

# **CAMFED's Agriculture Guide Programme:** Research to understand its impact in the context of the 2024 severe drought in Southern Africa

A CAMFED MERL (Monitoring, Evaluation, Research and Learning) Report: January 2025



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# INTRODUCTION

Since 2014, members of the CAMFED Association have been leading for climate resilience in their role as Agriculture Guides. In 2024, a devastating drought affected much of Southern Africa. CAMFED conducted qualitative research with Guides, Agripreneurs and the wider community in ten districts in Zambia and Zimbabwe to understand the impact of the drought and if, and how, the Agriculture Programme was helping to embed climate resilience. In this document we detail the findings which include: how the drought affected households; how the Agriculture Guide Programme helped individuals and their communities to adapt; and ways in which CAMFED plans to strengthen the Programme based on this learning. We demonstrate how the Programme; particularly the training and skills development, implementation of climate-smart techniques, advice and support on running a business, distribution of grants and farming inputs, and having access to a peer support network helped to reduce the negative effects of the drought and build climate-resilience in rural communities.

# **CAMFED's Agriculture Guide Programme**

In 2014, CAMFED piloted a breakthrough initiative to train young women across Southern Africa to become Agriculture Guides - champions of climate-smart agriculture. Young women from Tanzania, Zimbabwe and Zambia were supported to undertake intensive training in climate-smart agriculture. Upon returning to their communities they established demonstration farms and organised community meetings, school outreach and peer-to-peer mentoring to support community members to improve the productivity of their smallholdings and build resilience to climate change. The success of the pilot led to scale. In 2019, CAMFED's Agriculture Guide Programme was awarded a UN Global Climate Action Award at COP25 in Madrid. The award recognises some of the 'most practical, scalable and replicable examples of what people across the globe are doing to tackle climate change.'<sup>1</sup>

Today, CAMFED's Agriculture Guide Programme is active in Ghana, Malawi, Tanzania, Zambia, and Zimbabwe. There are three priority goals:

- To support young women to build thriving livelihoods through sustainable agribusiness
- To improve community climate resilience via young women's leadership
- To improve local food security, including home-grown school meals

By the end of 2024, **2,750** CAMFED Association members had trained as climate-smart Agriculture Guides. Agriculture Guides are young women who have completed school with CAMFED's support and who have expertise in sustainable agriculture. Working with communities to implement low-cost, sustainable farming techniques, Agriculture Guides train smallholders in sustainable farming methods, supporting their communities to adapt to the effects of climate change and improve yields. They uphold traditional knowledge and techniques, combined with innovation, using materials readily available in local communities to implement climate-smart techniques. Collaboration and co-creation with stakeholders including Ministry officials, agricultural specialists, farmers, and local community members, has been central to ensuring CAMFED's Agriculture Guide Programme is locally relevant and shaped by young women and their communities. Today Agriculture Guides have reached more than **150,000 people** with vital information and skills to build climate resilience.

# Context of the 2024 drought

In February 2024, the government of Zambia declared a National Crisis and Emergency<sup>2</sup> due to the ongoing drought conditions resulting from the El Niño-induced weather pattern changes experienced in the region's typical wet season. At the time, the government reported that nearly 1 million hectares of maize had been destroyed, over half of the country's maize yield<sup>3</sup>.

In the following months, due to the severe drought, a State of Disaster was declared in other Southern African countries. In April 2024, Zimbabwe's President Emmerson Mnangagwa declared a national

<sup>1</sup> https://unfccc.int/news/un-awards-ceremony-celebrates-innovative-climate-solutions

 $<sup>2\</sup> https://www.cabinet.gov.zm/wp-content/uploads/2024/04/Statement-of-Drought-by-the-President-Mr.-H.H-2024.pdf$ 

<sup>3</sup> https://theconversation.com/dry-weather-hits-southern-africas-farmers-putting-key-maize-supplies-at-risk-how-to-blunt-the-impact-224974

disaster after the drought destroyed approximately half of the country's maize production<sup>4</sup>. The drought significantly increased food prices with annual inflation in Zimbabwe reaching 55% in March 2024 - a seven year high<sup>5</sup>.

In the drought-affected countries in Southern Africa, a drastic reduction of crop yields resulted in an estimated 20 million people experiencing a crisis level of food insecurity at the time<sup>6</sup>. Food shortages, compounded by rising inflation and ongoing cholera outbreaks, worsened widespread challenges for nutrition, health, hygiene, school attendance, gender-based violence, and child marriage.<sup>789</sup>

An impact assessment, which involved a household survey, was conducted by the Food and Agriculture Organisation of the UN in May 2024, to investigate the impacts of El Niño on agricultural production and livelihoods in Zimbabwe. The assessment found that 84% of households reported a drastic reduction in crop harvests and 98% cited that they would need support in the 3-6 months following the survey<sup>10</sup>. In September 2024, UNICEF detailed that 7.6 million Zimbabweans (50% of the total population) were facing food insecurity. Of this 7.6 million, 5.9 million reside in rural areas<sup>11</sup>.

