchase inputs, loans, post-harvest storage technologies]*
8. Do you still apply and/or will you continue to apply what you have learned from [insert grantee name] in future? Why or why not?
9. Is there anything else you would like to share with us?

POCKET VOTING GUIDE FOR FGD

Procedure

Provide all FGD participants with five buttons and ask all FGD participants to come up one at a time and to put their buttons in the envelopes, using the number of buttons to rank each constraint in terms of importance it has to meeting their needs of their own farms. Remember to tell the participants that they are allowed allocate the buttons as they want to, if they want to, they can even put all five buttons in one envelope, if they feel that is the biggest constraint they face.

After the voting and FGD is complete count the number of buttons in each envelope in front of the group, record appropriately, and start the discussion on the constraints faced by smallholder farmers.

Constraints faced by smallholder farmers

The following are potential constraints faced by smallholder farmers that affect post-harvest loss, access to markets and realizing profitability from sell of agricultural produce that the AGRA MAP aims to address.

- Post-harvest loss from lack of knowledge and/or access to PHH technologies and storage facilities
- Lack of access to aggregation centers
- Access to finance for inputs, PHH techniques and storage equipment
- Access to aggregation centers to reduce transaction costs
- Poor market information on prices, linkages to buyers

DISCUSSION GUIDE – BENEFICIARIES – SMES

Thank you for taking the time to speak to us. We are here to learn from you and your experiences as a farmer/SME/farmer group and working with XXX (AGRA partner), including how useful it has been for you and any benefits and challenges you have experienced.

All information you tell us will be kept strictly confidential. There are no right or wrong answers and nothing you say will be attributed to you. If you are happy, we will be taking notes during the conversation to help us keep track of what is discussed, but these will not be shared beyond our team.

Do you have any questions for us, or are you happy for us to proceed?

Introduction

1. Please introduce yourself, your company and your role at the company.
2. What does your company do in the agricultural sector?

Context

3. What are the biggest challenges facing SMEs such as yourself in the agricultural sector?
[Probes: lack of entrepreneurial skills, lack of market information, access to finance, profitability in the sector]

Engagement with grantee intervention

4. Please can you explain your engagement with [insert grantee name]?
 - a) What support did you receive from [insert grantee name]?
 - b) How did you come to be involved with [insert grantee name]?
5. Did the training/services offered by [insert grantee name] help you and other SMEs address some of the challenges you face in the sector?
 - a) Do you still face any of the challenges you mentioned earlier? *[refer to challenges listed in 2 above]*
6. How has the training/services contributed to the performance of your organization? (i.e. turnover, business growth etc.?)
7. What worked well in your engagements with [insert grantee name]?
8. What did not work well in your engagements with [insert grantee name]?

Sustainability considerations

9. Are you still practicing what you learned through your engagement with [insert grantee name]?
 - a) Why/why not?
10. Is there anything else you would like to share with us?

DISCUSSION GUIDE – BENEFICIARIES – FARMER ORGANIZATIONS

Thank you for taking the time to speak to us. We are here to learn from you and your experiences as a farmer/SME/farmer group and working with XXX (AGRA partner), including how useful it has been for you and any benefits and challenges you have experienced.

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Do you have any questions for us, or are you happy for us to proceed?

Introduction

1. Please introduce yourself, your organization and your role at the organization.

Context

2. What are the challenges currently facing your farmers in relation to managing post-harvest losses and accessing markets?
[Probes: lack of market information, lack of organization, access to buyers, access to finance, lack of skills]

Engagement with grantee intervention

3. Please can you explain your engagement with [insert grantee name]?
 - a) What support did you receive from [insert grantee name]?
 - b) How did you come to be involved with [insert grantee name]?
4. Did the training/services offered by [insert grantee name] help your organization and/or your farmers address some of the challenges you face in the sector?
 - a) Do you still face any of the challenges you mentioned earlier? *[refer to challenges listed in 2 above]*
5. What worked well in your engagements with [insert grantee name]?
6. What did not work well in your engagements with [insert grantee name]?
7. How can the program (training, technology provision, PHL reduction methods) be improved to make it more responsive/relevant to the needs of smallholder farmers/farmer organizations?

Impact

8. What is the most significant change you have witnessed in the lives of i) farmers, and ii) you as a farmer organization as a result of the intervention in:
 - a) Reducing post-harvest loss
 - b) Developing aggregation centers
 - c) Increasing the value of targeted value chains
 - d) Increasing access to finance
 - e) Improved enabling environment through policy advocacy
9. Have there been any other changes as a result of the intervention?
10. Do you think it has affected men and women differently? If so, how?

Sustainability considerations

11. Are you still practicing what you learned through your engagement with [insert grantee name]?
 - a) Why/why not?
12. Is there anything else you would like to share with us?

DISCUSSION GUIDE – BENEFICIARIES – TRADERS OR PROCESSORS

Thank you for taking the time to speak to us. We are here to learn from you and your experiences as a farmer/SME/farmer group and working with XXX (AGRA partner), including how useful it has been for you and any benefits and challenges you have experienced.

All information you tell us will be kept strictly confidential. There are no right or wrong answers and nothing you say will be attributed to you. If you are happy, we will be taking notes during the conversation to help us keep track of what is discussed, but these will not be shared beyond our team.

Do you have any questions for us, or are you happy for us to proceed?

Introduction

1. Please introduce yourself, your company (if applicable) and your role at the company.
2. What does your company do in the agricultural sector?

Context

3. As a trader/processor, what are some of the opportunities for growth in your interaction with smallholder farmers?
4. What challenges do you face in your engagements with smallholder farmers?

Engagement with grantee intervention

5. Please can you explain your engagement with [insert grantee name]?
 - a) What support did you receive from [insert grantee name]?
 - b) How did you come to be involved with [insert grantee name]?
6. Did the training/services offered by [insert grantee name] help you and other traders/processors address some of the challenges you face in the sector?
 - a) Do you still face any of the challenges you mentioned earlier? *[refer to challenges listed in 2 above]*
7. How has the training/services contributed to the performance of your organization? (i.e. turnover, business growth etc.?)
8. What worked well in your engagements with [insert grantee name]?
9. What did not work well in your engagements with [insert grantee name]?
10. How can the program offering (training, technology provision, value addition methods) be improved to make it more responsive/relevant to the needs of traders/processors?

Sustainability considerations

11. Are you still practicing what you learned through your engagement with [insert grantee name]?
 - a) Why/why not?
12. Is there anything else you would like to share with us?

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