

MARKET SYSTEMS ANALYSIS

MASAP Phase II: July 2025 – June 2029

Swiss Agency for Development and Cooperation (SDC)

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Acronyms

AFC	Agricultural Finance Corporation
AFZ	Associated Foods Zimbabwe
AMA	Agricultural Marketing Authority
BIZ	Bio Innovation Zimbabwe
CBI	Crop Building Institute
CBO	Community Based Organisation
CBZ	Commercial Bank of Zimbabwe
CCZ	Consumer Council of Zimbabwe
CLAFA	Crops, Livestock and Fisheries Assessment
CSO	Civil Society Organisation
CTDO	Community Technology Development Organisation
EU	European Union
FGD	Focus Group Discussion
FIBL	Research Institute of Organic Agriculture
GAP	Good Agricultural Practices
GCF	Green Climate Fund
GMB	Grain Marketing Board
IFAD	International Fund for Agricultural Development
IMC	Irrigation Management Committee
IP	Intervention Partner
IRR	Irrigation
KII	Key informant interview
MASAP	Markets and Seeds Access Project
MoLAFWRD	Ministry of Lands, Agriculture, Fisheries, Water, and Rural Development
MSA	Market Systems Analysis
MT	Metric tonne
NDS2	National Development Strategy II
NGO	Non-Governmental Organisation
NTS	National Tested Seeds
POP	Population
PROD	Production
RA	Research Assistant
RDC	Rural District Council
SACP	Smallholder Agriculture Cluster Project
SCOPE4IVC	Strengthening the Competitiveness and Potential for Export for Inclusive Value Chain
SDC	Swiss Agency for Development and Cooperation
SHF	Smallholder farmer
SIRP	Smallholder Irrigation Revitalisation Programme
SWOT	Strength, Weaknesses, Opportunities and Threats
TAZEPA	Technical Assistance to the Zimbabwe Economic Partnership Agreement
ToC	Theory of Change
ToR	Terms of Reference
UMP	Uzumba, Maramba Pfungwe
UNESCO	United National Educational and Scientific Organisation
USAID	United States Agency for International Development
VC	Value Chain
WASH	Water Sanitation and Hygiene
WHH	Welthungerhilfe
ZADT	Zimbabwe Agriculture Development Trust
ZFU	Zimbabwe Farmers Union
ZNFU	Zimbabwe National Farmers Union
ZRBF	Zimbabwe Resilience Building Fund
ZSA	Zimbabwe Seed Association

Executive Summary

Background to the Study

The Markets and Seeds Access Project (MASAP), funded by the Swiss Agency for Development and Cooperation (SDC), is implemented by NIRAS A/S in collaboration with the Community Technology Development Organisation (CTDO) and the Research Institute of Organic Agriculture (FiBL). Phase I was implemented in five districts – Mudzi and Tsholotsho in Zimbabwe and Chipata, Sioma and Sesheke in Zambia. Following the completion of Phase I at the end of June 2025, Phase II started in June 2025 and will run until the end of June 2028 in Zambia and the end of June 2029 in Zimbabwe. The second phase focuses on consolidating and expanding the achievements of the first phase for the benefit of smallholder seed and commodity producers and the companies that support the farmers. MASAP will also work in two additional districts in Zimbabwe to enable more smallholder farmers and companies to benefit from project interventions.

Study Purpose and Objectives

The primary purpose of the Market Systems Analysis (MSA) is to identify opportunities, constraints, and strategic entry points for enhancing traditional grains and legumes production and marketing, particularly in existing and proposed new project districts. This MSA aims to inform expansion strategies based on a comprehensive analysis of agro-ecological suitability, market dynamics, value chain actors, and smallholder farmer needs and interests. Among key areas assessed by the MSA were the level of access to resilient varieties, engagement with the private sector, and policy frameworks impacting the agricultural landscape.

Methodology and Research Tools

The MSA employed a mixed-methods approach to achieve a comprehensive understanding of the seed and commodity market dynamics surrounding traditional grains and legumes. This methodology blended qualitative and quantitative research methods, providing a more nuanced analysis of the challenges faced by farmers and market participants. Key methods included a survey with a target sample size of 412 farmers, achieving a response rate of 90.0% with 371 farmers surveyed. Notably, 52.0% of respondents were from Mudzi, and 48.0% from Tsholotsho. Female respondents comprised 62.0% of the sample. The research team conducted 70 KIIs with crucial stakeholders, including government officials, intervention partners (IPs), agricultural experts, MASAP team, SDC and CTDO and community members. A total of 16 FGDs were conducted, segregated by gender to capture varied perspectives; 8 were for women, 4 for men, and 4 for mixed groups. The team performed observations of agricultural practices and analyzed existing reports, including crop production statistics, which provided additional insights into the dynamics of the local agricultural landscape. In analyzing potential two new districts, specific criteria were evaluated to align with project goals. These included agricultural production capacity, rainfall patterns, population dynamics, existing development projects, and accessibility.

Study Limitations and Challenges

Conducting research in rural communities often presents various challenges. The MSA encountered significant limitations, such as low participation rates - instances like local funerals resulted in reduced participation in Mudzi. Miscommunications regarding mobilization hindered adequate farmer engagement in some wards. Farmers also expressed concerns over delays in payments for delivered crops, impacting their willingness to participate in the study especially in Tsholotsho and highlighting larger systemic issues within the agricultural market. To mitigate these challenges, the research team adjusted its approach, rescheduling field visits and utilizing community engagement strategies to maximize participation while respecting cultural practices and local timelines.

Findings of the Study

Existing and Potential Partners

MASAP is set to expand its initiatives into two new districts, and the MSA identified Bubi and Buhera as the potential two new districts. The selection of these districts followed a systematic evaluation that prioritized agricultural viability, existing partnerships, existence of current or previous projects in MASAP value chains, climatic conditions, and community engagement, thus aligning with the objectives of MASAP. In the Southern parts of the country, Bubi emerged as a strong candidate with a score of 0.90 out of a maximum potential mark of 1.0, primarily due to the high willingness of intervention partners (IPs) for commodity production. Similarly, Buhera scored an impressive 0.95, benefiting from established support networks and the active presence of the CTDO. Both districts were assessed for their potential to serve as "hubs" for specific crops, with Bubi being recommended for traditional grains (sorghum and pearl millet), cowpeas and potentially seed production under irrigation. Buhera was identified as a prospective national centre for Bambara nut production, showcasing its strategic importance for legumes. This

district was recommended for all the MASAP crops (sorghum, pearl millet, groundnuts, cowpeas and Bambara nuts), for both seed and commodity production including under potential irrigation circumstances.

Existence of current partners such as Zadzamura highlights the importance of ongoing seed multiplication efforts in Mudzi and Tsholotsho, although they plan to withdraw from Tsholotsho. Their interest in progressively involving Buhera for groundnuts and Bambara nuts indicates an eagerness to diversify and expand production capabilities. The National Tested Seeds (NTS) is also involved, showcasing flexibility to explore other districts while showing particular interest in the Bambara nut seed value chain. Emerging partners, including EASI Seeds and Champion Seeds, show promise for greater collaborations in the traditional grain sector; EASI Seeds operates across various districts, while Champion Seeds targets specific crops suited to the environmental conditions of Buhera. On the commodity side, Ingwebu breweries, Ocean Foods and Buntu Foods have shown interest in Bubi, while Delta Corporation has indicated interest to be a new potential partner for the project in Buhera and Mudzi districts. This collaborative network aims to increase crop diversity and sustainability across the MASAP targeted districts.

Supporting Functions

Analysis of communication services reveals significant disparities affecting farming activities in Mudzi and Tsholotsho. Mobile phone coverage is notable, with 72.8% of farmers having access; this coverage is higher in Mudzi at 74.6% compared to 70.8% in Tsholotsho, underscoring the essential role of mobile communication in coordinating activities and accessing market information. However, internet access is limited, affecting only 28.4% overall – 32.3% in Mudzi versus 24.2% in Tsholotsho – restricting ability of farmers to utilize digital resources for research and networking. Agricultural extension services are critical, with 74.8% of farmers reporting access, more prominent in Tsholotsho (81.7%) than in Mudzi (68.5%). Gender analysis shows consistent access across male and female farmers. These services are primarily delivered via the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MoLAFWRD) and through the IPs. However, government extension staff indicated a need for additional private sector field officers due to high workloads, leading to exhaustion and inefficiency. Access to financial services remains critically low, with only 6.8% of farmers reporting loan availability; 93.2% lack credit access. More than half (57.6%) have no access to Internal Savings and Lending Schemes (ISALs), although 42.4% do participate. This highlights potential to strengthen ISALs for funding agricultural activities. Additionally, high-risk perception from formal institutions limits credit offerings, complicating access to necessary financing for smallholder farmers.

Enabling Environment

Analysis of current policies revealed a communication gap. A concerning 77.2% of respondents believed no specific policies have improved their access to inputs, suggesting a need for more effective outreach and support initiatives. Gender disparities in awareness of government programs were also evident, with women expressing a lack of knowledge regarding available assistance. Awareness of programs such as the Government Agriculture Input Scheme is vital, with 53.9% of respondents recognizing its importance in providing necessary resources for seed procurement. Yet, other programs remain largely unrecognized, indicating the necessity for clear communication and engagement strategies. The conversation around farmer varieties reveal a pressing need for specific systems that accommodate these unique crops within the formal seed registration framework. Currently, many farmer varieties fail to meet the formal registration criteria due to stringent requirements, particularly regarding classification and description.

Current Production

Production statistics for the target MASAP II value chains highlighted the potential viability of traditional grains with the following output having been achieved nationwide for the 2024/25 season: Cowpeas: 24,210 MT; Groundnuts: 86,449 MT; Bambara nuts was 24,922 MT; Sorghum: 434,249 MT; and Pearl Millet: 339,169 MT. However, various constraints were identified, including inadequate rainfall (26.8% of farmers reported this as a significant barrier), access to quality inputs (14.8%), and issues with timely payments by IPs (13.2%). The agro-ecological assessment underscored critical findings regarding rainfall patterns, with 90.8% of respondents characterizing recent rainfall as "low" to "very low." This has direct consequences for agricultural productivity, emphasizing a need for adaptive strategies, improved irrigation methods, and drought-tolerant crop varieties.

Farmer Interest and Capacity

The analysis revealed low interest in producing traditional grains and legumes among SHFs, driven largely by market access challenges. For example, 40.3% of respondents cited "lack of readily available market" as the primary barrier for growing Bambara nuts. Additionally, inadequate funding affected 21.7% of respondents,

underscoring the importance of financial support mechanisms in promoting crop production. Market analysis indicated existing opportunities, but also highlighted various barriers facing SHFs. Expansion into regional and niche markets is feasible, but significant infrastructural improvements are needed, including: efficient transport systems; access to reliable markets for sales; and educational programs for farmers on market trends and demand.

Recommendations

Based on the findings of this comprehensive MSA, several strategic recommendations are proposed:

Recommendations on potential new districts

- Target Bubi and Buhera as New Districts – These districts exhibit favourable climatic conditions for MASAP value chain crops and existing partnerships that enhance the potential for effective project outcomes.
- Focus on specific value chains – The Southern Districts should prioritize sorghum, pearl millet and cowpeas, avoiding groundnuts and Bambara nuts, where low productivity is noted.

Recommendations on potential partnerships

- Leverage existing relationships in Mudzi and Tsholotsho – Strengthening ties with current IPs like Zadzamatura and NTS is critical for continued seed production success.
- Engage new partners - Explore partnerships with organizations like EASI Seeds, Valley Seeds, Farmbiz and Mukushi Seeds, particularly for introducing new seed varieties.

Recommendations for commodity production

- Engagement with Delta Corporation – Leverage their capacity for large-scale production and processing of sorghum and millet in Buhera. Potentially engage them in Mudzi as well given their current activities in some wards in that district.
- Foster relationships with local processors – Further collaborating with local processors such as Buntu Foods, Ingwebu Breweries and Ocean Foods can ensure stable market access for SHFs in Bubi district.

1. Background to the Study

The Markets and Seeds Access Project (MASAP), funded by the Swiss Agency for Development and Cooperation (SDC), is being implemented by NIRAS A/S in partnership with the Community Technology Development Organisation (CTDO) and the Research Institute of Organic Agriculture (FiBL). Following the completion of Phase I (December 2021 – June 2025), which established project activities in Zimbabwe (Tsholotsho and Mudzi) and Zambia (Sioma/Sesheke and Chipata), Phase II (July 2025 – June 2029) seeks to consolidate achievements, scale up interventions, and extend benefits to a larger number of smallholder farmers (SHF), with a particular focus on women and youth. MASAP's overall goal is to strengthen food security and resilience among smallholder households by enhancing the adoption and utilisation of improved open and self-pollinated varieties of traditional grains (sorghum and millets) and legumes (cowpeas and groundnuts). This vision is anchored in the development of vibrant, community-driven seed and commodity markets, supported by responsive policies, strong institutions, and dynamic private sector participation.

The design of the programme integrates three interlinked components:

1. **Adoption and utilisation of traditional grain and legume seed** to enhance access by SHFs to resilient varieties for food security and income generation.
2. **Private sector engagement** to ensure predictable and sustainable availability of quality seed and related services.
3. **Policy engagement and action learning** to strengthen the enabling environment and evidence-based advocacy for traditional grains and legumes.

In Phase II, MASAP is scaling up its work in Zimbabwe by adding two new districts while phasing out activities in Zambia in 2028. This Market Systems Analysis (MSA) to identify opportunities, constraints, and strategic entry points forms part of the critical steps in expanding production and marketing of drought-tolerant traditional grains and legumes in the current and two new districts. In addition, the study assessed the potential for developing a viable bambara nut value chain in both existing and new districts. The MSA seeks to identify potential implementation partners (IPs) for Phase II in both the current and the two potential new districts. The MSA also provides evidence to guide district selection and inform programme interventions. It therefore analyzed agro-ecological suitability, production potential, market systems dynamics, value chain actors, policy and institutional frameworks, and smallholder farmer interest and capacity. The findings are intended to ensure that the scale-up strategy for MASAP is responsive to both the opportunities and challenges faced by smallholder farmers and value chain actors to lay out a strong foundation for resilient, inclusive, and sustainable growth.

1.1 The assignment purpose and objectives

The study provides a comprehensive MSA identifying opportunities and challenges for scaling up the production and marketing of drought-tolerant crops in both existing and new districts. It successfully maps core market dynamics, focusing on farmers, who represent the demand side, and the private sector, which forms the supply side. Furthermore, the analysis acknowledges the role of government bodies and civil society organizations that offer vital support services to SHFs. The Supporting Functions section effectively analyses constraints that hinder market efficiency and proposes actionable solutions. The Enabling Environment component assesses necessary infrastructure and policies that support SHFs in both production and marketing. Current production capabilities and constraints were thoroughly evaluated, providing insight into existing farming practices. Additionally, an Agro-Ecological Assessment was conducted to determine climatic and soil suitability for the targeted crops, while Farmer Engagement efforts gauged interest and capacity among farmers. The analysis also identifies potential market opportunities for traditional grains and legumes and includes a detailed assessment of the Bambara nut value chain to establish its viability in both existing and new districts.

2. Methodology and Research Tools

In conducting the MSA, the study employed a mixed methods approach to ensure a comprehensive understanding of the seed and commodity market and consumption dynamics surrounding traditional grains and legumes. This approach combined both qualitative and quantitative research methods, allowing for a richer, more nuanced analysis. The specific methods consisted of a household **survey**, which gathered quantitative data from the SHFs about the seed and commodity **production practices, market access, consumption and constraints**. Additionally, the study team conducted **key informant interviews (KIIs)** with stakeholders, including **intervention partners (IPs)** – current and potential –; aggregators; government officials (including those on policy) and agricultural experts,

to gain **qualitative insights**. The study team also engaged SHFs and community members in **focus groups discussions (FGDs)** to explore their **perceptions, challenges, and opportunities** in the seed and commodity markets. Furthermore, the team performed **field observations** to witness agricultural practices such as land preparation and planting as well as the seed and commodity market conditions first-hand. Lastly, the study team conducted a **document review** involving the analysis of existing reports and project documents. The reports included the Crops, Livestock and Fisheries Assessment (CLAFA-2) reports which provide crop production statistics. Project documents reviewed included **MASAP Phase I and Phase II Pro-Docs**; MASAP Phase 1 Mid-Term Evaluation Report; **MASAP Phase 1 End of Project Report**; the MASAP Phase 1 MSA Report and others (including some online literature).