## Overview of the qualitative research

In August 2024, CAMFED conducted a study which sought to explore the experiences of, and responses to, the prolonged drought through investigating the impact on livelihoods of rural women and their surrounding communities, with particular attention paid to the role of the CAMFED Agriculture Guide Programme.

A qualitative approach was selected as the most appropriate to explore the complex and sensitive issues of the drought and its impact on some of the most marginalised young women and communities. Qualitative research provides an opportunity to explore and map a variety and depth of experiences, attitudes, and perceptions. Context-specific, highly detailed rich descriptions gathered through such research can provide valuable insights and contribute to evidence-based programmatic learning.

The study brought together findings from Focus Group Discussions (FGDs) with Agriculture Guides, Agripreneurs, and male and female community members across seven districts of Zambia and three districts of Zimbabwe, all heavily impacted by the drought. In total, 55 participants were reached in Zambia (48 female, 7 male) and 63 in Zimbabwe (61 female, 2 male). Focus Group Discussions were led, recorded, and later translated by a team of CAMFED MERL (Monitoring, Evaluation, Research and Learning) staff in Zambia and Zimbabwe.

To meet this research purpose, the study was designed to understand feelings of preparedness, the role of Agriculture Guides and Agripreneurs in the community drought response, and how useful the Agriculture Guide Programme was in supporting participants with their response to the drought. Key research questions explored included:

- How did the drought impact community members (Agriculture Guides, Agripreneurs, and communities)?
  - What was the overall experience of the drought? How did the drought affect food security, farming, and businesses? How did these effects differ between between men and women, girls and boys?
- How did participation in the Agriculture Guide Programme change the way community members experienced the drought?
  - How prepared did communities feel for the drought, including access to information? Was the oncoming drought considered in decision making for crops, livestock, and businesses?

<sup>4</sup> https://www.bbc.co.uk/news/world-africa-68721078

<sup>5</sup> https://www.bbc.co.uk/news/world-africa-68736155

<sup>7 &</sup>quot;Zambia: Drought Response Appeal May 2024 - December 2024 (May 2024)". UNOCHA, 7th May 2024, https://www.unocha.org/publications/report/zambia/zambia-drought-response-appeal-may-2024-december-2024-may-2024#:~:text=These%20dry%20conditions%20 have%20resulted,Western%20provinces%20of%20the%20country.

<sup>8</sup> https://www.unocha.org/publications/report/zimbabwe/zimbabwe-drought-flash-appeal-may-2024-april-2025-may-2024

<sup>9</sup> https://www.unicef.org/documents/zimbabwe-humanitarian-situation-report-no-6-multi-hazard-31-august-2024

 $<sup>10\</sup> https://relief we b. int/report/zimba bwe/zimba bwe-el-nino-impact-assessment-highlights-may-2024$ 

<sup>11</sup> https://reliefweb.int/report/zimbabwe/unicef-zimbabwe-humanitarian-situation-report-no-5-multi-hazard-01-31-july-2024

- How have communities responded to the drought? How has this informed future plans, including participation in and interaction with the Agriculture Guide Programme?
- What can we learn to improve the Agriculture Guide Programme in the future?

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- In what ways were interactions with the Agriculture Guide Programme useful during the drought?
- Should any information be added to the Agriculture Guide Programme curriculum?
- How can the Agriculture Guide Programme continue to support communities during climate shocks?
- In addition to the primary focus of this research, CAMFED looked at evidence relating to particular features of the programme:
  - Have Agriculture Guides been able to create change in the behaviour or practices of Agripreneurs and wider community members? In what ways, and to what extent?
  - What was the impact of the different elements of the Agriculture Guide Programme?





# A) Effects of the drought on Agriculture Guides, Agripreneurs and the wider community

The 2024 drought had both direct and indirect adverse effects on the farming activities and lives of Agriculture Guides, Agripreneurs, and other community members participating in the Agriculture Guide Programme.

