



## Behavior Change Outcomes for the Village Agriculture Coordinators Approach

### I. Introduction

#### 1.1 Overview

Since 2014, Amalima has used practical demonstrations and trainings to encourage the adoption of recommended agriculture practices and technologies. As of 2019, 3,556 Lead Farmers<sup>1</sup> have been trained; in turn, these Lead Farmers trained and supported other farmers to adopt new practices and technologies. In the first quarter of FY18, the program introduced the Village Agriculture Coordinator (VAC) approach. VACs were selected from Lead Farmers that displayed motivation, commitment, agricultural competency, training and facilitation skills, good communication skills and willingness to or participation in the AGRITEX Master Farmer training program.

The role of the VAC was to connect farmers with relevant government and community services, thereby increasing access to goods and services at the village level. VACs were also tasked to be drivers of behavior change as they engaged with farmers to identify barriers and facilitators to adoption of promoted practices and technologies. They continue to work with the farmers to explore ways to overcome those barriers and to use their facilitation skills to encourage adoption of key behaviors.

### 2. Research Objectives

The objective of this study was to use existing monitoring data to describe trends over time in selected villages with the goal of determining changes in the adoption rates of promoted agricultural practices and technologies. The study also utilized qualitative methodologies to explore how aspects of the VAC approach may have influenced adoption of promoted practices.

Key practices to be explored by the study were selected after considering those which were already tracked through dryland crop and livestock surveys. The following practices were selected because of their importance as intermediate outcomes needed in order to improve agricultural outcomes:

1. Use of improved or certified seed
2. Use of manure, compost and fertilizer
3. Minimum tillage (basins/ripping)
4. Use of commercial grain protectants
5. Sorting and grading of produce
6. Vaccination of livestock
7. Castration of cattle
8. Castration of goats or sheep

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<sup>1</sup> Lead Farmers are community volunteers trained in crop and livestock production technical elements and participatory training methods. They are a part of village extension system under the Ministry of Agriculture. Each LF trains and supports up to 10 farmers through sharing key practices in crop and livestock production. Amalima provided training materials in conservation agriculture, poultry production and livestock nutrition.

## 2.1 Research Objectives

1. To analyze existing project monitoring data on agricultural outcomes to assess year on year rates of uptake of promoted practices and technologies.
2. To explore how aspects of the VAC approach may have influenced adoption of the agricultural practices and technologies under assessment.

## 3. Methodology

Primary data was collected through focus group discussions (FGDs) with farmers and key informant interviews (KIIs) with VACs, Lead Farmers and AGRITEX officers to explore the quality of interactions between VACs and farmers. Primary data collection also looked at key motivators and barriers related to the improved practices that Amalima promotes. Four FGDs were conducted in each district (Tsholotsho and Gwanda) with both male and female farmers. There were eight total FGDs and a total of six key informant interviews that were conducted with AGRITEX officers, VACs and Lead Farmers. Secondary data from the Amalima outcome survey was used to triangulate the results of the primary data collection process.

## 4. Key Findings

### 4.1 Knowledge of VACs and their Role

From the FGDs, knowledge about VACs varied depending on the location. For instance, in one ward in Tsholotsho approximately 50% of the FGD participants did not know whom their VACs were. Whilst in another Tsholotsho ward and in the two wards of Gwanda, participants were able to identify their VACs by name. There was lack of clarity on the difference between the role of the VAC, and of Lead Farmers and Paravets. This could have been driven by the fact that the existing VACs were recruited from the latter two groups. The community's ability to identify the VACs could be an indicator of the frequency of interaction between the VACs and the farmers and therefore could have a bearing on the amount of exposure the farmers have to information on promoted practices. On average, where the VACs were active, the farmers mentioned that they met with their VACs once a month. When farmers could not identify the VAC but had knowledge of their existence, the farmers had not met with their VACs in at least three months.

### 4.2 Different Modes of Engaging with Farmers and Transferring Knowledge and Skills

The survey revealed that the VACs used different extension methodologies to further their roles. The VACs used the "group lecture" method to pass on information but also employed other methods such as practical demonstrations and field visits as a method of skills transfer. The farmers could detail the above mentioned methods and went further to explain that for group meetings, the VACs either called for a focused meeting to discuss a particular topic or took advantage of other community meetings where they were given a platform by traditional and political leaders to address the community on pertinent agricultural issues. This interaction between the community leadership and the VACs is an important component in the knowledge transfer system and shows that the community leadership appreciates the role that VACs play.