The MASAP Phase 1 project operated in 6 wards in Mudzi and 8 wards in Tsholotsho and given the time and resource limitations it was decided to sample the number of wards to be visited. Four wards were therefore randomly sampled for each district, stratified by the type of activity – seed or commodity and value chains type. Out of a targeted total of 412 farmers, the survey reached out to 371 (90.0%) of the sample. Among these respondents, Mudzi received **193 responses**, constituting **52.0%** of the total responses. Tsholotsho had **178 responses**, making up **48.0%** of the total. Across the two districts, 62.0% of the respondents (46.9% in Mudzi and 78.3% in Tsholotsho) were females, while male respondents made up 38.0% (53.1% in Mudzi and 21.7% in Tsholotsho). Together, these two districts represent the complete set of responses analyzed.

With regards to qualitative data collection, across both districts the study team carried out eight FGDs for women (5 in Mudzi and 3 in Tsholotsho), four for men (2 in each district), and four mixed groups (2 in each district), resulting in a total of sixteen FGDs. In Mudzi there was a higher number of women who turned up for the meetings as a result of the mobilisation efforts, hence the higher number of FGDs compared to Tsholotsho. In addition, a total of 70 key informant interviews were conducted with stakeholders across the value chain including, **intervention partners (IPs)** – current and potential (aggregators; processors; and traders), government officials, agricultural experts, SDC, CTDO and MASAP Project Team to gain **qualitative insights**. The list of stakeholders interviewed is presented in Annex 1. **Field observations** were also conducted to witness agricultural practices such as land preparation and planting as well as some of the seed and commodity market conditions first-hand.

Methodology for ranking of potential new districts

The selection process for the new districts involved a comprehensive assessment using specific criteria to ensure alignment with project goals and agricultural viability. The availability and willingness of key potential and current implementing partners (IPs) were critical determinants in the selection process for the project. Their readiness to collaborate with smallholder farmers significantly influenced this choice. The process also identified districts in which CTDO was registered in the year 2024 (CTDO districts); previous CTDO-registered districts and districts in which CTDO was never registered (non-CTDO districts) in which IPs were willing to contract smallholder farmers under MASAP Phase 2. An evaluation of potential agricultural production was conducted, concentrating on projected production volumes for the 2024/25 season. This assessment emphasized the capacity for producing traditional grains and legumes, including Bambara nuts. Additionally, average annual rainfall was considered a constant factor, with its effects reflected in the production levels. Furthermore, the size of the district population served as a proxy for the demand for agricultural support services and the potential local market size. The analysis also included the presence of current or past development projects that focused on value chains associated with MASAP. Lastly, accessibility and infrastructure were taken into account, which encompassed the availability of irrigation schemes and the distances from IP processing points, all of which play a vital role in the overall feasibility and success of the project.

3. Study limitations and challenges

Data collection is a critical component of any research initiative, yet it often presents various challenges and limitations. In this study, the team encountered several obstacles that impacted the participation rates. In Mudzi Ward 15, the survey coincided with a local funeral, resulting in low turnout for both the survey and FGDs. Recognizing the cultural significance of these events, the team adjusted the schedule to allow for a later engagement in the community, aiming to conduct follow-up sessions once the mourning period had concluded. This approach not only respected local customs but also improved participation during the subsequent visit. Additionally, miscommunication regarding mobilization efforts in other wards led to a situation where only a few farmers were mobilized instead of the minimum target of 50 per ward. To rectify this, the team implemented urgent on-site mobilization strategies on the day of the survey. Despite these efforts, some farmers were unreachable at home. In response, the study team developed a follow-up strategy, sending team members to locate farmers at

their homes and setting up alternative meeting times. While this consumed significant time, it ultimately allowed the study to reach a broader audience.

In Ward 13 of Tsholotsho, several farmers were hesitant to participate, demanding payment for grain they had delivered in September 2025. Their frustration stemmed from the expectation of receiving compensation from the respective IP within two weeks after the grain had been collected, but it had been over 2 months since they had made the deliveries. To address their concerns, the team engaged Agritex officers who helped facilitate discussions with the farmers, emphasizing the importance of their participation in the study. Simultaneously, the team adjusted the data collection plan by increasing the number of interviews conducted in adjacent wards to compensate for the shortfall in participation from Ward 13. The fieldwork in Mudzi was initially delayed due to a scheduled State visit by the Minister, which required relevant authorities to focus on preparations. This led to a temporary suspension of district-level KIIs and mobilization in Ward 15. To adapt, the team remained engaged with community leaders and quickly adjusted the mobilization efforts once the visit by the Minister got cancelled. This proactive communication helped to resume activities without losing momentum in data collection.

Lastly, the assessment faced some challenges in obtaining district level crop production data given that data presented in the Crops, Livestock and Fisheries Assessment (CLAFA-2) reports is aggregated at the provincial level and not district. While it took a large amount of time for the district level data request to be accepted, once the go-ahead was given at the ZIMSTAT the instruction was that it had to be selected districts and also restricted to one year. Therefore, a request was made for the 2024/25 data and across only 20 districts out of the 64 districts. For the remaining the team used averages calculated using the province level data to approximate the crop production volumes for the remaining districts.

4. Findings of the study

4.1.1 Existing and potential partners in the traditional grains and legumes seed value chains

This section presents a summary of existing and potential IPs starting with the seed value chains and then the commodity value chains inclusive of the Bambara nut seed and commodity value chains.

4.1.1.1 Current and Potential IPs for seed production in traditional grains and legumes

The study identified two current IPs engaged in seed multiplication and the Crop Breeding Institute (CBI) – see Table 1. Zadzamatura is actively contracting farmers for seed multiplication in Mudzi and Tsholotsho, although they plan to withdraw from Tsholotsho. They have expressed interest in expanding to Buhera for legume production, specifically groundnuts and Bambara nuts, highlighting Buhera as the "national hub" for Bambara nut production. Additionally, Zadzamatura aims to produce traditional grains seed in Muzarabani, benefiting from its proximity to their processing plant in Harare, and is also venturing into regional markets for traditional grains and legumes targeting exports to Angola, Namibia, Mozambique, and Botswana.

The National Tested Seeds (NTS) is currently involved with the MASAP project in Mudzi, with seed production operations in Guruve, expressing flexibility to enter other viable districts while showing interest in the Bambara nut seed value chain. Meanwhile, CBI contracts farmers for foundation seed multiplication in districts such as Mudzi, Tsholotsho, and Rushinga and is keen to continue its engagement and further participate in Bambara nut seed breeding under MASAP Phase II.

Table 1: Market Actors in the Seed Value Chains

Market Actor (Seed VC)	Value chains/ Products	Opportunities for partnerships	Major constraints being faced
Zadzamatura (current IP)	Value chains Sorghum seed (Tsholotsho & Mudzi) Pearl Millet seed (Tsholotsho) Groundnuts seed (Mudzi) Potential Value Chains Bambara Nuts (recognizes opportunities in the VC)	Preferred districts Mudzi Buhera Muzarabani	- Low rainfall over the past seasons in both districts (Tsholotsho and Mudzi) - Some farmers side-marketing and/or retaining the seed for consumption in the face of the droughts - Lack of adequate personnel during the time of off-taking (the amount of work for one person per district becomes high). - High interest rates to access working capital and a lack of financial guarantees. - Farmers retaining seed, reducing market demand for the seed
National Tested Seeds (NTS) (current IP)	Value chains Ground nuts Pearl millet Cowpeas Sorghum Bambara nut as potential VC As long as there is a market	Preferred districts Mudzi Guruve Flexible to get into other districts provided they are accessible	- The main problem was the drought - Lack of access to affordable finance
EASI Seeds (Potential)	Value chains Cowpeas Sorghum Groundnuts Pearl millet Bambara nut as potential VC Interested in pursuing this VC if profitable	Preferred districts Mash East – Murewa; Mudzi, UMP, Mutoko Mash West – Hurungwe, Sanyati, Kariba, Hurungwe, Zvimba; Mhondoro, Chegutu Masvingo – Gutu, Masvingo, Chiredzi, Mwenezi Manicaland – Mkoni and Mutasa, Buhera Midlands – Gokwe Matabeleland North – Tsholotsho Matabeleland South – Gwanda	- Lack of input insurance against the recurring droughts - Side marketing challenges (some buyers approach the farmers with cash without having invested in the production). Farmer is looking for the cash. - Lack of affordable funding for working capital from financial institutions e.g. to borrow loans to purchase the grain/seed. - Competition is also high - Seed retention – very few farmers buy cowpeas, they mostly use what they have retained from previous harvest. This is why some bigger companies tend to neglect smallholders because there is no guaranteed annual market for the seed.
Champion Seeds (Potential IP in the event that some board membership conflict of interest with CTDO are resolved)	Value chains Sorghum Pearl millet Cowpeas Bambara nut as potential VC Interested in pursuing this VC if profitable. Reported receiving enquiries by farmers willing to multiply the seed. Thinks the crops is very much sensitive to environment – suitable for places like Buhera, Rusape	Preferred districts Tsholotsho Binga-Lusulu Mutoko UMP Gokwe Buhera Makoni	- Technical knowledge gaps among farmers, which necessitate more intensive hands-on support from the IP - Logistical challenges, particularly around accessibility to remote production areas/sites - Weak farmer organisation structures, limiting the ability to aggregate volumes and ensure consistent quality - Unavailability and inconsistent supply of parent seed from breeders - Cashflow challenges from major customers. This adversely affects the timely payment to growers and often results in side marketing
Mukushi Seeds (Potential)	Value chains Sorghum (SV4, marcia) Cowpeas (CBC2; CBC5) MASAP VCs of interest if markets exist Groundnuts Bambara Nuts	Preferred districts Mudzi – (Nyamatanda, Shinga, Chitisa areas – since 2014 to date) Masvingo Chipinge	- Have had problems with sales agents who do not bring back the money. Have had to streamline the agents. - Company is still trying to recover back the money from these agents from seed sales of two to three years ago.
Valley Seeds (Potential)	Value chains Sorghum seed Cowpeas seed Groundnuts seed	Preferred districts Goromonzi Mutoko	Low rainfall in recent seasons has reduced farmer productivity. Have had to move into districts such as Mutoko with relatively high rainfall

Market Actor (Seed VC)	Value chains/ Products	Opportunities for partnerships	Major constraints being faced
	Bambara nut as potential VC Interested in pursuing this VC if profitable		Limited access to long-term funding at competitive interest rates from financial institutions
Farmbiz (Potential)	Value chains Sorghum (SV4, marcia) - biggest supplier of sorghum under the Presidential Input Scheme in 2025/26 season Cowpeas (CBC2; CBC5) Bambara nut as potential VC Interested in pursuing this VC if profitable	Preferred districts Mudzi (Chimango; Kaitano areas – over 280 farmers) Muzarabani – over 300 farmers Binga Lungwalala Irrigation Scheme – over 100 farmers 17.5 ha winter sorghum seed (2025) & 10 ha winter pearl millet seed (2025) [2.5 tons/ha expected for both crops] Honde Valley – Sugar beans seed Other preferred districts Gokwe Muzaraani Gutu	- Limited capacity as the company does not currently have a significant number of employees - Owens land for putting up a plan at Mupandawana Growth Point in Gutu but not yet able to put up the plant because of lack of access to adequate funding - Slow and late payments on seed delivered to the Government under the Presidential Input Scheme - Scarcity of sources and availability of basic seed

The analysis identified five potential IPs for seed production and multiplication in traditional grains and legumes, highlighting their significant potential for engagement also summarised in Table 1. EASI Seeds operates across various districts, including Mash East and Manicaland, showing a willingness to engage in the Bambara nut seed value chain and covering regions with strong agricultural potential. Champion Seeds focuses on sorghum, pearl millet, and cowpeas, with increasing interest in Bambara nuts, favouring districts like Tsholotsho and Buhera for their suitability. However, Champions Seeds will only qualify as a partner in the event that some board membership conflict of interest with CTDO have been fully resolved.

Mukushi Seeds has established operations primarily in Mudzi, Masvingo, and Chipinge since 2014, allowing for flexibility in meeting local farmer needs. The company has engaged in multiplying several sorghum and cowpeas varieties and aims to participate in the groundnuts and Bambara nuts seed value chains once they are certain of profitable opportunities. Valley Seeds operates in Goromonzi, Chivi, and Mutoko but has a limited footprint, indicating the need for strategies to enhance its reach. The company expresses readiness to partner within MASAP in viable districts. Meanwhile, Farmbiz has extensive operations in Mudzi and Muzarabani, working closely with over 280 farmers in Mudzi alone. Their plans to expand into Gokwe and Gutu reflect a strong commitment to increasing seed production capacity, aiming for high yields of winter sorghum and pearl millet from contracted farmers in Binga district at Lungwalala Irrigation Scheme. The company in 2025 contracted over 100 farmers on 17.5 ha winter sorghum seed and 10 ha winter pearl millet seed, with an expected yield of **2.5 tons/ha for both crops**.

4.1.1.2 Current and Potential IPs for commodity production in traditional grains and legumes

Table 2 provides an overview of five current IPs engaged in the production and processing of traditional grains and legumes under MASAP. Ocean Foods stands out for its involvement with sorghum and pearl millet, focusing on stock feed production and Bambara nut processing, currently supporting 250 farmers in Tsholotsho, with plans to expand. Buntu Foods shares similar value chains, offering products like Mutakura and Mufutshwa and engaging 690 farmers while targeting an additional 400. Nutrie Foods specializes in groundnuts and Bambara nuts, working with 1,000 farmers in Mudzi, and enhancing partnerships in surrounding districts. Ingwebu Breweries, a significant player in the brewing industry, contracts 461 farmers in Tsholotsho and is expanding its operations. Finally, Nyamasvinga Investments, focuses on peanut butter production, currently works with 10 farmers in Mudzi, aiming to grow their base.

Table 2: Market Actors in the Commodity Value Chains

Market Actor (Commodity)	Value chains/ Products	Opportunities for partnerships	Major constraints being faced
Ocean Foods (Current IP)	Value chains Sorghum Pearl millet Products Stockfeed (mainly for poultry) Traditional grains meal	Preferred districts Tsholotsho (wards 8; 10 and 12 in 2024/25 supported 250 farmers; also plans to go into ward 9) Plumtree	- Late distribution of seed to the farmers. Some of the farmers will have reallocated the land to production of alternative crops - Poor rainfall distribution of rains across the seasons compromising on productivity (heavy/too much rains in March 2025 affected sorghum yield) - Side marketing by farmers and/or keeping some of the produce for consumption thus limiting the volume of produce available to the contractor
Buntu Foods (Current IP)	Value chains Sorghum Pearl Millet Products Mutakura Mufutshwa Rupiza Potential Value Chains Groundnuts Bambara nuts	Preferred districts Tsholotsho (wards 22, 6 and 13). Currently on 690 if they can add 400 more farmers to reach 1,000 farmers in Tsholotsho Binga – 418 farmers Bubi Umguza – 100 farmers	- Farmers demanding high prices e.g. benchmarking on the GMB price yet the GMB expects farmers to deliver to its depots - Ward 13 farmers in Tsholotsho demanding cash up-front from the company before they release the grain - Some of the farmers failing to produce the crops in some of the wards due to lack of capacity
Nutrie Foods (Current IP)	Value Chains Groundnuts Products Nutre Peanut Butter Potential Value Chain Bambara nuts	Preferred districts Mudzi (wards 15; 2; and 3). Currently on 1,000 farmers Zhombe Hwedza	- Limited access to funds for purchasing of produce from the farmers - Drought conditions are reducing farmer productivity and yields
Ingwebu Breweries (Current IP)	Value chains Sorghum Pearl millet Products Ingwebu beer Non-Alcoholic beverages	Preferred districts Tsholotsho – Contracted 461 farmers (wards 2; 9; 6; 5; 22 and part of 13) Binga Bubi Chiredzi/Chikomedzi	- Coordination challenges with Government extension staff given that the program does not regularly offer them with resources for coordination e.g. airtime - Late payments to farmers by the company due to challenges in accessing relevant funding - High competition to contract the best farmers from other private sector players - Lack of budget in the program for issues very specific to each value chain (assumption is that Agritex will have covered these issues, which is not always the case)
Nyamasvinga Investments (Current IP)	Value chains Groundnuts Products Peanut Butter	Preferred districts Mudzi - Contracted 10 groundnuts farmers in 2024/25 Mudzi - Planned to contracted 50 groundnuts farmers in 2025/26	- Lack of access to adequate local groundnuts for processing - High cost on importing groundnuts (was accessing at \$1,900 per ton in September 2025 grounds nuts being sourced from middlemen) - High transport cost of groundnuts from Harare to Mudzi (does not have own transport)
Delta Corporation (Potential IP)	Value chains Sorghum Products Chibuku Scud Chibuku Super Super Sip Non-Alcoholic beverages	Preferred districts Buhera Chiredzi Mwenezi Sanyati Guruve Masvingo Mudzi	- Climate change posing risks on the business of the company and that of stakeholders - Legal and regulatory responses may have a long-term adverse impact on the business

Market Actor (Commodity)	Value chains/ Products	Opportunities for partnerships	Major constraints being faced
Liquid Refreshment Zimbabwe (formerly Love Your Food) (Potential IP)	Value chains Groundnuts Products Peanut butter	Preferred districts Mudzi	- Middlemen play a crucial role in the local market, providing immediate cash and transportation, but their involvement can distort pricing and relationships. - The presence of NGOs can affect repayment and accountability among farmers, leading to expectation for free resources.
Some challenges highlighted by others who declined to participate e.g. PHI - Difficulties in providing consistent agricultural inputs (like seed and fertilizer) lead to variability in production quality and volume. - Smallholder farmers may lack the technical know-how or resources needed to cultivate successfully, necessitating support that can be hard to manage at scale. - Many smallholders may have different priorities (e.g., wanting to grow vegetables instead of cash crops) or lack cohesion, making it hard to implement collective farming practices. Many schemes depend on dry land farming, which can lead to significant crop failures during drought years. - The minimal volume of crops produced often doesn't justify the logistics and costs involved in collecting and transporting them. - Smallholder farmers often have different price expectations and can be influenced by external buyers, complicating formal commercial relationships.			