Themes mentioned in the FGDs, such as farming challenges and its impact on malnutrition, inflation, and health concerns, were echoed in studies published by both intergovernmental and non-governmental organisations, including but not limited to UNOCHA's Drought Response Appeal<sup>12</sup> and the humanitarian impact of El Niño on Southern Africa<sup>13</sup>, and the IFRC's Emergency Appeal for Drought Response in Zambia.<sup>14</sup>

#### Yields and farming outcomes

Discussions with Agriculture Guides, Agripreneurs, and community members in all districts both in Zambia and Zimbabwe indicated that the drought had direct adverse effects on crops and farming outcomes. Limited rainfall negatively impacted the ability of farmers in all participant groups to propagate and grow a variety of crops, resulting in reduced yields. In many cases, Agriculture Guides, Agripreneurs, and community members reported widespread failure of crops. The scale of the reduction in yields varied by district. Agripreneurs in Kaoma and Mumbwa, Zambia, community members in Kalabo, Zambia, Agriculture Guides in Shangombo, Zambia, and community members in Bikita, Zimbabwe, for example, all mentioned devastating harvest loss from their gardens or fields. In other districts such as Mpika in Zambia and Kwekwe in Zimbabwe, Agriculture Guides, Agripreneurs, and community members spoke about the survival specifically of their early maturity and small grain crops grown in their gardens, often provided by the Agriculture Guide Programme. Small grain crops are flexible in their growth and yield capacity, able to adapt their development to seasonal variations in the availability of nutrients and water<sup>15</sup>. As such, planting small grain crops in semi-arid regions prone to heat and water stress is seen as an effective adaptation measure with the potential to stabilise household food security<sup>16</sup>.

The disparity in experiences is influenced by intersecting factors including geographical variation and poverty levels, however, participants themselves were aware of the link between improved yields and the practice of certain climate-smart techniques. For example, an Agripreneur in Kaoma, Zambia, who had not harvested any produce, explained that she hadn't tried to use techniques such as drip irrigation until after the onset of the drought, once her crops had already been affected. Likewise, community members who spoke of widespread crop failure, said they had yet to implement the techniques they had learned about from the Programme. In these examples, those affected now realised the importance of using these climate-smart techniques at an early stage.

#### Loss of livestock

The drought had both direct and indirect effects on livestock farming. Many community members, Agriculture Guides and Agripreneurs in both Zambia and Zimbabwe highlighted that the lack of water resulted in limited grasses for grazing and stunted the growth of crops used for feed. For example, an Agriculture Guide in Mpika, Zambia, explained that livestock farmers in their community were affected

<sup>12 &</sup>quot;Zambia: Drought Response Appeal May 2024 - December 2024 (May 2024)". UNOCHA, 7th May 2024, https://www.unocha.org/publications/report/zambia/zambia-drought-response-appeal-may-2024-december-2024-may-2024#:~:text=These%20dry%20conditions%20 have%20resulted,Western%20provinces%20of%20the%20country.

 <sup>13 &</sup>quot;The Humanitarian Impacts of El Niño in Southern Africa - September 2024". UNOCHA, 19th September 2024, https://www.unocha.org/publications/report/mozambique/humanitarian-impacts-el-nino-southern-africa-september-2024.
 14 "Zambia: Drought". IFRC. 27th May 2024. https://www.ifrc.org/emergency/zambia-drought.

https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=47628#:~:text=Average%20Water%20Use%20Throughout%20the,depend-

ing%20on%20crop%20yield%20potential. 16 https://link.springer.com/referenceworkentry/10.1007/978-3-030-45106-6\_254#:~:text=Small%20grains%20have%20always%20been,of%20 the%20sub%20Saharan%20region

due to lack of water and fields for grazing. The decreased water levels in wells and streams resulted in dehydration, malnourishment, and weight loss, as well as the spread of diseases and death amongst livestock. Several discussions mentioned the loss of livestock, with one Agripreneur in Mafinga, Zambia, reporting that she had lost half of the cattle she owned. The malnourishment and loss of livestock resulted in shortages of manure, impacting local farming methodologies (Male Community Member, Kalabo), as well as leading to shortages of milk (Agriculture Guide, Shangombo, Zambia).

#### Financial strain and business impacts

In addition to crop failure, increases in the cost of food and overall living essentials caused great financial strain, and had adverse impacts on the business outcomes of those who own and operate businesses. For example, Agripreneurs in Bikita, Zimbabwe, reported challenges with customers buying items on credit and then being unable to pay them back. Business failures and depleted income decreased opportunities among local community members and participants of the Agriculture Programme to grow and develop their businesses, with some community members and Agripreneurs having been forced to stop their business activities. One male community member in Zambia stated that people had no money to buy his carpentry goods, as in times of financial hardship, families in his community needed to prioritise essentials such as maize.

#### Food insecurity

Many participants in both Zambia and Zimbabwe highlighted that eating habits changed drastically in their communities, with most households only managing one meal per day and some going days without eating (illustrated by, for example, Agriculture Guides in Lavushimanda, Zambia and Agripreneurs in Kwekwe and Bikita, Zimbabwe, and community members in Bikita).