### 4.3 Improved Behaviors Promoted

Lead farmers, AGRITEX and the FGD mentioned that the VACs had promoted several good agriculture practices that are important to realizing improved productivity. The mentioned behavior change topics included breed improvement, conservation agriculture, good postharvest handling

practices, seed selection and storage, and improved housing for small livestock. It was also mentioned that in some instances the VACs encouraged farmers to join Village Savings and Loans (VS&L) groups and some of the VACs were also VS&L facilitators. In Tsholotsho the survey participants specifically mentioned training in toilet construction as one of the behaviors that was promoted by the VACS, whilst in Gwanda there was repeated mention of DRR training, specifically on early warning systems and gully reclamation.

#### **4.4 Improved Behaviors Reportedly Adopted**

While several behaviors were promoted as illustrated above, the farmers did not adopt all the promoted behaviors. Commonly mentioned as the most adopted practices were mechanized conservation agriculture and livestock supplementary feeding. This could be attributed to the late introduction of the VAC concept, which came in almost five years into the program.

#### **4.5 Improved Outcomes Resulting from Changed Behaviors**

FGD respondents mentioned some of the improved outcomes from the adopted practices such as increased yields, increased survival of young livestock, better prices for higher quality crops and livestock, increased incomes and increased collaboration with members of community groups for tackling common challenges.

#### **4.6 Reported Challenges with Improved Behaviors and Reported Solutions to some of the Challenges**

Respondents mentioned that some of the difficult behaviors for farmers to adopt were doing conservation agriculture basins and vaccinating livestock. The first was due to high labor demands and the second because of competing resource demands as this required procurement of vaccines from the VACs or agro-dealers. While acknowledging the labor demands, they did cite the use of mechanized conservation agriculture as a way of circumventing challenges with basin conservation agriculture and appreciated that the conservation agriculture techniques did result in increased yields.

#### **4.7 Suggestions for Improved Support to Increase Adoption and Maintenance over Time of Improved Behaviors**

The respondents did not suggest huge improvement in the way the VACs carried out their duties. They believed the VACS current work was adequate and effective. The respondents however mentioned that it would be helpful for VACs to have bicycles to help them get around more easily as some of the areas covered by the VACs were vast and sparsely populated. While the program's idea of introducing the VAC concept was to improve input supply, the respondents still felt that accessing inputs, such as improved seeds or vaccines for livestock, was generally still a problem. However, the respondents did not proffer solutions on how or what the VACs could do differently to facilitate increased access to inputs.

#### **4.8 Reported Challenges in the VACs Work and Suggested Solutions**

At the lead farmer level, the feeling was that the relationship worked best between lead farmers and the VACs when they were treated as equals and the lessons and efforts being two-way, with both raising issues and suggesting solutions. AGRITEX viewed the role of the VACs as foot soldiers who assisted the extension agents in reaching further into the community, having a closer contact with farmers and also supporting them in collecting reports, especially during the cropping season when reporting for AGRITEX is heavy.

#### **4.9 Sustainability of VACs Work after the Project**

When the research enquired about the sustainability of the VAC concept beyond the life of the Amalima program the respondents were optimistic. This is driven by the fact that the concept was from the project and did not exist within the AGRITEX structure prior to Amalima. The key informants and the VACs felt that they would continue working after the end of the program based on the strong relations and clear working arrangements with AGRITEX. The extension officers mentioned that they would support the VACs as they provided a key link between them and the farmers. In probing deeper on what would make VACs continue working and what support they might need, the responses from both FDGs and key informants were that, “VACs will keep working because they are passionate about helping the community”, and “VACs will keep working because we will continue to demand their services.” While these responses were encouraging, it was also noted that these were weak foundations for a longer term service to remain in place, as VACs need some kind of system to support them, to update their skills and knowledge, to keep making connections with input suppliers and other private actors, and also to hold them accountable.

### **5. Recommendations**

5.1 Behavior change is an important component in technology transfer and adoption. The VAC concept needs to be introduced early in the project and fully supported by seeking an early buy-in from AGRITEX to ensure that there is increased adoption.

5.2 Sustainability remains a challenge and it is important that the linkages between AGRITEX and VACs are strengthened. This can be done by highlighting to extension services how the VAC approach adds and simplifies the work of extension agents. The program believes that there is no need to formalize the VAC structure within AGRITEX but should seek a good working relationship that benefits the farmers, the VACs, the input suppliers and the extension agents.

5.3 The Amalima program has demonstrated that there is potential of VACs working as input aggregators. Thus, it is important to pilot a program to strengthen the link with input suppliers and ensure that the VACs benefit from discounts offered by the companies as a means of motivating them to mobilize and sell inputs.

### **6. Conclusion**

The VAC approach is built on the belief that that VACS can effectively disseminate innovations because they have an in-depth knowledge of local social settings and are known by other farmers and hence have their faith. Systematic utilization of VAC model can reduce extension workload and increase the reach of input suppliers in Amalima districts where extension workers have transport challenges and input suppliers have poor networks to access all the farmers.