Table 2 also explores new potential IPs in the MASAP value chains for traditional grains and legumes. Delta Corporation Limited emerges as a major player in the sorghum value chain, producing products like Chibuku Scud and Ades Maheu. Their partnership potential is rated very high due to their significant footprint in districts such as Buhera and Chiredzi, and their annual requirement for 13,000 tons of red sorghum underscores the vast demand for local produce. The company engages with 11,000 farmers, predominantly communal, highlighting their capacity for impactful partnerships. Liquid Refreshment Zimbabwe, specializing in groundnuts and with a strong operational presence in Mudzi, exhibits very high partnership potential due to their substantial monthly offtake, of at least 20 tons per month. Overall, Delta Corporation represents a key opportunity for enhancing local agricultural production.

4.1.3 Recommendations for new potential districts for MASAP Phase II

The selection of two new districts for the MASAP project was conducted through a systematic methodology that prioritized agricultural viability, production levels, climatic conditions, community engagement, and the operational status of CTDO. The aim was to identify districts that would provide the most favourable environment for scaling up seed multiplication activities and commodity production for small grains and legumes, including Bambara nuts, within the MASAP value chains. A comprehensive dataset was compiled, including average annual rainfall, historical CTDO operational status, and the advantages and disadvantages of each district. Preliminary interviews were also conducted with project partners, project stakeholders in Government and with some current and potential Intervention Partners (IPs). The country's districts were split into two, the Southern Region and the Northern Region with the aim of selecting one district from each of the two regions.

4.1.3.1 Potential two new districts ranking guide

The scoring system employed for evaluating the readiness of IPs incorporates several critical factors. The willingness of IPs was quantified such that five or more willing IPs yielded 0.3 points, between two and four IPs provided 0.2 points, while one willing IP awarded 0.1 points; no willing IPs resulted in zero points. The presence of the CTDO contributed additional points, with established CTDO presence earning 0.1 points, past CTDO presence scoring 0.05 points, and non-CTDO presence resulting in zero points. Regarding agricultural production, a significant threshold was set, whereby contribution to national production in 2024/25 above 4% of the regional average earned 0.2 points, production between 2% and 3.9% provided 0.1 points, and production below 2% yielded no points. Notably, groundnuts and Bambara nuts were excluded, for the Southern Region calculations, as production data indicated that these value chains were not particularly viable in this Region.

Population size was assessed based on the ZIMSTATS 2022 National Population Census, where a high population (100,000 inhabitants or above) scored 0.1 points and a low population (less than 100,000) scored nothing. The presence of current or past development projects focusing on MASAP value chains, such as Simbisa, Smallholder Agriculture Cluster Project (SACP), Zimbabwe Resilience Building Fund (ZRBF), and Technical Assistance to the Zimbabwe Economic Partnership Agreement (TAZEPa), earned 0.1 points, while their absence resulted in zero points. Accessibility and infrastructure were evaluated based on the distances to processing points: distances of less than 50 km earned 0.1 points, distances between 100 and 250 km earned 0.05 points, and distances of 251

km and above yielded no points. Additionally, the presence of irrigation infrastructure contributed 0.1 points, while its absence resulted in zero points.

In summary, the maximum possible total score that could be achieved through this multi-faceted evaluation system is 1 point, calculated as follows:

$$\text{Maximum total score} = 0.3\text{IP} + 0.1\text{CTDO} + 0.2\text{PROD} + 0.1\text{POP DENSITY} + 0.1\text{VCs} + 0.1\text{Access} + 0.1\text{IRR} = 1$$

4.1.3.2 Potential two new district selection weights distribution

As summarized in Table 3, the top four ranked districts based on aggregate scores were Bubi (0.90), Tsholotsho (0.75), Umzingwane (0.60), and Binga (0.60). Bubi excelled in IP willingness and production capacity, while Tsholotsho benefited from strong IP support. Both Umzingwane and Binga demonstrated potential, particularly in population density.

Table 3: Potential two new district selection weights distribution Southern Region

District	IP	CTDO	PROD	POP DENSITY	VCs	Access	IRR	TOTAL WEIGHTS
Bubi	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.90
Tsholotsho	0.3	0.1	0.2	0.0	0.1	0.05	0.0	0.75
Umzingwane	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.60
Binga	0.3	0.0	0.1	0.0	0.1	0.0	0.1	0.60
Umguzza	0.1	0.05	0.1	0.1	0.1	0.1	0.0	0.55
Lupane	0.0	0.05	0.2	0.1	0.1	0.1	0.0	0.55
Bulilima	0.1	0.0	0.05	0.1	0.1	0.05	0.1	0.50
Nkayi	0.0	0.05	0.2	0.0	0.1	0.0	0.0	0.35
Beitbridge	0.0	0.0	0.05	0.0	0.1	0.05	0.1	0.30
Hwange	0.0	0.0	0.1	0.0	0.1	0.05	0.0	0.25
Insiza	0.0	0.0	0.05	0.0	0.1	0.05	0.0	0.20
Gwanda	0.0	0.0	0.05	0.0	0.1	0.05	0.0	0.20
Mangwe	0.0	0.0	0.05	0.1	0.0	0.05	0.0	0.20
Matobo	0.0	0.0	0.05	0.0	0.0	0.1	0.0	0.15

Bubi district therefore become the highly ranked and proposed new district in the Southern Region for MASAP Phase 2. With regards to the Northern Region, the top four ranked districts based on aggregate scores were Buhera (0.95), Masvingo (0.80), Chiredzi (0.80), and Mutoko (0.65) – see Table 4. Buhera stood out with strong IP support and CTDO presence, while Masvingo and Chiredzi benefited from similar strengths. Mutoko also demonstrated a solid performance in population density.

Table 4: Potential two new district selection weights distribution Northern Region

District	IP	CTDO	PROD	POP DENSITY	VCs	Access	IRR	TOTAL WEIGHTS
Buhera	0.3	0.1	0.2	0.1	0.1	0.05	0.1	0.95
Masvingo	0.2	0.1	0.2	0.1	0.1	0	0.1	0.80
Chiredzi	0.2	0.1	0.2	0.1	0.1	0	0.1	0.80
Mutoko	0.2	0.1	0.0	0.1	0.1	0.05	0.1	0.65
Murewa	0.2	0.1	0.0	0.1	0.1	0.05	0.1	0.65
Mwenezi	0.2	0.1	0.1	0.1	0.1	0	0	0.60
Chipinge	0.2	0.1	0.05	0.0	0.1	0	0.1	0.55
Mudzi	0.3	0.1	0.0	0.0	0.1	0.05	0	0.55
Chivi	0.1	0.1	0.2	0.0	0.1	0	0.1	0.60
Goromonzi	0.1	0.05	0.0	0.1	0.1	0.1	0.1	0.55
Rushinga	0.1	0.1	0.0	0.1	0.1	0	0.1	0.50
Mhondoro Ngezi	0.1	0.05	0.0	0.1	0.1	0.05	0.1	0.50
Chegutu	0.1	0.05	0.0	0.1	0.1	0.05	0.1	0.50
Zaka	0	0.1	0.0	0.1	0.1	0	0.1	0.40

Accordingly, Buhera district become the highly ranked and proposed new district in the Southern Region for MASAP Phase 2.

4.1.3.3 Potential two new districts population and ward selection considerations

When selecting wards for project implementation under MASAP Phase II, which aims to reach 15,266 beneficiaries in Zimbabwe with a particular emphasis on achieving 60% participation from women, several critical factors must be considered. Targeting wards with a higher female population is essential, as it aligns with one of the major objectives of the project. In Bubi district, wards such as Ward 11 and Ward 21, with female populations of 3,810 and 3,062, respectively, emerge as significant candidates for enhanced focus. In addition to female participation, proximity to the district centre should be factored into the decision-making process. In some districts, certain wards can be located hundreds of kilometres from the centre, often along poorly maintained roads, which can hinder accessibility and project effectiveness.

Larger wards, like Ward 11, which has a total population of 7,597, and Ward 23, with 5,204 residents, present valuable opportunities for broader impact. Engaging these wards could potentially serve a greater number of beneficiaries compared to smaller wards. Furthermore, the average household size in Bubi, approximately 4.06, indicates that outreach strategies can effectively benefit entire family units, even if only one member of a household is contracted. This approach maximizes the impact of the project by engaging families collectively, particularly in areas with larger households, such as Ward 19, which has an average household size of 4.86.

With regards to Buhera district, wards with larger population, such as Ward 14, which has a total of 18,671 residents, and Ward 22, with 14,537 residents, represent prime candidates for greater outreach and impact due to their size and potential to serve a significant number of beneficiaries. Other wards with notable population include Ward 15 (10,096 total), Ward 23 (12,279 total), Ward 25 (12,248 total), Ward 28 (12,613 total), Ward 29 (12,375 total), and Ward 33 (13,247 total). These wards not only present opportunities for substantial engagement but also have considerable female population, with Ward 14 housing 10,089 females and Ward 22 containing 7,855 females. This alignment with the goal of achieving 60% female participation makes these wards particularly worthy of prioritization. Moreover, the average household size in these wards can indicate varying resource needs; for instance, Ward 22 has an average household size of 4.6. This suggests that families in such wards may face greater challenges requiring targeted support programs aimed at alleviating poverty and addressing other socio-economic issues.

4.2 Supporting functions

4.2.1 Types of communication services that support farming activities

Examination of communication services available to farmers shows significant disparities in access that impact farming activities. Mobile phone coverage is substantial across the whole sample, with 72.8% reporting access. This coverage is slightly higher in Mudzi at 74.6% compared to 70.8% in Tsholotsho, indicating that mobile communication is a vital tool for farmers in both districts for coordinating activities and accessing market information. However, internet access is significantly lower, with only 28.4% overall. Mudzi shows better access at 32.3%, while Tsholotsho trails at 24.2%. This disparity indicates that while mobile phones are widely used, limited internet access constrains the ability of farmers to utilize digital resources for agricultural research, market trends, and networking.

4.2.2 Extension services available to the farmers

Agricultural extension services represent another critical resource, with 74.8% of the sample confirming access. This service is notably higher in Tsholotsho (81.7%) than in Mudzi (68.5%), reflecting a regional difference in outreach and support provided to farmers. Gender analysis shows relatively consistent access to these services across male and female farmers. Extension support is provided mainly through the Agricultural Extension Services department (Agritex) under the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MoLAFWRD). The Ministry has at least one extension staff stationed in each ward in the two MASAP districts. The project also provides extension services through the IPs. Each IP seconded a Field Officer who works with the farmers and also coordinates support to the farmers in close consultations with Government extension officers in each ward in which the IP is partnering with MASAP. The MASAP project provides allowances and remuneration for the Field Officer for the IPs for every MASAP ward on a declining scale from the first year of MASAP project until the IPs takes full responsibility at the end of the MASAP project.

Interviews with Government extension staff highlighted the need for the IPs to enrol the services of additional private sector field officers given the vastness of the wards that they have to operate in terms of both distance and the number of farmers. As a result, the Government extension staff expressed that they end up doing unpaid work on behalf of the private sector field officers, and therefore getting exhausted in the process due to the heavy load. The other challenge was that the Government extension staff are sometimes co-opted into programs such as MASAP at a later stage in its implementation, which would compromise their capacity to provide the necessary guidance and technical advice.

4.2.3 Access to financial services

The analysis of the availability of appropriately designed financial products and services for the production and marketing of small grains and legumes indicates significant limitations within the two districts. Access to loans is very low, with only 6.8% reporting availability, while 93.2% lack credit access. Similarly, revolving funds are nearly non-existent, as only 3.6% have access. Savings options are also limited, with 92.8% of the sample unable to save effectively. Insurance is almost entirely unavailable, with a mere 0.8% of respondents having access. Conversely, while remittances show some potential support, with 9.6% reporting accessibility, it is still minimal. Key informants highlighted a number of factors leading to this lack of access to finance. Firstly, formal financial institutions lack the appetite for the high risk involved in providing loans to SHFs. There are therefore no available financial products that cater for these farmers. Secondly, the SHFs, despite capacity building initiatives being offered by the project and other stakeholders including the Ministry of SMEs on financial management, still lack the skills required to prepare and present financially sound and viable business plans. In addition, suitable insurance products are not available and would be too expensive for the farmers in the context of the high risks associated with the smallholder sector.

It should also be noted that more than half of the respondents (57.6%) lack access to Internal Savings and Lending Schemes (ISALs); however, 42.4% do participate. Given the relative significance of ISALs among the smallholder farmers, there is an opportunity to further strengthen these so that they could contribute more towards funding for inputs and other agricultural activities by the farmers.

Processors and aggregators have also highlighted the challenges that they face in accessing finance. Finance requirements are normally huge at the time of purchasing the commodity or seed from the farmers. These are funds that are required immediately after the farmers have harvested, otherwise any delays may prompt farmers to side market the seed or commodity. Delays associated with the collection of the seed or commodity can also result in increased post-harvest loss risks. In Ward 13 in Tsholotsho at the time of the field visits for the study, the assessment team found that some farmers had not been paid, two months after the IP had collected the grain. Discussions with the IP indicated that they had been facing challenges with access to finance in order to pay the farmers.

Broadly, it should be noted that the government also provides subsidies and financial support. For example, subsidies are offered for seeds and fertilizers specifically for small grains and legumes to encourage production among smallholder farmers¹. The Agricultural Finance Corporation (AFC) provides loans specifically tailored for farmers, offering both short-term and long-term credit facilities². Other key financiers for smallholder farmers include the Zimbabwe Agriculture Development Trust (ZADT); and agri-business finance of commercial banks such as Commercial Bank of Zimbabwe (CBZ) Holdings; NedBank Zimbabwe; ZB Financial Holdings; First Capital Bank and Stanbic Bank Zimbabwe. Microfinance companies also provide small loans to agribusiness owners, particularly those without access to formal banking services. In addition, the government periodically offers grants and subsidies to farmers through programs like the Presidential Input Scheme. However, these are sometimes difficult for farmers and value chain stakeholders to access due to many factors that include lack of information, high interest rates and the ever-changing macroeconomic environment. There is need for a lot of effort to capacitate farmers so that they are in a position to exploit the funding opportunities offered by these financial services providers. Under the MASAP model, the IPs can act as a conduit for the farmers to make use of the available funding opportunities.