In addition to the heightened food insecurity experienced by those engaged in subsistence farming, participants also highlighted increased food insecurity for those normally able to purchase food for consumption due to increased prices. The depletion of local and national food supplies created exponential demand, resulting in higher prices in local markets and shops. The cost of food became very expensive compared to previous years, preventing many community members from buying food at the new inflated rates (Agripreneur, Shangombo). Almost all groups shared that food prices had increased, and many noted that maize had become expensive resulting in difficulties purchasing enough food for their households.

Beyond the reduction in quantity of food consumed, participants also experienced a reduction in the quality of food consumed. As a result of the increased prices of food and reduced crop yields, Agripreneurs and Agriculture Guides in Zambia and Zimbabwe shared challenges with the consumption of a varied diet. Many highlighted that their household gardens faced challenges in producing vegetables and that other sources of nutritional diversity were inaccessible. Other types of food, such as fish, were scarce and expensive compared to their usual abundance in some districts, such as Kalabo, Zambia. With the reduction in the diversity of food available for consumption, sole reliance on maize-based staples such as sadza and mealie-meal increased, despite an overall shortage of maize. As emphasised by Agriculture Guides in Shangombo, Zambia, many districts had no alternative source of food aside from maize as a result of the drought. In Zimbabwe, some Agriculture Guides and Agripreneurs reported that communities had received some maize and wheat from social welfare programmes, however, this was not provided to all; in Mudzi, baobab fruit was being used by Agriculture Guides for porridge in the absence of maize.

The reduction in the quantity and quality of food consumed had harmful impacts on the health of the community. Pointing to the need for community members to scavenge for wild fruits and unsafe drinking water, Agriculture Guides in Zambia shared that these activities have had harmful health implications, causing stomach pain, diarrhoea, and constipation, and also contributing to malnutrition and a lack of sleep. This was also corroborated by other FGD participants. Female community members in Kalabo, Zambia detailed that their households were experiencing stomach-related illnesses as a result of the wild foods they were eating. Despite knowledge of the link between diet quality and health, acting on this knowledge was difficult in the face of financial and agricultural limitations resulting from the drought.

#### Additional impacts on health and welfare

The drought's impact on local livelihoods and the economy had knock-on effects on various communities' health, welfare, and education norms and systems. Symptoms of illness became more frequent and severe, such as headaches, flus, stomach pain, diarrhoea, dehydration, insomnia, and the exacerbation of chronic issues. Mental health concerns became apparent within communities due to increased stress and anxiety especially amongst the Agripreneurs and other small-scale farmers who depended on farming for a living (Agripreneur, Mafinga).

#### Effects on education and girls and women in particular

The drought impacted school attendance for children in farming communities; reduced school attendance and increases in school dropouts were reported by all three participant groups.

Participants in the FGDs in both Zambia and Zimbabwe reported witnessing high levels of school-going children dropping out of school due to hunger and financial hardships experienced by their families. For those attending school, there was mention of hunger impacting their ability to study, sometimes not having eaten for days. In some areas, high levels of absenteeism were connected to children leaving to engage in income generating activities (such as gold panning in Mudzi and Kwekwe districts in Zimbabwe). Agriculture Guides in Lavushimanda, Zambia, and community members in Kwekwe, Zimbabwe, reported an increase in early marriages among girls in their communities, as a perceived coping mechanism in response to hunger and poverty.

The impacts of the drought were noted by female participants as being markedly gendered. While all participants highlighted food insecurity and hunger as a major repercussion of the drought, it was particularly emphasised by female community members.

The discussion of how food insecurity, hunger, community health, wellbeing, and education affected community members was discussed far more frequently and extensively among female participants in comparison to male participants. Women explained how they had, in many ways, borne the brunt of the impact, often due to their role as primary caregivers, typically responsible for feeding the family, and felt additionally burdened by the need to spend more time travelling longer distances to collect water. This was mentioned in both Zambia and Zimbabwe. This observation aligns with existing research around typical social positions and responsibilities of women, who are often in charge of family and household care and management. In comparison to men, women disproportionately complete more unpaid domestic labour within the household, such as childcare and cooking, across low-income countries worldwide<sup>17</sup>. In households where women are the primary caretakers for their children and families, drought and hunger create added stress when sourcing water and food and heighten the risk of gender-based violence, exploitation, and abuse.<sup>18</sup>

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"Unpaid care and domestic work: Who it affects and why it's a problem". ActionAid, https://powerproject.actionaid.org/module/un-paid-care-and-domestic-work/#:~:text=Women%20continue%20to%20work%20more,R's%20approach%20to%20these%20issues.
 "Zambia: Drought Response Appeal May 2024 - December 2024 (May 2024)". UNOCHA, 7th May 2024, https://www.unocha.org/publications/report/zambia/zambia-drought-response-appeal-may-2024-december-2024-may-2024#:~:text=These%20dry%20conditions%20 have%20resulted,Western%20provinces%20of%20the%20country.

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# **B) Impact of the Agriculture Guide Programme**

In both Zimbabwe and Zambia, there was clear evidence that various components of the Agriculture Guide Programme had helped to lessen some of the negative effects of the 2024 drought. Components such as agricultural knowledge acquired during Agriculture Guide sessions, delivery of specific climate-smart techniques, distribution of grants, business development assistance, and peer network support were all highlighted as valuable resources in the face of the drought.

#### Adoption of Climate-smart Techniques

Agriculture Guides, Agripreneurs, and community members all reported practising a range of climatesmart techniques taught and encouraged by CAMFED's Agriculture Guide Programme as part of their everyday agricultural practices. Participants shared varying levels of success with the implementation of such techniques to minimise the negative impact of the drought on farming outcomes. Participants in all three stakeholder groups in both countries, however, highlighted how a few techniques in particular had been effective in both preparing for and adapting to the drought, and in some cases, adoption of climate-smart techniques was directly attributed to the CAMFED Agriculture Guide Programme.

While discussing future plans, male community members in Zambia emphasised their interest to replicate the work being done by Agripreneurs because of their farming success during the drought. One male community member from Kalabo, Zambia, expressed interest in using such techniques after seeing the success that Agripreneurs had had with their cassava plants.

Several participants emphasised being able to successfully use **alternative water management** techniques during prolonged dry periods. Drip irrigation was noted as a popular and effective method used by Agriculture Guides, Agripreneurs, and community members, specifically for smaller plots and gardens. In Zambia, several Agripreneurs, for example, shared that they had been able to use drip irrigation to successfully grow crops for household consumption in their garden, which was crucial during a time of heightened food insecurity. Agripreneurs in Mafinga District also shared how they worked with the members of the community to set up a drip irrigation system and invest in the production of beans using this irrigation system, allowing them to successfully minimise the loss experienced with the failure of their maize crop.

Other techniques promoted by the Agriculture Guide Programme, such as intercropping, crop rotation, crop diversification, producing organic pesticides and fertilisers, and mulching, were also commonly cited as relevant and useful methods to mitigate and adapt to changes posed by climate-related challenges, including the 2024 drought.

Agriculture Guides and Agripreneurs in both Zambia and Zimbabwe, for example, frequently reported success with **alternative methods of pest control** that they had learned through the Agriculture Guide Programme, such as combining ash and chilli to control stalk borers and army worms. Applying such techniques successfully tackled challenges experienced with the outbreak of pests thriving in dry conditions. One Agripreneur in Zambia stated that she would not have known this if it wasn't for attending sessions with her Agriculture Guide.

Although finding manure was considered a challenge due to livestock malnutrition, the use of cow dung to **make organic fertiliser** was considered helpful by participants in both countries as it helped to reduce expenses and produce healthier crops while not relying on high-priced inorganic fertilisers available on the market.

In Zimbabwe, Agriculture Guides, Agripreneurs, and community members frequently spoke of **planting drought-resistant and small grain crops** which provided higher yields and improved crop survival. Agripreneurs often mentioned they had received these seeds directly from AGRITEX (Department of Agricultural, Technical and Extension Services), which the CAMFED Program helped link them to, and in some instances from the Agriculture Guide Programme. In 2020, the Zimbabwe Government introduced the Pfumvudza Conservation Farming Programme, supporting 1.6 million vulnerable households to produce maize, sunflowers, small grains and soya bean. The programme, which

promotes Conservation Agriculture (CA) principles such as zero-tilling, planting in basins, and mulching to improve soil and conserve water<sup>19</sup>, provides beneficiaries with seeds and fertilisers<sup>20</sup>. Agripreneurs in Mudzi, Agriculture Guides in Bikita, and community members in Bikita mentioned benefitting from the Pfumvudza Conservation Farming Programme which had in many cases helped to reduce yield losses.

In Zambia, while some Agripreneurs and Agriculture Guides mentioned planting drought resistant crops which had enabled them to successfully build resilience to drought impacts prior to the drought, access to drought-resistant seeds was highlighted as a significant challenge due to financial constraints. Despite knowledge of planting these seeds, cost was a key barrier emphasised particularly by Agriculture Guides and community members in Zambia.