¹ Publication: Agriculture Subsidies for Better Outcomes: Options For Zimbabwe - Open Knowledge Repository

² 10 SOURCES OF FUNDING FOR SMALL SCALE AGRIBUSINESS IN ZIMBABWE

4.3 Enabling environment

Under the enabling environment subsection, we attempt to identify and assess the key rules, regulations, policies and infrastructure that need to be put in place to support production and marketing of traditional grains and legumes by SHF – feeder roads, storage facilities, communications, access to inputs, processing facilities, etc.

4.3.1 Specific policies or regulations that have improved access to inputs

The beneficiaries were asked to state whether or not there have been some specific policies or programs that have improved their access to inputs. In the whole sample, 77.2% of respondents reported no improvements, signalling a concerning gap in support for farmers. This trend is observed in Mudzi, where 74.6% feel that there have been no improvements, and is slightly higher in Tsholotsho to 80.0%. The findings suggest that local initiatives or government policies have not effectively reached or impacted a majority of farmers in these districts. In Tsholotsho Ward 9 farmers highlighted that under the Government input distribution programme they are provided with only small quantities of seed and each farmer cannot get more than one type of crop variety. The relatively small proportion of farmers (22.8% overall) who believe they have benefited from specific policy interventions indicates a need for more robust agricultural policies tailored to address the unique challenges faced by farmers in both districts. Some of the challenges cited include limited access to quality inputs and resources that hampers ability to improve yields. Inadequate market access and price fluctuations create financial insecurity, discouraging the cultivation of these crops. Furthermore, intensification of the existing support systems and training can enhance farmer knowledge of best practices beyond what is currently prevailing.

4.3.2 Awareness on government policies supporting production and marketing of the crops

Analysis of awareness regarding government policies supporting the production and marketing of traditional grains and legumes reveals a substantial lack of knowledge among farmers. In the whole sample, 64.4% reported being unaware of any such policies, indicating a significant communication gap between policymakers and the farmers. This trend persists in both districts, with 61.5% of Mudzi respondents and 67.5% in Tsholotsho expressing a lack of awareness, highlighting district-level disparities that may result from differing outreach efforts or community engagement strategies. The analysis of known policies among those who acknowledged awareness reveals a strong recognition of the **Government Agriculture Input Scheme/Presidential Scheme**, with 53.9% of respondents identifying it as a significant support initiative. This indicates that this program has effectively reached many farmers. **Intwasa/Pfumvudza** also gained notable awareness at 39.3%, reflecting its relevance in promoting sustainable agricultural practices.

However, other policies such as **Command Agriculture** (1.1%) and **Pfumvudza/Intwasa** (2.2%) are far less recognized, indicating potential gaps in outreach and education about these programs. The study also found that there is lack of clear-cut distinction between the price that the farmer is paid for seed crop and the price that they are paid for the commodity crop. The general rule of thumb is that the seed producer price should be pegged at 20% above the commodity crop price which is normally set by the GMB³. However, in the commercial farming sector, the situation is different with farmers being guaranteed of a huge premium for seed crop production compared to commodity production. This could also be due to the big voice that commercial farmers have as they are better organised compared to their smallholder counterparts. There is therefore need for a re-look at the policies and regulations to ensure that the SHF are adequately compensated for their seed crop production efforts.

Indeed, the observation regarding the lack of a clear distinction between the prices paid to smallholder farmers for seed crops versus commodity crops is a critical issue that warrants further exploration. This pricing ambiguity can significantly impact the economic viability of smallholder farmers. When farmers are unable to differentiate between seed crop prices and commodity prices, it complicates their decision-making processes regarding which crops to cultivate. Additionally, the lack of clarity can discourage farmers from investing in high-quality seed production, as they may not perceive adequate financial returns on their investment. A clear pricing structure is essential not only for motivating smallholder farmers to engage in seed production but also for ensuring the overall sustainability of traditional grains in the market. Policymakers and stakeholders should address this gap to create a more transparent and equitable pricing mechanism, ultimately fostering a healthier agricultural ecosystem that supports smallholder farmers effectively.

³ Interview with one of the MASAP IPs.

With regards to some of the policies in place in the country, the National Agricultural Policy emphasizes diversifying crop production to include traditional grains like sorghum and millet to reduce reliance on maize⁴. This is crucial for food security, especially in drought-prone areas⁵. The **NDS2** guides the national trajectory toward achieving Vision 2030, with a focus on enhancing food and nutrition security, which involves promoting traditional grains. In addition, the Zimbabwe National Agriculture Policy Framework (NAPF 2019-2030) provides guidance to promote investment in agriculture. It aims to transform the agricultural sector through sustained agricultural production, productivity, and competitiveness⁶. This policy also supports climate-resilient sustainable intensification, restoring soil health, and optimizing water use. It also focuses on local genetic resources like small grains, pulses, and legumes. The government has also initiated crop intensification programs including support being provided to smallholder farmers. These programs aim to provide smallholder farmers with training, seeds, and farming inputs for small grains and legumes. The focus is on encouraging sustainable agricultural practices to improve yields and resilience. The pfumvudza programme, for example, maximizes conservation agriculture principles to increase crop production and resilience to climatic shocks⁷. In the 2020/21 season, it benefited 1.8 million households, increasing to 2.3 million in 2021/22 and 3.5 million in 2022/23⁸. For consumption, the government demonstrates commitment through the **inclusion of traditional grains in school feeding programs** and national agricultural strategies⁹. Efforts are also being made to make these indigenous foods more appealing to consumers.

There have also been major efforts in research and development through collaborations with agricultural research organizations to develop improved, drought-resistant, and high-yielding varieties of small grains and legumes. The Crop Breeding Institute develops new crop varieties adaptable to Zimbabwe's agro-ecological zones and provides breeders' seeds to support foundation seed production¹⁰. In this regard, MASAP has been working with the CBI as one of the partners in cowpeas and groundnut variety testing in Mudzi and Tsholotsho districts. Focus is on variety development, maintenance, and provision of breeders' seed for cereals, oilseeds, and pulse legumes. Key informants at Seed Services Institute highlighted the significance of establishment of a **national seed policy** and this embodies a significant advancement in the agricultural landscape, aiming to unify and clarify the regulatory framework surrounding seed production and distribution. This policy is being reviewed to encompass both formal and informal seed systems, allowing room for farmer-managed systems that can coexist with established practices. It was noted that the absence of a comprehensive policy has created gaps, leaving many farmer varieties unregistered and unsupported. Developing this policy will involve extensive stakeholder consultations, allowing farmers to voice their needs while recognizing the critical role of certified seeds in enhancing agricultural productivity and market sustainability.

The conversation around **farmer varieties** revealed a pressing need for specific systems that accommodate these unique crops within the formal seed registration framework. Currently, many farmer varieties fail to meet the formal registration criteria due to stringent requirements, particularly regarding classification and description. As farmers often exchange seeds informally within communities, the challenge arises when attempting to market these seed types officially. It is paramount that the regulatory framework evolves to validate and recognize farmer innovations while ensuring that such crops can be marketed effectively. This shift could empower farmers and improve biodiversity in agriculture, ultimately contributing to more resilient farming systems.

4.3.3 Infrastructure that farmers believe is necessary to support production

The analysis of infrastructure that farmers deem necessary to support the production of traditional grains and legumes reveals critical insights into their agricultural needs. The most cited requirement is **irrigation systems**, with 72.0% of respondents identifying this as essential. Borehole drilling and rehabilitation as well as rehabilitation and/or development of new irrigation schemes would help provided adequate financial resources are available. One potential IP, Farmbiz, has managed to work with at least 100 farmers at an irrigation scheme in Binga in the production of 17.5 ha of sorghum seed and 5 ha of millet seed over the past winter period. Construction and/or rehabilitation of existing small dams and weirs could also be critical in this endeavour as suggested by FGD

⁴ [ZIMBABWE FOOD SECURITY POLICY BRIEF](#)

⁵ [Small grain production as an adaptive strategy to climate change in Mangwe District, Matabeleland South in Zimbabwe - PMC - PubMed Central](#)

⁶ [NATIONAL AGRICULTURE POLICY FRAMEWORK 2019 - 2030 - HarvestPlus](#)

⁷ [Evolution of Agricultural Extension in Zimbabwe: Emerging Technologies, Training Needs and Future Possibilities - SciELO South Africa](#)

⁸ [Executive Summary - African Development Bank Group](#)

⁹ <https://www.heraldonline.co.zw/smart-foods-zimbabwean-traditional-grains-for-food-and-nutrition-security/>

¹⁰ [Division of Crops Research - Department of Research and Specialist Services](#)

participants in Ward 2 and 12 in Mudzi. This indicates a strong recognition of the importance of reliable water sources for enhancing productivity and mitigating the impacts of climate variability. **Storage facilities** are also crucial, with 52.9% of farmers highlighting their necessity. This suggests that effective post-harvest management is a priority, as proper storage can reduce losses and ensure a steady supply throughout the year. Additionally, **feeder roads** are seen as vital by 51.2% of respondents, underscoring the importance of connectivity for transporting goods to markets and improving access to resources. **Aggregation facilities**, noted by 24.9%, indicate that farmers see value in collective marketing and resource sharing. However, the need for **processing facilities** appears slightly inconsistent; while 59.3% express the need, the much lower figure of 4.6% directly cites processing as a top priority.

Figure 1 summarises the infrastructural needs of the farmers at district level. In Mudzi, **irrigation systems** are prioritized by 77.1% of farmers, reflecting a strong need for enhanced water management, while Tsholotsho follows with 67.5%. In some recent irrigation-supported programmes such as Smallholder Agricultural Cluster Project (SACP) and Smallholder Irrigation Revitalisation Programme (SIRP), drip irrigation technologies powered by solar energy have been prioritised given their potential to save water and ease with which women can operate the systems.

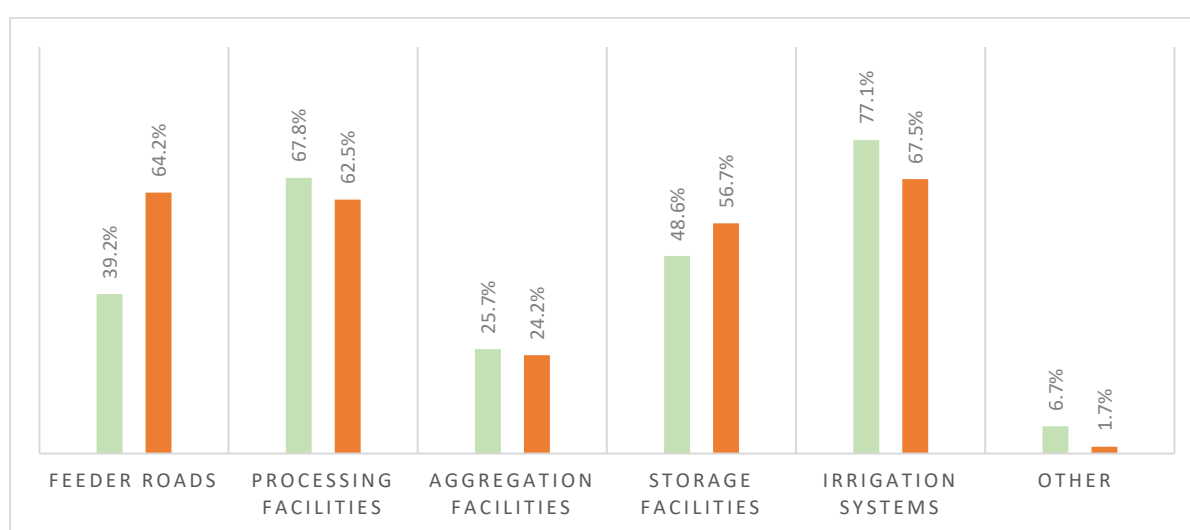


Figure 1: Infrastructure necessary to support the production of traditional grains and legumes

In the potential two targeted districts on Buhera and Bubi the study found that there is potential for irrigation, Table 5 summarises the available irrigation schemes and their statuses for Buhera district.

Table 5: Irrigation Schemes in Buhera District

Scheme Name	Ward	Water Capacity	Beneficiaries	Current crops
Murambinda (35ha)	14	Marovanyati dam-50 million m ³ (420 Mgl/yr)	36	Maize grain/ greens, tomatoes, sugar beans
Mwerahari (390ha)	15	Marovanyati Dam 50 million m ³ (4680 Mgl/yr)	1,600	Planned cereals, sugar beans, horticulture
Mutunha (18ha)	15	Mutunha Dam 3 million m ³ (216 Mgl/yr)	38	Sugar beans, maize, wheat
Bonde (364ha)	30	Deure river-Ruti dam 150 million m ³ (4368 Mgl/yr)	364	Maize, sugar beans
Deure (316ha)	33	Deure river- Ruti dam 150 million m ³ (3792 Mgl/yr)	700	Maize, chillies, sugar beans

Source: MoLAFWRD, February 2026

In Buhera, all five existing irrigation schemes are managed by Irrigation Management Committees (IMCs). The schemes include Murambinda (35 ha) with water capacity from Marovanyati Dam, benefiting 36 households and producing maize, tomatoes, and sugar beans. Mwerahari (390 ha) is still establishing its IMC, with cropping yet to commence; supported solely by the Green Climate Fund (GCF). Mutunha (18 ha) utilizes water from Mutunha Dam, serving 38 beneficiaries, growing sugar beans, maize, and wheat. Bonde (364 ha) and Deure (316 ha) both draw from the Deure River-Ruti Dam, benefiting 364 and 700 locals respectively, cultivating maize and sugar beans.

As shown in Figure 6, in Bubi District, several irrigation schemes are operational, all managed by IMCs. Pollards scheme (45 ha) benefits 102 households using water from Pollards Dam, cultivating maize, onions, and cabbages.

Table 6: Irrigation Schemes in Bubi District

Scheme Name	Ward	Water Capacity	Beneficiaries	Current crops
Pollards (45ha)	11	Pollards Dam – 3.2 million m ³ (63 Mgl/yr)	102	Maize, onions, cabbages, other vegetables
Hauke (40ha)	7	Hauke Dam	66	Maize, vegetables, sugar beans
Diglis Irrigation (20ha)	11	Pollards Dam – 3.2 million m ³ (63 Mgl/yr)	102	Maize, vegetables, sugar beans
Bubi-Lupane Irrigation (200ha)	3	Bubi-Lupane Dam 40 million m ³ (40,000 Mgl/yr)	100	Maize, winter wheat, sugar beans, butter nuts, vegetables
Inkosikazi Irrigation (60ha)	4 & 5	Deure river- Ruti dam 150 million m ³ (3792 Mgl/yr)	240	Maize, vegetables, sugar beans

Source: Various^{11, 12}

Hauke scheme (40 ha) has 66 beneficiaries growing maize and vegetables. The Diglis Irrigation scheme (20 ha), also using Pollards Dam, supports 102 beneficiaries with maize and sugar beans. Bubi-Lupane Irrigation (200 ha) serves 100 farmers with a capacity of 40 million m³, growing maize, winter wheat, and various vegetables. Lastly, Inkosikazi Irrigation (60 ha) benefits 240 people, focusing on maize and sugar beans.

Contracting farmers in Bubi and Buhera irrigation schemes for small grains and legumes seed multiplication presents strong possibilities. With established irrigation systems, farmers can cultivate reliable crops year-round, ensuring consistent supply. The presence of diverse beneficiaries already engaged in farming indicates readiness and capacity. Support from local irrigation management committees can facilitate training and resource sharing. However, market access and financial incentives will be crucial to motivate farmers and ensure successful seed multiplication initiatives within selected schemes.

Feeder roads are deemed crucial by a higher percentage of Tsholotsho farmers (64.2%) compared to Mudzi (39.2%). The poor road infrastructure presents challenges especially for the IPs when they travel to monitor implementation progress and to transport inputs to the wards. The road network is equally challenging for the farmers and Agritex staff during their daily routines across the wards. This shows that improved transportation infrastructure may be more pressing in Tsholotsho for enabling market access and resource distribution. The need for **storage facilities** is significant in both districts, with Mudzi at 48.6% and Tsholotsho at 56.7%. Female farmers across both districts show a slightly higher prioritization for storage (56.6% in Mudzi and 60.8% in Tsholotsho) compared to male farmers.