Several participants indicated that they **stored food and water** prior to the drought which they could rely on in periods of extreme water and food scarcity. In many of the districts, particularly across Zimbabwe, almost all participant groups spoke of having some level of food and water reserves. Agriculture Guides in Mudzi, Zimbabwe, and Agripreneurs in Mafinga, Zambia, discussed how their households had stored maize from the previous farming seasons which they now relied on for their consumption and feeding livestock (although this was not the case in all communities). In Mudzi, Zimbabwe, Agriculture Guides specifically credited the Agriculture Guide Programme with helping them to reserve food supplies. However, whilst having reserves proved incredibly useful, they were unable to sustain communities in the longer term.

Community members in some districts explained that the Agriculture Guides had advised them to dig wells and that these had worked well in some places, however, had dried up in others due to the drought. Agriculture Guides and community members in Kwekwe, Zimbabwe, and Agripreneurs in Mafinga, Zambia, also mentioned that they had collected and stored rainwater in sealed basins prior to the drought which they later used for household and livestock consumption.

The **benefits of crop diversification** were understood by many Agriculture Guides, Agripreneurs and community members. Community members and Agriculture Guides in Zambia spoke about how diversifying from maize farming proved beneficial in the face of acute food shortages, when many districts were heavily reliant on maize. Widespread decline in maize production, a staple food in both countries, resulted in a drastic reduction of crop yields; maize production was almost 50% below average in Zambia<sup>21</sup> and 60% below average in Zimbabwe<sup>22</sup>, caused by rainfall deficits and prolonged high temperatures associated with the El-Nino induced drought.

#### Awareness and access to information

Access to information prior to the onset of the drought was considered significant in some instances. Having access to information enabled participants to plan ahead. In some cases, Agripreneurs and Agriculture Guides, for example, discussed how after learning about the oncoming drought, they were able to successfully change their seed types. Lack of access to information was more prevalent in Zambia, with many Agriculture Guides, Agripreneurs, and community members who reported being heavily impacted by the drought sharing that they had no idea the drought was coming and felt completely unprepared. It is important to note that Zambia was impacted slightly earlier in the year; a National Crisis and Emergency was declared in Zambia in February and was later declared in Zimbabwe in April, which likely had an effect on variation in levels of preparedness.

In contrast, participants from all FGDs in Zimbabwe mentioned benefitting from reliable information concerning the drought and how to prepare for it. This information was received typically by radio but was also shared by Agricultural Officers and CAMFED sources (including District Operation Officers, Agriculture Guides, and via WhatsApp groups). For example, one female community member stated that "before the rain season came, we were told to plant early maturity crops because we heard from AGRITEX officers and Agriculture Guides that there was going to be insufficient rainfall."

<sup>19</sup> https://www.future-agricultures.org/blog/can-the-pfumvudza-conservation-agriculture-programme-deliver-food-security-in-zimbabwe/ 20 https://sdgs.un.org/partnerships/zimbabwe-pfumvudza-programme

<sup>21</sup> https://www.fao.org/giews/countrybrief/country.jsp?code=ZMB

<sup>22</sup> https://www.fao.org/giews/country/brief/country.jsp?code=ZWE&lang=ar#:~:text=Drought%20severely%20affected%202024%20cereal%20 production,-An%20intense%20and&text=The%20maize%20crop%20was%20particularly,critical%20vegetative%20and%20flowering%20stages

#### Role of Agriculture Guides as leaders and climate champions

Evidence from discussions with Agriculture Guides indicate that they played an important advisory role in their communities before and during the drought. Through regular sessions both with Agripreneurs and with the wider community, Agriculture Guides shared strategies to deal with the adverse impacts of the drought on farming outcomes. Meetings were set up with community members in response to the drought to advise on drought resistant crops and crop diversification. Agriculture Guides pointed to the confidence they had in their own knowledge, highlighting that they saw themselves as role models through the skills they were gaining from their role as an Agriculture Guide.

Despite the previously mentioned gendered impacts of the drought, in many districts in both Zambia and Zimbabwe, Agriculture Guides were positive about the role of women in farming and business, acknowledging how the Agriculture Guide Programme had improved their circumstances, shifting typical gender norms as women felt encouraged and supported to pursue pathways towards independence and self-reliance.

Several Agriculture Guides and Agripreneurs emphasised the value of having a network of other young women CAMA members to communicate with and share challenges and solutions via meetings and WhatsApp groups. In addition to cascading support and knowledge and receiving drought-specific information from these groups, there were instances of CAMA clusters coming together to work with the community to find solutions to the issues and limit the devastation caused by the prolonged drought. In Bikita, Zimbabwe, for example, young women formed a group within their CAMA cluster to build water harvesting holes in the community. Community members explained how they had helped each other to dig water wells at each homestead. Similarly, in Zambia, Agripreneurs in Mumbwa had come together to purchase pipes and sprinklers to support irrigation of larger fields.

The Agriculture Guide Programme aims to provide linkages to stakeholders beyond CAMFED. Two Agripreneurs and one Agriculture Guide specifically credited the Agriculture Guide Programme for connecting them to support from other groups and departments, such as AGRITEX in Zimbabwe, the country's main agricultural extension agency.

#### Business ownership

For many Agriculture Guides and Agripreneurs, business ownership and the skills taught through the Programme had been valuable in the face of the drought. While all stakeholders highlighted the negative impact widespread crop failure and lack of disposable income had on their businesses, many participants conveyed how their businesses were helping them to survive, sharing that by investing time into their business they were successfully able to limit effects of the drought on food security. While those running businesses reported that they experienced reduced profits because of the drought, several participants were still able to use their business income to sustain themselves and purchase food for consumption. Many Agriculture Guides and Agripreneurs shared that they diversified their business products and services to earn a small income and cushion the financial challenges created by the drought. For example, in Mumbwa and Mafinga districts in Zambia, Agriculture Guides and Agripreneurs discussed having multiple sources of income. An Agripreneur in Mumbwa explained how she had incorporated poultry farming into her business which had previously focused solely on maize and another detailed how she had used her skills in braiding to earn an income during the drought. Similarly, an Agriculture Guide in Mafinga mentioned selling fish in addition to growing and selling vegetables. An Agriculture Guide in Mudzi, Zimbabwe, was involved in brick moulding and community members in Bikita bought and sold clothes and brewed beer for additional income.

#### Grants and other direct support

Direct support from CAMFED was emphasised by many participants. In both Zambia and Zimbabwe, Agripreneurs mentioned receiving grants prior to the onset of the drought, as did Agriculture Guides in Zimbabwe. Many Agriculture Guides and Agripreneurs highlighted how grants had helped to grow their business, through purchasing livestock and seeds both for individual farmers and for groups. In addition, in Zimbabwe, Agriculture Guides and Agripreneurs received seeds for small grain crops from the Programme. In Bikita District, Zimbabwe, members of the community also reported receiving support from Agriculture Guides in the form of seeds, chickens, and vegetables.

# Challenges and opportunities to further strengthen the Agriculture Guide Programme

There was clear evidence that various components and techniques that had been taught by the Programme were well understood, had really worked in practice, and were welcomed by the participants. While many participants discussed their successful implementation of climate-smart techniques, there were also limitations. A commonly cited challenge with the implementation of climate-smart techniques was the issue of scale; many Agripreneurs and Agriculture Guides shared that they struggled to implement climate-smart techniques when they were farming on larger plots. Agriculture Guides in Mpika highlighted that it was challenging to implement drip irrigation on their maize fields because they were larger fields and therefore required bigger irrigation equipment. This was corroborated by Agripreneurs in Mumbwa and Mafinga districts in Zambia, and Agriculture Guides in Bikita, Zimbabwe, who detailed that they had limited success with drip irrigation because they were farming on large fields.

Interestingly, some Agripreneurs in Zambia were aware of water management strategies for bigger farms – those in Mafinga emphasised that the Programme had taught them new climate-smart techniques to manage large farms using drum systems. This awareness indicates that strategies for water management on a larger scale are being taught as part of the Programme, but these techniques may need to be adapted or emphasised more as part of the training.

Another prominent challenge with the implementation of climate-smart techniques was simply the scale of the drought. For many parts of Southern Africa, the drought signalled one of the worst mid-season dry periods in 100 years<sup>23</sup>, exhibiting extremely low water levels. As such, many participants shared that their fields and land were just too dry - there was not enough water to successfully distribute using drip irrigation and often community water sources had completely dried up because of the drought. In many cases, Agriculture Guides and Agripreneurs spoke of how applying certain climate-smart practices wasn't possible due to the lack of water.

As discussed, access to farming inputs, such as seeds, was emphasised as a challenge due to costs and availability. This was a particular challenge highlighted in discussions in Zambia, where Agriculture Guides, Agripreneurs, and community members mentioned difficulties in accessing drought-resistant and early maturity seeds due to financial constraints.

Despite such challenges, Agriculture Guides and Agripreneurs in all districts were very clear about their intentions to continue engaging in the Programme, citing the value of knowledge acquired. The recognition of these benefits, largely targeted at women, were echoed by the Agripreneurs and lay behind their requests for expanding the Agriculture Guide Programme. Agriculture Guides and Agripreneurs often spoke of the need to share knowledge on climate-smart techniques more widely and to increase preparedness in the face of major climate events. Likewise, community members showed respect for the Agriculture Guides and demonstrated a continued desire to learn from the Programme.