When it comes to **processing facilities**, the support varies, with 55.7% in Mudzi highlighting this need versus none in Tsholotsho, indicating a potential gap in agricultural development strategies in the two districts. Associated Foods Zimbabwe (AFZ) provided a group of farmers in Mudzi Ward 2 with a groundnut shelling machine through a matching grant facility in which the farmers contributed cash and locally available building materials and labour (70% by MASAP and 30% by the farmers) in 2023. In the 2024/25 season the group highlighted that it has been making use of the machine. The shelling machine is now making it easy for the farmers to process the harvest. Everyone pays for using the machine (including group members). The fee is currently pegged at \$1.50 per 50kg bag or 3 buckets whenever there is a good harvest that enables the farmers to process some grain. The intention of the group is to use the factory for processing and packaging of traditional grains for the market.

4.4 Current production

Total production of the four MASAP II value chains using the 2024/25 crop production statistics was distributed as follows – cowpeas (24,210 MT); groundnuts (86,449 MT); pearl millet (339,169 MT); and sorghum (434,249 MT). Table 7 shows that proportion that each of the top-5 ranked districts contributed to total national production in metric tons of each MASAP value chain crop. The ranking is organized based on the average contribution across the four value chains.

¹¹ [Bubi irrigation scheme brings multiple benefits - herald](#)

¹² fnc.org.zw/wp-content/uploads/2023/04/Bubi-District-Profile.pdf

Table 7: Top-5 in Northern Districts and Top-5 in Southern districts ranking on contribution towards total national production for MASAP value chain crops in the 2024/25 season

District	Cowpea	Groundnuts	Pearl Millet	Sorghum	Average
Top-5 Northern districts					
Gokwe South	10.3%	5.2%	1.5%	4.1%	5.3%
Chiredzi	4.4%	1.2%	3.8%	11.6%	5.2%
Buhera	1.2%	9.1%	3.7%	2.1%	4.0%
Mwenezi	1.9%	1.1%	8.9%	2.7%	3.6%
Gutu	1.0%	1.3%	9.1%	1.9%	3.3%
Top-5 Southern districts					
Binga	0.9%	0.2%	1.8%	2.5%	1.4%
Tsholotsho	0.7%	0.3%	1.8%	2.5%	1.3%
Matobo	0.7%	0.6%	0.4%	2.2%	1.0%
Gwanda	0.7%	0.6%	0.4%	2.2%	1.0%
Umzingwane	0.7%	0.6%	0.4%	2.2%	1.0%

Source: ZIMSTAT

Therefore, the overall highest ranked districts include Gokwe South with overall 5.3% of total national produce followed by Chiredzi (5.2%); Buhera (4.0%); Mwenezi (3.6%); and Gutu (3.35). In the Southern parts of the country Binga districts is ranked highest with 1.4% of total national output followed by Tsholotsho (1.3%); followed by Matobo; Gwanda; and Umzingwane all on 1.0%.

According to the Crops, Livestock and Fisheries Assessment (CLAFA-2) for the 2024/25 summer season report, the total annual production of Bambara nuts was 24,922 MT in the 2024/25 agricultural season (see Table 8). The top-5 districts located in Northern part of the country – Buhera; Mwenezi; Bikita; Zaka; and Murehwa – accounted for 56.8% of the total national produce, while the top-20 accounted for 81.6% (see Table 2). The largest producer was Bikita district which accounted for slightly below a quarter of national production (22.0%). The other top districts in the 2024/25 season were Mwenezi (11.4%); Bikita (11.3%); Zaka (7.1%); and Murehwa (5.0%). The top 5 districts in the Northern part of the country contributed 496 MT equivalent to 2.0% of total national Bambara nut production.

Table 8: Top-5 Northern districts and top-5 Southern districts ranking on contribution towards total national production for Bambara Nut in the 2024/25 season

District	Average annual Bambara Nut production in the 2024/25 season	As a proportion of national total production in the 2024/25 season
Top-5 Northern districts		
Buhera	5,473	22.0%
Mwenezi	2,843	11.4%
Bikita	2,824	11.3%
Zaka	1,775	7.1%
Murehwa	1,248	5.0%
Top-5 Southern districts		
Umzingwane	204	0.8
Mangwe	120	0.5
Beitbridge	90	0.4
Bulilima	61	0.2
Binga	21	0.1

Source: ZIMSTAT

The estimated round nuts production increased by **31%** from **19,030 MT** in the 2023/2024 season to 24,922 MT in the current season. Average yield increased from 0.16 tons per hectare in 2023/24 to 0.32 tons per hectare in 2024/25.

4.4.1 Constraints on farmer capacity to produce traditional grains

The analysis of constraints impacting the production of traditional grains like sorghum and millet reveals several key challenges. The most significant constraint is inadequate rains, affecting 26.8% of farmers. One of the IPs in the sorghum seed value chain highlighted that some farmers end up consuming sorghum which they would have

been contracted for seed due to lack of adequate crop yields as a result of the droughts¹³. Another key informant buttressed this issue, noting that addressing low rainfall requires implementing effective irrigation solutions and developing robust partnerships with financial institutions to secure necessary funding for farmers¹⁴. The other constraint mentioned is the limited access to essential inputs like fertilizers and chemicals at 14.8%. Furthermore, limited access to rewarding markets accounts for 13.2%, significantly influencing willingness of the farmer to invest. Related to the marketing issue has been the late payments to the farmers by some IPs. In Mudzi the study team was informed that during one of the past seasons some farmers ended up making calls to the ward Councillor voicing concerns about late payments for sorghum that had been delivered several months prior. At the time of the field visits for the MSA, at the beginning of November 2025, farmers in Ward 13 in Tsholotsho had not been paid for sorghum and millet delivered to some of the IPs at the beginning of September 2025, and yet they had been made to understand that the payments would be made within 14 days of delivery of the crop. The farmers argued that the late payments sometimes force them into selling critical assets such as livestock to cater for some essential needs and emergencies.

Other constraints mentioned include poor soil quality which affects 10.8% of the farmers, while pests and diseases impact 9.8%. In one of the FGDs with farmers in Mudzi Ward 15, it was highlighted that some of the inputs such as chemicals are usually delivered late thus compromising the quality of the yield. In Tsholotsho an Agritex officer noted that due to lack of a full package of inputs, the farmers struggled with fall armyworm in the 2024/25 season which eventually resulted in reduced yield. It should be noted that the fall armyworm is a generally difficult-to-control pest. Control is usually instituted by the government depending on thresholds. Other notable issues include poor quality seeds (7.2%), most of the farmers across the two districts were generally happy with the performance of the Marcia sorghum variety which they are being contracted. Other challenges mentioned include high labour demands (4.5%), and poor agronomical practices (4.8%). High postharvest losses, limited know-how, lack of adequate land, and inhibitive regulations are also relevant but rank lower in priority. Furthermore, farmers expressed a need for timely access to inputs. At the time of the field work for the MSA, at the start of November 2025, farmers across the two districts had not started receiving inputs for the 2025/26 cropping season and had become very anxious because the rains had started falling. The general view among the stakeholders was that the inputs should be made readily available to farmers by the middle of September of each year given that in some of the years the rains can fall as early as October. Added to these challenges was the importance of a full package approach that includes not only seeds but also fertilizers and pesticides. This integrated strategy can improve crop performance and ensure that farmers are fully equipped to manage their planting decisions, ultimately leading to increased agricultural productivity.

4.4.2 Constraints on farmer capacity to produce legumes

Analyzing the constraints on legume production in Mudzi and Tsholotsho reveals distinct challenges between the two districts. In Mudzi, inadequate rains is the most significant issue, affecting 40.0% of farmers, whereas Tsholotsho faces less severity at 10.8%. In the 2024/25 season the farmers in Mudzi ended up not growing all the groundnut seeds because of late planting, and this seed was eventually returned to the IP. In Mudzi Ward 12 the farmers raised the prospect of the project exploring the Nyamatawa Irrigation scheme for growing of groundnuts seed given that some farmers are already growing seed maize at the same scheme. For example, the MGV8 groundnut variety which could not do well under dryland conditions, could be tried under irrigation conditions at the scheme. Lack of access to inputs from the market or from the IP such as fertilizers and chemicals is a major concern in Mudzi, with 20.8% impacted, compared to 12.5% in Tsholotsho. In Tsholotsho Ward 9 farmers in an FGD highlighted lack of finance in the form of agricultural loans which hinder their ability to procure inputs and meet other costs. In Mudzi FGD participants under contract with CBI noted that their 2024/25 cowpeas seed yield was negatively affected by aphids because they lacked the relevant chemicals. Poor quality seeds rank highly in both districts – 14.6% in Mudzi and 9.2% in Tsholotsho – affecting yield potential. Market access shows slight variation, with Mudzi at 11.5% and Tsholotsho at 10.8%. Additionally, Mudzi experiences greater challenges with high labour demands at 9.6%, in contrast to 3.3% in Tsholotsho. Poor soils affect 13.8% of producers in Mudzi, but only 1.7% in Tsholotsho. In Mudzi, the study was informed that in the 2023/24 season groundnuts seed farmers were also supplied with 50kg of gypsum per hectare to stimulate pegging and podding. Overall, addressing these district-specific constraints, particularly access to inputs and rainfall issues, is crucial for enhancing legume production.

¹³ Source: Interview with Zadzamatura Field Officer, Mudzi District

¹⁴ Source: Interview with the Crop Breeding Institute Representative

4.4.3 Constraints on farmers capacity to produce Bambara nut

Inadequate rains are the most significant issue, affecting 24.0% of producers, followed closely by a lack of access to inputs at 20.0%. Poor quality seeds also represent a notable challenge, impacting 12.8% of farmers. Market access concerns affect 12.0%, while poor soil quality is a significant factor for 11.6% of the farmers. Pests and diseases influence production for 9.8% of the SHFs. FGD participants in Tsholotsho Ward 9 highlighted that pests and diseases could present challenges in Bambara nut production, as well as lack of viable markets and shortage of quality inputs such as seed varieties that are favourable in their area. In order to access regional and international markets for Bambara nut, including the lucrative European Union (EU) market, there are export market requirements that are needed and will need significant resources to put in place. In the EU, Bambara nuts will need to first get registered through the Novel Food Certification process. According to a Welthungerhilfe (WHH) representative, the organization had initiated this process under the SCOPE4IVC project, but it could not be completed by the end of the project in 2023. Producers and processors may also need to attain Global GAP certification¹⁵ to enhance access to markets for Bambara nuts. According to WHH, there is potential for exports of Bambara nuts into the EU and the Middle East markets. A lot of the Bambara nuts also cross the border through to South Africa.

Other issues include poor agronomical practices (7.2%), limited know-how (6.3%), and high labour demands (4.0%). One key informant also buttressed the challenges related to inconsistent rain patterns and insufficient attention to crop management that significantly hinder the productivity of crops like Bambara nuts¹⁶. After positively engaging the National Gene Bank, and being given tiny volumes of Bambara nut seeds of other land races and varieties, the Bio Innovation Zimbabwe (BIZ) conducted on-farm participatory variety selections. However, the results were compromised by the 2023-2024 unfavourable rainy season. Another factor is that farmers tend to prioritize staple crops like maize over others, which can be detrimental to the development and yield of less-prominent varieties.

Additionally, a lack of reliable seed sources and production techniques often results in disappointing harvests of Bambara nut. According to a 2023 report on the SCOPE4IVC project, the high cost of production in the country in which, for example, a 50kg bag of fertilizer is bought at more than US\$37 dollars leads to inconsistencies in supply of Bambara nuts¹⁷. The analysis of constraints affecting Bambara nut production in Mudzi and Tsholotsho highlights significant differences between the districts based on the survey data. In Mudzi, inadequate rains are the foremost constraint, impacting 36.2% of farmers, while Tsholotsho faces this issue less severely at 10.8%. Lack of access to inputs is also critical, affecting 23.8% of producers in Mudzi compared to 15.8% in Tsholotsho. Poor quality seeds are a concern in both districts, with 13.8% in Mudzi and 11.7% in Tsholotsho. Mudzi experiences higher postharvest losses at 2.3%, while Tsholotsho sees 5.8%. Other challenges include market access (14.6% in Mudzi, 9.2% in Tsholotsho) and soil quality issues (14.6% in Mudzi, 8.3% in Tsholotsho). The Bambara nut crop is always planted late, because farmers always will give priority to other cash crops such as maize, and then sorghum, and then groundnuts, and lastly comes Bambara nuts. It is also grown in a field which is usually far away. So, the field is visited less and the weeding is not done in time.

4.5 Farmer interest and capacity

In the following subsection the MSA discusses farmer interest and capacity. This involves assessing the presence of farmers already growing or expressing interest in growing traditional grains and legumes seed and commodity for the market, their current knowledge and practices and why interested farmers are not currently growing the crops.

4.5.1 Main reasons for low interest in producing the crops

Table 9 outlines the primary reasons for a lack of interest in producing various crops, including sorghum, millet, groundnuts, and cowpeas. The most significant barrier across all crops is the "lack of readily available market," particularly prominent in cowpeas (46.9%), which discourages growers due to uncertainties about sales. Additionally, "lack of adequate funding" emerges as a common concern, affecting 21.7% of respondents for

¹⁵ This is a voluntary certification that verifies that agricultural products have been produced using sustainable and safe practices, covering food safety, worker welfare, environmental impact, and animal welfare.

¹⁶ Interview with Bio Innovative Zimbabwe Representative

¹⁷ "Support the Mobilisation of Data and Review of the ZEPA Project Performance", End of Project Evaluation Report, (November 2023), page 28.

sorghum and 23.8% for both groundnuts and millet. This lack of financial resources hinders investment in production.

Table 9: Main reason behind lack of interest in producing the crop

Main reason behind lack of interest in producing the crop	Sorghum	Millet	Groundnuts	Cowpeas
Too expensive to produce	17.4%	16.7%	23.8%	18.8%
High postharvest losses	17.4%	0.0%	4.8%	9.4%
Lack of readily available market	26.1%	20.0%	23.8%	46.9%
Inhibitive government/local regulations	0.0%	0.0%	4.8%	0.0%
Lack of adequate funding	21.7%	20.0%	23.8%	15.6%
Lack of knowledge of available markets access to markets	13.0%	3.3%	14.3%	18.8%
Lack of knowledge on how to grow the crop	4.3%	10.0%	4.8%	9.4%
No adequate land	4.3%	3.3%	14.3%	12.5%
Climatic conditions do not allow	13.0%	3.3%	33.3%	12.5%
No quality seed available	11.1%	0.0%	9.5%	3.7%
Not suitable for this area	5.6%	9.5%	4.8%	0.0%
Pest damage (e.g. birds)	5.6%	19.0%	14.3%	0.0%
Diseases	5.6%	4.8%	4.8%	0.0%

Another notable reason is that producing groundnuts is perceived as "too expensive," with 23.8% of respondents indicating this challenge. High postharvest losses also concern producers, especially for sorghum (17.4%). Together, these challenges – limited market access, inadequate funding, high production costs, and postharvest losses – create a substantial disincentive for potential cultivators. Addressing these issues through enhanced market infrastructure, financial support, and practical guidance could encourage greater interest in the production and marketing of these crops.

4.5.2 Main reasons for low interest in producing the Bambara nut

Figure 2 identifies key reasons behind the lack of interest in growing Bambara nuts among respondents. The most significant factor is the "lack of readily available market," reported by 40.3% of participants. This indicates that without a dependable market for sales, potential growers may hesitate to invest time and resources into production. The point was also highlighted by FGD participants in Mudzi Ward 15 who indicated that they would grow a lot of Bambara nut and Cowpeas if the market becomes readily available. Seed producers such as EASI Seed and Valley Seeds have also highlighted that they would be willing to invest in Bambara nut seed production if the market for the seed becomes readily available.