 $<sup>23\</sup> https://www.unocha.org/publications/report/mozambique/humanitarian-impacts-el-nino-southern-africa-september-2024 {\citext=Southern % 20Africa % 20 has % 20 experienced % 20 the, season % 20 rainfall % 20 in % 20 40 % 20 years.$ 

# How CAMFED plans to act on this evidence

- Continue to deliver and expand the Agriculture Guide Programme, which includes training sessions, grants, business support, peer network, etc. Participants frequently praised the success of the Programme in enabling them to build resilience and adapt to climate shocks and asked for the Programme to be scaled to reach more young women and community members.
- Continue to emphasise business skills as an important technique for building resilience. Evidence
  from all discussions indicate that business and entrepreneurial skills were particularly useful in
  the context of the extreme drought and allowed individuals to create a buffer against extreme
  food insecurity. Agriculture Guides can increasingly collaborate with Business Guides to deepen
  business skills with their peer groups, facilitated through combined review meetings where
  feasible. The Enterprise Development team and District Business Committees should also continue
  to provide focused support to the agripreneurs.
- Continue and amplify partnership with pivotal agricultural extension agencies such as the Department of Agricultural Technical and Extension Services (AGRITEX) in Zimbabwe and Department of Agriculture's Agricultural Extension Officers Zambia (AEOZ) in Zambia to ensure regular and timely access to drought resistant seeds and other farming inputs.
- In both countries, some Agriculture Guides requested additional demonstration plots and equipment to conduct practical sessions. Access to demonstration plots could also support continued uptake of climate-smart techniques by wider community members. CAMFED continues to support new demonstration plots as funding is secured for these.
- Further investigate and implement strategies for improved access to weather and drought information. Increase communication on warnings and advice prior to climate-related disasters in rural areas where access to information is uneven and sometimes limited. Information dissemination strategies can be incorporated as a specific component of training for Agriculture Guides.
- CAMFED will create supplementary modules specifically focused on drought preparedness techniques; drawing attention to all relevant content within existing training, and other climatic effects such as managing flooding.
- Provide more information on how to implement climate-smart techniques when farming on a larger scale, such as water management strategies. Some participants shared that they struggled to successfully implement climate-smart techniques because they were farming on a large scale. This points to the need to highlight components in the Agriculture Programme that provide the support necessary to adapt larger scale farming to climate shocks during the training.

# CONCLUSION

The 2024 drought had widespread and devastating effects on livelihoods and food security across Zambia and Zimbabwe. Focus Group Discussions with Agriculture Guides, Agripreneurs, and community members in both countries illustrated how the drought had negatively impacted the farming and business outcomes of almost all participants. The prolonged period of limited rainfall and high temperatures severely impacted crops, in some cases resulting in complete failure of participants' yields. In addition, various participants from all stakeholder groups noted the significant effects the drought had on livestock, citing dehydration, malnourishment, disease, and death among cattle.

These detrimental outcomes both directly and indirectly resulted in a reduction in the quality and quantity of food consumed, as well as affecting the health and wellbeing of participants and their surrounding communities. Furthermore, Agriculture Guides, Agripreneurs, and community members reported an increase in school dropouts and early marriages, particularly among girls. Participants in both Zambia and Zimbabwe noted the gendered aspect of many of these effects within their communities. Female participants explained how women and girls had, in many ways, borne the brunt of the impact, often due to their role as primary caregivers, typically responsible for feeding the family and engaging in unpaid household labour. As such, women felt additionally burdened, for example, by the need to spend more time travelling longer distances to collect water or to source food.

In the face of the extreme conditions associated with the drought, however, participants highlighted that they were successfully able to use the climate-smart techniques taught and encouraged by the Agriculture Guide Programme to build resilience. With reference to the drought, techniques such as drip irrigation, production and use of natural fertilisers and pesticides, mulching, food preservation techniques, planting of small grain and early maturity seeds, and crop diversification were all seen as valuable in helping to lessen both the direct and indirect effects of the drought.

Overall, despite the very real and persistent challenges caused by the drought, discussions with all participants provided clear evidence that the Agriculture Guide Programme in Zambia and Zimbabwe had helped to lessen some of the negative impacts associated with the 2024 drought. Components such as training through the Agriculture Guide sessions, implementation of climate-smart techniques, advice and support on running a business, distribution of grants and farming inputs, and having access to a peer support network were all emphasised by participants as significant and effective forms of support during the drought. CAMFED will take forward the findings of this research to support young women to further strengthen their delivery of the Agriculture Guide Programme and to build community climate resilience.

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