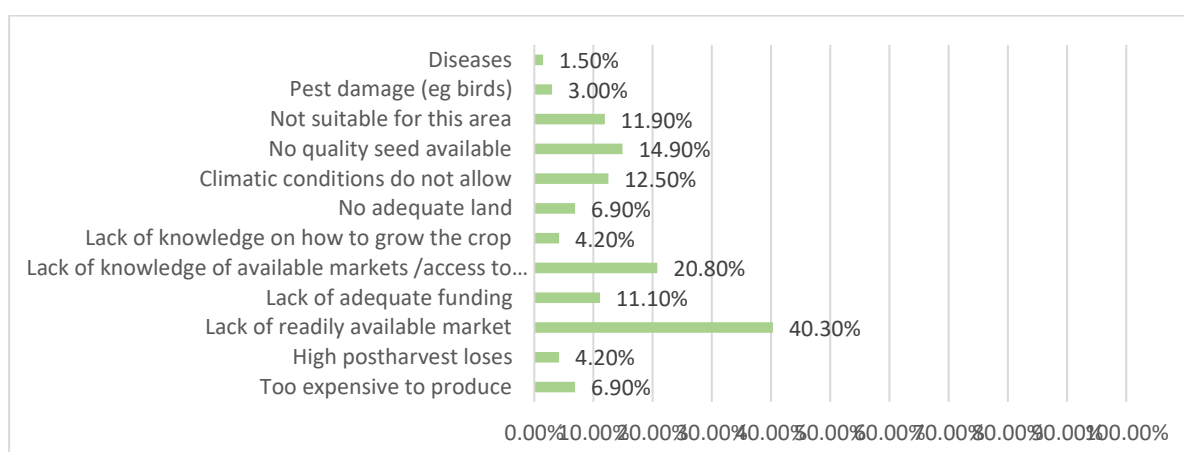


Figure 2: Reasons behind lack of interest in growing Bambara nut

Additionally, 20.8% cite a "lack of knowledge of available markets/access to markets," which further complicates the ability to sell the crop. Other significant barriers include the unavailability of quality seeds (14.9%) and insufficient funding (11.1%), both of which impact production viability. Discussions with an EASI Seeds representative indicated that they were aware of only one good variety of Bambara nut that has come through the CBI but has not been released onto the market. The cumulative effect of these challenges creates a

disincentive for cultivation, as growers weigh the risks against potential benefits. Addressing these issues through improved market access, education about sales avenues, and enhanced seed quality could foster greater interest in Bambara nut cultivation.

4.6 Past and current projects

This subsection focuses on past and current projects. It identifies and analyzes government, donor, farmer organisations, CSOs, CBOs and private sector funded projects that promoted or are promoting the production and marketing of traditional grains and legumes seed and commodity by SHF.

4.6.1 Past and current projects on traditional grains and legumes

Across the whole sample, 60% of respondents indicated lack of knowledge of any recent or current projects promoting or supporting smallholder farmers in growing traditional grains and legumes. This sentiment is consistent across both districts, Mudzi (59.2%) and Tsholotsho (60.8%). Conversely, 40% of the respondents reported the existence of such projects, with slight variations between genders; 40.6% of females and 38.9% of males noted that they are aware of projects supporting traditional grains.

The analysis of past projects promoting traditional grains reveals varied participations and focuses across different initiatives as highlighted by the farmers surveyed (see Figure 3). The MASAP project stands out, recognised by a significant 33% of respondents overall, with notable recognition in Tsholotsho (51.2%). The project appears to play a crucial role in enhancing smallholder support within the district. The Pfumbvudza initiative follows, with 21% of respondents recognizing its impact, particularly in Tsholotsho (42.6%). This initiative by the Government prioritizes sustainable agricultural practices and plays a vital role in improving food security.

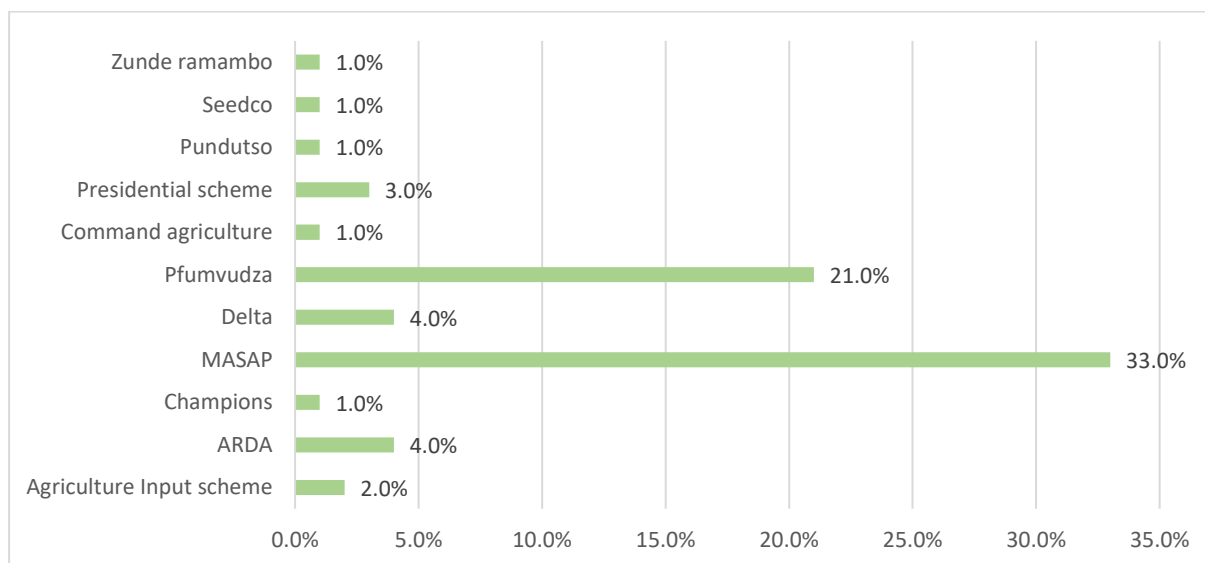


Figure 3: Specific projects that supported activities related to traditional grains crops

Other initiatives, such as **ARDA** (4%) and **Delta** (4%), show recognition but with limited reach in the community. **Champions Seeds** (1%) and **Seedco** (1%) also received minimal acknowledgment, indicating they may not have had a significant footprint. Projects like **Command Agriculture** and **Presidential schemes** garnered low recognition, suggesting limited engagement and visibility among farmers. Therefore, while MASAP and Pfumbvudza are identified as pivotal in promoting traditional grains and legumes, most other projects struggle to achieve substantial engagement, highlighting potential opportunities to enhance the reach and effectiveness of support initiatives for smallholder farmers in the community.

With regards to the two new proposed MASAP Phase 2 districts, in Buhera district, several current projects are focused on empowering farmers for a climate-resilient future through market systems, notably the Sida-supported SIMBISO initiative, which also extends to Bulilima, Gutu, and Mberengwa. Previously, the district benefited from various projects, including ENSURE, funded by USAID and supported by World Vision, which addressed food security, nutrition, and water, sanitation, and hygiene (WASH) as well as implementing solar-powered irrigation systems. Another significant past initiative was the Takunda project, also funded by United State Agency for International Development (USAID) and led by CARE Zimbabwe, which established 111 gardens and initiated ISAL

groups. Additionally, the United National Educational and Scientific Organisation (UNESCO)/Adaptation Fund contributed to climate adaptation efforts in the region. In contrast, Bubi district currently has no identified projects. However, past initiatives include the SCOPE4IVC project under the TAZEPA program and the Zimbabwe Resilience Building Project (ZRBF), which aimed to enhance resilience within the community.

4.6.2 Past and current projects on Bambara nut

One of the projects that has promoted Bambara nut has been the BIZ initiative which has been in Mudzi as part of different projects for a while, since the end of 2022. The organisation has a number of target crops and work around trying to improve production. This also includes promoting local consumption, and creating linkages with producers to markets and consumers. In the 2025/26 season, Pundutso, a local NGO, with support from BIZ has been supporting farmers in the production of sorghum, cowpeas, Bambara nuts and forestry related products. Pundutso supports farmers on Bambara nuts in Ward 1; Ward 2; Ward 3; and Ward 5 in Mudzi (through lead farmers). An this is for seed production and multiplication. When the lead farmers have harvested, they are expected to re-issue the seed to the other farmers. The remaining product is sold to the GMB at \$300 per ton. The SCOPE4IVC project under the TAZEPA project (2018-2023) focused on several value chains across four districts that included Bubi, Umzingwane, Chivi and Gokwe with Bubi and Umzingwane districts also focusing at the Bambara nuts value chain. However, the main conclusion of the end of project evaluation report for this project was that the two districts experienced low productivity issues with Bambara nuts mainly due to low rainfall and high input costs for the farmers.

5. Conclusions

The MSA offers some insights into the various interconnected actors and challenges within the traditional grains and legumes sectors. It highlights several conclusions regarding the structure, dynamics, and constraints that influence agricultural production and market access for SHFs. The mapping of core market actors reveals a complex ecosystem comprising government entities, private sector stakeholders, CSOs, and CBOs. Central to this ecosystem is the MoLAFWRD, which oversees agricultural governance and policy regulations. Seed suppliers, SHFs, agricultural contractors, agro-processors, and retailers play pivotal roles, collectively contributing to the seed value chain and ensuring that quality seeds and produce reach consumers. However, challenges remain due to disjointed stakeholder engagements and a lack of comprehensive regulations to cover both informal and formal seed systems. Other constraints affecting SHFs include inadequate rainfall, limited access to quality inputs such as fertilizers and pesticides, and late payments from contractors for delivered crops. These problems exacerbate financial insecurity and hinder the willingness of farmers to invest in traditional grains and legumes, impacting overall food security. Furthermore, the prevalent lack of awareness regarding government policies aimed at supporting agricultural production underscores a communication gap between policymakers and the farming community.

On the demand side, the analysis highlights a significant disconnect between capacity of SHFs to produce seed and commodity crops and the requirement of markets for those products. Many farmers are deterred from growing specific crops due to limited market availability, high production costs, and the complexities associated with quality input procurement. A majority of farmers interviewed in Mudzi and Tsholotsho perceive cowpeas and groundnuts as financially unviable, attributed to high postharvest losses and inadequate market access. However, gross margin analysis shows that these crops can still be quite viable if the farmers are provided with the right information and incentives. Conversely, crops like pearl millet and sorghum show favourable gross margins even in the two current MASAP districts, suggesting a better alignment with market demands in the districts. Bambara nuts also shows good profitability based on data from literature review.

The analysis indicates a pressing need for improved agricultural policies that address the unique challenges faced by SHFs. The existing national agricultural policies provide a framework for diversifying crop production but lack specificity regarding the seed pricing mechanisms that favour smallholder producers. Addressing this gap will be crucial to establish fair compensation structures that motivate farmers to engage actively in seed production. Moreover, the emerging national seed policy represents an opportunity to rectify the existing inconsistencies in the seed management system. The voices of the farmers must be integrated into the policy formulation process to ensure that their needs and realities are reflected in the governance frameworks. In terms of infrastructure, SHFs emphasize the critical need for improved irrigation systems, storage facilities, and feeder roads. The analysis reveals that irrigation remains a dominant concern, with many farmers indicating that reliable water sources are

essential for enhancing productivity, especially in the face of climatic variabilities. Storage facilities also play a pivotal role in minimizing postharvest losses, contributing to food security.

Drawing from the findings, broadening the scope of the MASAP Phase II project to include districts like Bubi and Buhera should be pursued, focusing on conducive climatic conditions and the presence of prospective intervention partners. The analysis advocates for targeted support aimed at enhancing seed production and marketing, suggesting that the project explore partnerships with local agro-processors and financial institutions to improve market access. Encouraging collaborative models that promote participatory breeding and variety selection will empower farmers and enhance their capacities to respond to emerging market opportunities. There are also opportunities for the project to identify viable and functional irrigation schemes in the two districts in which IPs can to pursue seed multiplication under irrigation. Additionally, leveraging existing relationships with private sector, NGOs and CBOs can provide crucial support in educating farmers about available market policies, strengthening their engagement in the cultivation of traditional grains and legumes.

6. Recommendations

It is crucial to prioritize the needs and perspectives of smallholder farmers within the MASAP Phase 2 value chains. The following recommendations are designed to address specific challenges identified in the MSA and field visits, aimed at enhancing support systems that empower farmers and improve their productivity by addressing market failure challenges. These recommendations focus on critical areas such as participatory variety selection, value addition, timely payment processing, and effective collaboration between stakeholders.

6.1 Recommendations on potential new districts

1. The MSA recommends that the MASAP Phase II project takes up Bubi district catering for the Southern parts of the country and Buhera district catering for the Northern parts of the country. The analysis provided in the report shows that Bubi and Buhera districts have conducive climatic conditions, existing and potential IPs willing to engage farmers in the two districts. The report also takes note of the current and previous projects in the two districts showcasing that the smallholder farmers in the districts already have some significant capacities and knowhow to participate more effectively in the MASAP Phase 2 project.
2. The study recommends that Southern Districts concentrate on the sorghum, pearl millet and cowpeas value chains and exclude groundnuts and Bambara nuts given the low productivity observed in the production of the latter two VCs. The Northern Region can pursue all five VCs.

6.2 Recommendations on potential partnerships on the seed value chain in the new districts

3. The MSA recommends that in Bubi district the project explores interventions aimed at seed production and multiplication in the sorghum, pearl millet, cowpeas and Bambara nut (for the later, only under irrigation conditions).
4. There is potential to pursue the Farmbiz model of producing seed under irrigation conditions – including winter production (potentially in Bubi and Buhera).
5. In Buhera district the project should pursue activities aimed at the production of seed across all the five VCs (sorghum; pearl millet; groundnuts, cowpeas; and Bambara nuts).

6.3 Recommendations on potential partnerships on the seed value chain in the current districts

6. Project maintains and strengthens the current relationships with the existing IPs in seed production and multiplication in Mudzi district with partners such as Zadzamatura and NTS. Huge potential to work with new partners in this district such as Mukushi Seeds and EASI Seeds who also have experience working in this district.
7. Apart from the current four MASAP value chains, there are opportunities to work with farmers in the Bambara nut seed value chain in Mudzi district given some of the related work on Bambara nuts already being done under the Bio Innovation Zimbabwe initiatives.
8. In Tsholotsho district the findings seem to show that there have been significant challenges with productivity issues especially on seed multiplication. The project may therefore scale down in terms of activities related to seed multiplication and focus more on commodity production activities.

6.4 Recommendations on potential partnerships on the commodity value chain in the new districts

9. It is recommended that the project engages Delta Corporation in the commodity production of sorghum and millet in Buhera district. Also the possibility of engaging Delta in Mudzi district on the same value chains in light of the company's current presence in Ward 5 of that district.
10. Project should also engage with Ingwebu Breweries in the production of sorghum and millet in Bubi district. Further, in Bubi, Ocean Foods and Buntu Foods have also indicated their willingness to strengthen activities in this district and could participate as off-takers of cowpeas, sorghum and pearl millet.

Annex 1: List of stakeholders interviewed

#	Name	Surname	Gender	Position	Organisation	Contact #	e-mail address
1	Alex	Mugova	M	Team Leader	MASAP	+260763629219	ALMUG@niras.com
2	Lloyd	Musanesa	M	Deputy Team Leader	MASAP	773001506	LLMU@niras.com
3	Marciline	Fusire	F	Community Engagement Advisor	MASAP	780312662	MAFU@niras.com
4	Thabani	Moyo	M	MEL Manager	MASAP	712305464	THMO@niras.com
5	Henry	Chimboza	M	Private Sector Engagement Advisor	MASAP	777053582	HECH@niras.com
6	Rutger	Persson	M	Legal Advisor	MASAP		rutger.persson@niras.com
7	Kristina		F	Project Director	MASAP		Kristina.Mastroianni@niras.com
8	Andrew	Mushita	M	Country Director	CTDO		andrew@ctdt.co.zw
9	Fred	Zinanga	M	Head of Programmes	CTDO		fred@ctdt.co.zw
10	Bulisani	Ncube	M	Project Manager	SDC		bulisani.ncube@eda.admin.ch
11	Michael	Dawes	M	Private Sector Advisor	SDC	772212201	michael@apt.co.zw
12	Louisa	Makumbe	F	Director	MoLAFWRD SPME	772675986	makumbelouisa@gmail.com
13	Thabani	Siziba	M	Deputy Director	MoLAFWRD SPME	774674981	
14	George	Chigodora	M	Agric Economist	MoLAFWRD SPME	782620137	
15	Eng. Bezzel	Chitsungu	M	Director	MoLAFWRD DOI	772498886	eng.chitsungu@gmail.com
16	Dennis	Simbe	M	Traditional Grains and Legumes Manager	Zadzamatura	774864006	
17	Kenny	Ncube	M	Field Officer	Zadzamatura, Tsholotsho	776741338	
18	Right	Katsiga	M	Field Officer	Zadzamatura Mudzi	787093905	
19	Amon	Mwashireni	M	General Manager Responsible for Sales	EASI Seeds	772437543	
20	Takunda	Jonga	M	Business Analyst	EASI Seeds	772437543	
21	Tich	Maponga	M	General Manager	Valley Seeds	772409579	
22	Prince	Matova	M	Breeder	Mukushi Seeds	772371385	
23	Simba	Gava	M	Contact Person	National Tested Seeds	772538480	
24	Wally	Zonge	M	Marketing & Production	Champion Seeds	771141407 712163205	wally@championseeds.co.zw
25	Tawanda	Sithole	M	Administrator	Champions Seeds	773287826	tawasithole@gmail.com ; tsubwe@gmail.com
26	Michek	Maravanyika	M	Managing Director	Farmbiz	773303064 713346263	misheck@farmbiz.co.zw
27	Rinos	Mashongera	M	Contact Person	K2 Seeds	776057488	
28	Dior	Pote	M	Contact Person	SeedCo	715351449	
29	Purity	Mazibuko	F	Acting Head	Crop Breeding Institute	773943583	puritymazibuko@gmail.com
30	Kholeka	Ndlovu	F	Production Manager	Nutrie Foods	783400077	
31	Michael	Nyamasvinga	M	Contact Person	Nyamasvinga Investment	773201912	
32	Nobukhosi	Ndlovu	F	Marketing Manager	Nutrie Foods	773210307	
33	Cephas	Marima	M	Accountant	Ocean Foods	773433721	accountant@theoceansinc.com
34	Trust	Marumisa	M	Operations Manager	Buntu Foods	772774256	operationsbuntufoods@gmail.com
35	Golden	Muoni	M	General Manager	Buntu Foods		gmuoni@gmail.com

#	Name	Surname	Gender	Position	Organisation	Contact #	e-mail address
36	Hellen	Dube	F	Marketing Manager	ProFeeds	778050623	
37	Sibonginkosi	Msebele	F	Field Officer	Buntu Foods	775524719	
38	Bekezele	Bhule	F	Field Officer	Ocean Foods, Tsholotsho	772319755	
39	Joseph	Mavu	M	Contact Person	Liquid Refreshment Zimbabwe	774059159	
40	Grace	Sithole	F	Agricultural Services General Manager	Delta Corporation	773058914	
41	Graeme	Murdoch	M	Contact Person	PHI Holdings	772570724	
42	Alfonce	Marecha	M	General Manager	AgriFoods	772861052	
43	Abigail	Busangavanye	F	Admin Assistant	AgriFoods	771021175	
44	Caroline	Jacquet	F	Project Manager	Bio Innovation Zimbabwe (BIZ)		caroline@bio-innovation.org
45	Tariro	Mungwena	F	Buyer	Glytime Foods	777816844	
46	Tinashe	Mazaba	M	Buyer	Glytime Foods	777816844	
47	Thomas	Garwe	M	Pfumvudza Field Officer	Mudzi District	775792375	
48	Patience	Kabasa	F	District Economist	DDC	774084510	
49	Edward	Sedze	M	Social Services	Mudzi District	772857840	
50	Roben	Makazhu	M	District Development Officer (Women Affairs)	Mudzi District	778861750	
51	Tinashe	Chirimuuta	M	Nutritionist	Mudzi District	774890806	
52	Mvura	Chimombe	M	Represented the CEO	Mudzi RDC	774077698	
53	Norest	Mugiya	M	Assistant DDC	Mudzi Local Government	774084510	
54	Thomas	Katsande	M	Farmer	Mudzi Ward 2	713778544	
55	Lloyd Nyasha	Ndokera	M	Agric Extension Officer	Mudzi Ward 3	717155479	
56	Fortunate	Chimbangu	M	Agric Extension Officer	Mudzi Ward 5	774076370	
57	Tsitsi	Masarira	M	Agric Extension Officer	Mudzi Ward 2	773373293	
58	Nixander	Kofi	M	Agric Extension Officer	Mudzi Ward 2	772375906	
59	Praise	Manhamo	F	DAEO	Mudzi District	772723406	
60	Thomas	Katsiga	M	Agric Extension Officer	Mudzi Ward 12	772376415	
61	Noleen	Makoni	F	Agric Extension Officer	Mudzi Ward 12	777216222	
62	Mkhululi	Ndlovu	M	Agric Extension Officer	Tsholotsho District	775100168	
63	Innocent	Hosiki	M	Assistant DCC	Local Government	773424980	
64	Fadzai	Mafira	F	Agric Extension Officer	Tsholotsho, Ward 9	778872541	
65	Sifiso	Mafana	M	Agric Extension Officer	Tsholotsho, Ward 12	775720029	
66	Rachel	Sibanda	F	DAEO	Tsholotsho District	772387813	
67	Phumuzani	Ncube	M	Field Officer	Ingwebu Breweries	713604724	
68	Faina	Mutikani	F	Field Officer	MASAP	788537421	
69	Francis	Moyo	M	MEAL Officer	WHH SCOPE4IVC Project	785449145	
70	Edmore	Mtewa	M	Head of Seed Services	Seed Services Institute	712508534	

Annex 2: Academic/Research Papers used in calculating Gross Margins

1. A study on **groundnut** production in Zimbabwe provided specific average costs (\$312/ha) and revenue (\$441/ha) under irrigation [\[1\]](#).
2. A study on **groundnut** production in Chegutu District, Zimbabwe, provided a gross margin of \$100.11 per hectare [\[2\]](#).
3. A report discussing **Bambara nut** market potential in Zimbabwe mentioned historical yields (around 650 kg/ha in the 1990s) and that it competes with cowpea and beans [\[3\]](#).
4. A YouTube video specifically breaks down the costs, yields, and profit potential for **Bambara nuts (Nyimo)** in Zimbabwe, estimating costs between \$850 to \$1,000 per hectare [\[4\]](#).
5. A YouTube video specifically breaks down the costs, yields, and profit potential for **Cowpeas (Nyemba)** in Zimbabwe, noting it can be a low-input, high-return crop [\[5\]](#).
6. A YouTube video specifically breaks down the costs, yields, and profit potential for **Sorghum** in Zimbabwe, suggesting costs around \$500 to \$550 per hectare and revenues that lead to profits [\[6\]](#).
7. A YouTube video specifically breaks down the costs, yields, and profit potential for **Pearl Millet (Mhunga)** in Zimbabwe, mentioning it is drought-resistant [\[7\]](#).
8. A YouTube video specifically breaks down the costs, yields, and profit potential for **Finger Millet (Rukweza)** in Zimbabwe, estimating total production costs between \$1,000 to \$1,400 per hectare [\[8\]](#).
9. A study on **Sorghum** profitability in Mali provided context on gross profit margins for improved varieties (24% to 34%) [\[9\]](#).
10. A study on **Cowpea** in the US provided general price ranges for dry cowpea (\$0.4 to \$0.6/kg) [\[10\]](#).
11. A study on **Cowpea** in Zimbabwe mentioned seed costs and the use of Compound D fertilizer in contract farming programs [\[11\]](#).

Annex 3: District Rankings by Average Total Production across four MASAP Value Chains

District	Cowpea	Groundnuts	Pearl Millet	Sorghum	Average ¹⁸
Gokwe South	10.3%	5.2%	1.5%	4.1%	5.3%
Chiredzi	4.4%	1.2%	3.8%	11.6%	5.2%
Buhera	1.2%	9.1%	3.7%	2.1%	4.0%
Mwenezi	1.9%	1.1%	8.9%	2.7%	3.6%
Gutu	1.0%	1.3%	9.1%	1.9%	3.3%
Chivi	1.0%	1.3%	8.1%	1.9%	3.1%
Chipinge	0.9%	8.6%	0.3%	1.6%	2.8%
Masvingo	1.0%	1.3%	7.1%	1.9%	2.8%
Mutoko	2.5%	4.9%	0.1%	1.2%	2.2%
Murehwa	2.2%	5.9%	0.0%	0.1%	2.0%
Mt Darwin	3.3%	2.1%	0.1%	2.2%	1.9%
Mazowe	4.6%	1.4%	0.1%	1.4%	1.8%
Bindura	4.6%	1.4%	0.1%	1.4%	1.8%
Shamva	4.6%	1.4%	0.1%	1.4%	1.8%
Muzarabani	4.6%	1.4%	0.1%	1.4%	1.8%
Mbire	4.6%	1.4%	0.1%	1.4%	1.8%
Guruve	4.6%	1.4%	0.1%	1.4%	1.8%
Bikita	1.0%	4.6%	0.5%	0.8%	1.7%
Makoni	2.2%	3.2%	0.0%	0.3%	1.4%
Mudzi	1.7%	1.2%	0.9%	1.8%	1.4%
Binga	0.9%	0.2%	1.8%	2.5%	1.4%
UMP	2.3%	2.2%	0.2%	0.6%	1.3%
Tsholotsho	0.7%	0.3%	1.8%	2.5%	1.3%
Zaka	1.2%	3.3%	0.1%	0.4%	1.2%
Chimanimani	1.2%	0.7%	0.7%	2.0%	1.2%
Makoni	1.2%	0.7%	0.7%	2.0%	1.2%
Nyanga	1.2%	0.7%	0.7%	2.0%	1.2%
Mutare	1.2%	0.7%	0.7%	2.0%	1.2%
Shurugwi	1.3%	2.2%	0.1%	0.9%	1.1%
Mvuma	1.3%	2.2%	0.1%	0.9%	1.1%
Gokwe North	1.3%	2.2%	0.1%	0.9%	1.1%
Kwekwe	1.3%	2.2%	0.1%	0.9%	1.1%
Mberengwa	1.3%	2.2%	0.1%	0.9%	1.1%
Zvishavane	1.3%	2.2%	0.1%	0.9%	1.1%
Gweru	1.3%	2.2%	0.1%	0.9%	1.1%
Matobo	0.7%	0.6%	0.4%	2.2%	1.0%
Gwanda	0.7%	0.6%	0.4%	2.2%	1.0%
Umzingwane	0.7%	0.6%	0.4%	2.2%	1.0%
Bulilima	0.7%	0.6%	0.4%	2.2%	1.0%
Beitbridge	0.7%	0.6%	0.4%	2.2%	1.0%
Mangwe	0.7%	0.6%	0.4%	2.2%	1.0%
Rushinga	2.3%	0.6%	0.1%	0.9%	1.0%
Mhondoro-Ngezi	2.3%	0.9%	0.0%	0.6%	1.0%
Chegutu	0.9%	1.1%	0.0%	1.8%	0.9%
Makonde	0.9%	1.1%	0.0%	1.8%	0.9%
Sanyati	1%	1%	0%	2%	0.9%
Hurungwe	0.9%	1.1%	0.0%	1.8%	0.9%
Bubi	1.0%	0.0%	0.2%	2.5%	0.9%

¹⁸ This is the average of total of the four MASAP value chain crops produced in each district in the 2024/25 agricultural season.

District	Cowpea	Groundnuts	Pearl Millet	Sorghum	Average ¹⁸
Nkayi	0.0%	0.1%	1.0%	2.5%	0.9%
Lupane	0.0%	0.1%	1.0%	2.5%	0.9%
Hwange	0.0%	0.1%	1.0%	2.5%	0.9%
Umguzu	0.5%	0.1%	0.1%	2.5%	0.8%
Zvimba	0.1%	0.9%	0.0%	0.7%	0.4%
Seke	0.1%	0.9%	0.0%	0.1%	0.3%
Marondera	0.1%	0.9%	0.0%	0.1%	0.3%
Goromonzi	0.1%	0.9%	0.0%	0.1%	0.3%
Hwedza	0.1%	0.9%	0.0%	0.1%	0.3%
Chikomba	0.1%	0.9%	0.0%	0.1%	0.3%

Source: ZIMSTATS

Annex 4: District Rankings by Average Total Production of Bambara nuts

District	Total Bambara Nut Production in MT in 2024/25	As percentage of National Total
Buhera	5,473	22.0%
Mwenezi	2,843	11.4%
Bikita	2,824	11.3%
Zaka	1,775	7.1%
Murehwa	1,248	5.0%
Chiredzi	1,194	4.8%
Makoni	597	2.4%
Gutu	414	1.7%
Chivi	414	1.7%
Masvingo	414	1.7%
Gokwe South	380	1.5%
Shurugwi	311	1.2%
Mvuma	311	1.2%
Gokwe North	311	1.2%
Kwekwe	311	1.2%
Mberengwa	311	1.2%
Zvishavane	311	1.2%
Gweru	311	1.2%
Seke	286	1.1%
Marondera	286	1.1%
Goromonzi	286	1.1%
Hwedza	286	1.1%
Chikomba	286	1.1%
Mhondoro-Ngezi	233	0.9%
Matobo	204	0.8%
Gwanda	204	0.8%
Umzingwane	204	0.8%
Bulilima	204	0.8%
Beitbridge	204	0.8%
Mangwe	204	0.8%
Chegutu	184	0.7%
Makonde	184	0.7%
Sanyati	184	0.7%
Hurungwe	184	0.7%
Chimanimani	77	0.3%
Nyanga	77	0.3%
Mutare	77	0.3%
Tsholotsho	74	0.3%

District	Total Bambara Nut Production in MT in 2024/25	As percentage of National Total
Nkayi	73	0.3%
Lupane	73	0.3%
Hwange	73	0.3%
Chipinge	63	0.3%
Zvimba	49	0.2%
UMP	47	0.2%
Mutoko	42	0.2%
Mudzi	32	0.1%
Rushinga	31	0.1%
Bubi	24	0.1%
Umguzu	22	0.1%
Binga	21	0.1%
Mt Darwin	20	0.1%
Mazowe	19	0.1%
Bindura	19	0.1%
Shamva	19	0.1%
Muzarabani	19	0.1%
Mbire	19	0.1%
Guruve	19	0.1%
National total	24,922	100.0%

Source: ZIMSTATS

Annex 5: Overall Ranking of Districts for selecting potential new districts

District	IP	CTDO	PROD	POP DENSITY	VCs	Access	IRR	TOTAL WEIGHTS
Southern Region Districts								
<u>Bubi</u>	<u>0.2</u>	<u>0.1</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.9</u>
<u>Tsholotsho</u>	<u>0.3</u>	<u>0.1</u>	<u>0.2</u>	<u>0</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.75</u>
<u>Umzingwane</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.6</u>
<u>Binga</u>	<u>0.3</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.6</u>
<u>Umguzu</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.55</u>
<u>Lupane</u>	<u>0</u>	<u>0.05</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.55</u>
<u>Bulilima</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.5</u>
<u>Nkayi</u>	<u>0</u>	<u>0.05</u>	<u>0.2</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.35</u>
<u>Beitbridge</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.3</u>
<u>Hwange</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.25</u>
<u>Insiza</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.2</u>
<u>Gwanda</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.2</u>
<u>Mangwe</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0.2</u>
<u>Matobo</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.15</u>
Northern Region Districts								
District	IP	CTDO	PROD	POP DENSITY	VCs	Access	IRR	TOTAL WEIGHTS
<u>Buhera</u>	<u>0.3</u>	<u>0.1</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.95</u>
<u>Masvingo</u>	<u>0.2</u>	<u>0.1</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.8</u>
<u>Chiredzi</u>	<u>0.2</u>	<u>0.1</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.8</u>
<u>Mutoko</u>	<u>0.2</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.65</u>
<u>Murewa</u>	<u>0.2</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.65</u>
<u>Mwenezi</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.6</u>
<u>Chipinge</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.55</u>

<u>District</u>	<u>IP</u>	<u>CTDO</u>	<u>PROD</u>	<u>POP DENSITY</u>	<u>VCs</u>	<u>Access</u>	<u>IRR</u>	<u>TOTAL WEIGHTS</u>
<u>Mudzi</u>	<u>0.3</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.55</u>
<u>Chivi</u>	<u>0.1</u>	<u>0.1</u>	<u>0.2</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.6</u>
<u>Goromonzi</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.55</u>
<u>Rushinga</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.5</u>
<u>Mhondoro Ngezi</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.5</u>
<u>Chegutu</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.5</u>
<u>Zaka</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.4</u>
<u>Bikita</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.4</u>
<u>Nyanga</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.4</u>
<u>Chimanimani</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.4</u>
<u>Seke</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.4</u>
<u>Muzarabani</u>	<u>0.2</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.5</u>
<u>UMP</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.35</u>
<u>Kwekwe</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.35</u>
<u>Shurugwi</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.35</u>
<u>Makoni</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.4</u>
<u>Gokwe North</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.3</u>
<u>Gokwe South</u>	<u>0</u>	<u>0.05</u>	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.45</u>
<u>Gutu</u>	<u>0.2</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.4</u>
<u>Mt. Darwin</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.3</u>
<u>Guruve</u>	<u>0.2</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.4</u>
<u>Hurungwe</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.3</u>
<u>Gweru</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.35</u>
<u>Bindura</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.05</u>	<u>0.1</u>	<u>0.3</u>
<u>Wedza</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.05</u>	<u>0.1</u>	<u>0.3</u>
<u>Shamva</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.35</u>
<u>Zvimba</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0.05</u>	<u>0.1</u>	<u>0.35</u>
<u>Mberengwa</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.3</u>
<u>Chirumanzu</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.3</u>
<u>Mutare</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.1</u>	<u>0</u>	<u>0.1</u>	<u>0.3</u>
<u>Sanyati</u>	<u>0.2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.3</u>
<u>Marondera</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.05</u>	<u>0.1</u>	<u>0.2</u>
<u>Chikomba</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0.2</u>
<u>Mazowe</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0.05</u>	<u>0.1</u>	<u>0.25</u>
<u>Mutasa</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0.2</u>
<u>Kariba</u>	<u>0.1</u>	<u>0.05</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.15</u>
<u>Mvuma</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0.1</u>
<u>Mbire</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.1</u>
<u>Chirundu/Makonde</u>	<u>0</u>	<u>0.05</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.05</u>
<u>Karoi</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.1</u>

Annex 6: Gross margin analysis

The table below summarises the main inputs, estimated costs for planting a hectare, expected revenue, and estimated gross margins for sorghum, pearl millet, groundnuts, cowpeas, and Bambara nuts. The values are approximate and can fluctuate based on local conditions and market prices.

Crop	Estimated Cost (US\$)	Estimated Yield tonnes/Ha)	Expected Price per tonne (US\$)	Estimated Gross Margin (US\$)
Sorghum	300 to 550	1.5 to 3	150-200	225-600
Pearl Millet	280 to 400	1.0 to 2.5	120-170	120-425
Ground nuts	350 to 500	0.8 to 1.5	600-800	480-1,200
Cowpeas	250 to 350	1.0 to 2.0	300-500	300-1,000
Bambara Nuts	300 to 450	0.6 to 1.2	400-600	240-720

Sources: Academic/Research Papers (see Annex 2)

The analysis of gross margins for the MASAP value chains reveals significant potential for smallholder farmers. Groundnuts present the highest gross margins, reaching up to \$1,200 per hectare, followed by sorghum and cowpeas with margins of \$600 and \$1,000, respectively. These findings illustrate the financial viability of these crops, highlighting their potential role in enhancing food security and income for smallholder farmers. Bambara nuts is not very far behind with an upper gross margin of US\$720. The analysis underscores the importance of promoting these high-margin crops especially in the marginal districts. There is potential for farmers in these districts to boost productivity and produce for the market at a good profit.

Annex 7: Data Collection Tools

Annex 7.1: Household survey instrument for current and potential MASAP project beneficiaries

Informed consent signature page

Thank you for participating in this survey. My name is _____. May I request the head of the household or any household member who assists in decision making for the household to participate in this survey. We are conducting this questionnaire as part of the Markets and Seeds Access Project (MASAP), funded by the Swiss Agency for Development and Cooperation (SDC). The aim of this project is to enhance food security and resilience among smallholder farmers in Zimbabwe, with a particular focus on improving the production and marketing of traditional grains and legumes, including the introduction of a new value chain for Bambara nuts.

Your household is among several other randomly selected households to provide information to the project. These questions in total will take approximately one hour to complete and your participation is entirely voluntary. Your insights are essential for understanding the potential of small grains and legume crops in your farming practices, as well as the opportunities and challenges you may face. By gathering your views on the viability and profitability of these crops, we aim to inform future interventions that will better support farmers like you in accessing markets, improving productivity, and increasing income.

Please be assured that your participation is entirely voluntary, and you may choose to skip any questions you do not wish to answer. Additionally, all responses will be kept confidential and anonymous; no identifying information will be linked to your answers. This anonymity is crucial for ensuring that you can share your thoughts openly and honestly. Before we begin, we kindly ask for your consent to participate in this survey and to use your responses for research purposes. Your contributions will play a significant role in shaping the future of agricultural support in your community. Do you have any questions about the survey or what I have said?

Thank you for your time and cooperation; your input will be greatly appreciated.

Household name	Representative Name	Consent to participate in survey (Check one box)		Main Respondent's relationship to the household head 1 =HH Head 2=Spouse 2=Child 3=other relative 4=non-relative	Signature of respondent
		Yes	No		

MODULE A: BASIC INFORMATION (<i>current and new farmers</i>)		
A1: Province	1: Mashonaland East 2: Matabeleland North	
A2: District:	1: Mudzi 2: Tsholotsho 3: New District # 1 4: New District # 2	
A3: Ward		
A4: Village		
A5: Beneficiary type:	1. Current beneficiary 2. Potentially new beneficiary	
A6: Enumerator name:		
A7: Interview date:		
A8: Interview start time:		
A9: Interview end time		
A10: Household ID:		
A11: Name of the respondent:		
1. Module B: HOUSEHOLD ROSTER (<i>current and new farmers</i>)		
B.1	Respondent:	
B.2	Household head:	
B.3	Is the household male headed, female headed or Child headed	1. Male headed 2. Female headed 3. Male child headed 4. Female child headed
B.4	Sex of respondent	1: Male 2: Female
B.5	Relationship of respondent to the HH head (If respondent not HH):	1: Head of household 2: Spouse 3: Child 4: Grandchild 5: Niece/Nephew 6: Father/Mother 7: Sister/Brother 8: Son/Daughter-In-Law 9: Brother/Sister-In-Law 10: Grandfather/Mother 11: Father/Mother-In-Law 12: Other Relative 13: Other Non-Relative 14: Other, Specify
B.6	Age: (Please state years of age)	
B.7	Marital status of household head:	1: Monogamous married or non-formal union 2: Polygamous married or non-formal union 3: Separated 4: Divorced 5: Widow or widower

1. Module B: HOUSEHOLD ROSTER (<i>current and new farmers</i>)			
		6: Never married	
B.8	What is the HH highest educational qualification completed?	1: None 2: Partial primary 3: Primary 4: Secondary 5: Partial tertiary 6: Tertiary 7: Certificate 8: Post graduate 9: Adult literacy scheme	
B.9	Did you or any member of the family receive any training in agriculture?	1: Yes 2: No	
B.10	If yes, what level were you trained?	1. Master farmer 2. Certificate 3. Diploma 4. Degree 5. Farming in general 6. Other (specify _____)	
B.11	How many people including yourself have lived in this household for at least 6 months?		
B.11.1	Of these people who live with you how many are aged	1: Male Below 18years 2: Female Below 18years 3: Male 18-35 years..... 4: Female 18-35 years..... 5: Male Over 36-65 years..... 6: Female Over 36-65 years..... 7: Male above 65 years..... 8: Female above 65.....	
B. 12	How many people in your household are living with a disability?		
MODULE C (<i>current and new farmers</i>)	HOUSEHOLD PRODUCTIVE ASSETS	Number owned now	Estimated market value
C.1	Ox-Plough		
C.2	Scotch cart		
C.3	Hoe		
C.4	Jab planter (for making planting basins)		
C.5	Ripper (for ripping the land)		
C.6	Thresher for primary processing		
C.7	Shelling machine for primary processing		
C.8	Knapsack chemical sprayer		
C.9	Food processing equipment such as for peanut butter		
C.10	Fodder making machine		
C.11	water pump		
C.12	grain mill		
C.13	tractor		
C.14	Cart (animal drawn)		
C.15	Pick-up truck /vehicle		
C.16	Borehole		
C.17	Bicycle		
C.18	Motorbike		
C.19	Car/truck		
C.20	Biogas		

MODULE C (current and new farmers)		HOUSEHOLD PRODUCTIVE ASSETS	Number owned now	Estimated market value
C.21		Mobile phone		
C.22		Solar system		
C.23		Radio / TV		
		LIVESTOCK ASSETS		
C.24		Cattle		
C.25		Draught cattle		
C.26		Dairy cows		
C.27		Goats		
C.28		Sheep		
C.30		Donkeys		
C.31		Pigs		
C.32		Rabbits		
C.33		All poultry		
C.34		Active bee hives		

MODULE D: FARMER ORGANIZATION AND CAPACITIES (current and new farmers)

D.1 Are you, or any member of your household, a member of a farmers group or association? **Yes/No**

D.2 If no, what could be the reason for not being a member of a farmers group or association? *(multiple responses possible)*

1. No existing farmers groups in our community?
2. Not interested in joining a farmers group?
3. High joining fees/cost?
4. Not aware of possible groups to join
5. Other (specify)

D.3 In the event that the conditions are suitable for you, will you be willing to become a member of a farmer's group/association?

1. Yes
2. No
3. Maybe

D.4 If the answer to D.1 is Yes, what is the type of farmer group/association in which you are a member? *(multiple responses possible)*

1. Producer association
2. Farmer field school
3. Cooperative
4. Internal Savings and Lending (ISAL)
5. Other (please, specify)

D.5 How many members make up your group/association > 35years? Adult Males _____ Adult Females _____

D.6 How many young people (<35 years) are in this group/association? Young Males _____ Young Females _____

D.7 Have members of your group/association received any form of training in agriculture?

1. Yes
2. No
3. Do not remember

D.8 If Yes, when was this training conducted?

1. Currently ongoing
2. Within the past 6 months
3. Within the past one year
4. Within the past two years
5. More than two years back
6. N/A

D.8 Who provided/facilitated the training?

1. Private sector company through extension officers
2. Extension officers on their own
3. Lead Farmers
4. Private company on its own
5. NGO/CSO
6. Other (please, specify)

D.9 What topics were covered in this training? *(multiple responses possible)*

1. Marketing
2. Farming as a business
3. Record keeping
4. Improved seeds / Seed production
5. Organic fertilizer/etc.
6. Conservation agriculture
7. Integrated soil fertility management (e.g. manure, compost and fertilizer use)
8. Planting of drought and heat tolerant crops and varieties
9. Planting a diversity of crops by the household
10. Early and timely planting and weeding
11. Integrated disease and pest management
12. Postharvest loss saving technology
13. Processing / Value addition
14. Gully reclamation and natural resource management
15. Integrated crop-livestock
16. Agroforestry
17. Crop rotations
18. Contract farming
19. Marketing
20. Crop and varietal selection
21. Use of herbicides
22. Integrated disease and pest management.
23. Use of agro-weather tools and information
24. Use of agro-marketing tools and information

D.10 To what extent has this training geared you up for the production and marketing of small grains and legumes?

1. To a very large extent
2. To a small extent
3. Not at all

MODULE E: CURRENT PRODUCTION (current and new farmers)

E.1.	E.2.	E.3.	E.4.	E.5.	E.6.	E.7.	E.8.	E.9.	E.10.	E.11.	E.12.	E.13.	E.14.
Crop Code (see codes below)	Crop Production Farming system 1=Dry land 2=Irrigation	Total Area planted crop 2022/23; 2023/24; 2024/25 seasons	Production 2022/23; 2023/24; 2024/25 seasons	Total Quantity sold in the last 9 months	Buyer of the produce	Income from sales (US\$)	Total cost of inputs used (US\$)	Estimated labour cost (including HH labour) (US\$)	Seed Used (kg) 2024/25 season	Type of seed 2024/25	Source of seed 2024/25	Expected production area 2025/26 season	Sources of your inputs 2024/25 season (multiple response)
		Area # Units	Qty # Units	Qty # Units	Buyer	Amount	Amount	Amount	Qty	Type	Source	Area # Units	Source
	Codes for E.3, E.13 1=acre 2=hectare	Codes for E.4, E.5, E.10 Units 1 = kg 2 = 5 Litre Tin 3 = 20 Litre Tin 4 = 50kg bag 5 = 90kg bag 6= bale 7= tons 8=cobs	Codes for E.6 BUYER 1=Aggregator 2=Processor 3=Middlemen/Traders 4=NGO 5=local markets 6= Bulawayo main markets 7=Harare main markets 8=Other	Codes for E.1 CROP CODES 1=Maize 2=Sorghum 3=Sorghum seed 4=Finger Millet 5=Finger millet seed 6=Pearl Millet 7=Pearl Millet seed 8=Cowpeas 9=Cowpeas seed 10=Groundnuts 11=Groundnuts seed 12=Bambara nuts 13=Bambara nuts seed	14=Sugar beans 15=Soya beans 16=Tobacco 17=Cotton 18=Paprika 19=Sunflowers 20=Wheat 21=Potatoes 22=Leaf vegetables 23=Tomatoes 24=Onions 25=Pepper 26=other horticultural crops 27=Other	Codes for input source E.12; E.14 1=Purchase 2=Community seed-bank 3=GVT 4= UN/NGO 5=Carryover purchased 6=Retained 7=Remittance 8=Pvt Contractors 9=MASAP 10=Other	Codes for type of seed E.11 1=certified seeds 2=retained seeds 3=open pollinated varieties (OPV) 4=Hybrid seeds 5=organic seeds						

E15: Are there some members of this community whom you are aware of who are producing Bambara nuts (at least in the last 2 years)?

- 1: Yes
- 2: No
- 3: I don't know

E: 15.1 If the answer is Yes in E15, what is the main reason for which they produce this crop?

- 1: Own consumption
- 2: Market
- 3: Both
- 4: Don't know

E16: If you are not producing Bambara nuts under E.1, would you be interested in producing the crop for selling onto the markets and making a profit?

- 1: Yes
- 2: No
- 3: Maybe

E16.1 If your answer to E16 is No, can you state **one main reason** why you are not interested in producing the crop for the market?

MODULE F: SOURCES AND VALUE OF HOUSEHOLD INCOME (<i>current and new farmers</i>)		Income per year in 2025 (US\$)
F.1	Sales from traditional grains	
F.2	Sales of traditional grain seed	
F.3	Sales from legumes	
F.4	Sales of legume seed	
F.5	Sales from other crops	
F.6	Sales of seed for other crops	
F.7	Sales from horticulture	
F.8	Sales from livestock sales	
F.9	Casual pay (agriculture, construction, domestic work)	
F.10	Salary (regular activity in small or large business)	
F.11	Artisanal mining (gold, chrome, etc)	
F.12	Other self-employment (petty trade, firewood sales, etc.)	
F.13	Remittances from relatives/friends	
F.14	Pension	
F.15	Cash Transfers (Government or donors)	
F.16	Other (specify)	

MODULE G: FARMER INTEREST AND CAPACITY (*current and new farmers*)

G.1 How would you rate the current interest of your household in growing sorghum for the market?

1. Very high
2. High
3. Medium
4. Low
5. Very low

G.1.1 If your answer above is medium to very low, what could be the three main reasons behind your response?

1. No quality seed available
2. Not suitable for this area
3. High seed cost
4. High labour requirements
5. High post-harvest losses
6. Lack of readily available market
7. Inhibitive government/local regulations
8. Lack of adequate funding
9. Lack of knowledge of available markets/access to markets
10. Lack of knowledge on how to grow the crop
11. No adequate land
12. Climatic conditions do not allow

13. Pest damage, e.g. birds
14. Diseases
15. Religious limitations
16. Other (specify)

G.2 How would you rate the current interest of your household in growing millet crop for the market?

1. Very high
2. High
3. Medium
4. Low
5. Very low

G.2.1 If your answer above is medium to very low, what could be the three main reasons behind your response?

1. No quality seed available
2. Not suitable for this area
3. High seed cost
4. High labour requirements
5. High post-harvest losses
6. Lack of readily available market
7. Inhibitive government/local regulations
8. Lack of adequate funding
9. Lack of knowledge of available markets/access to markets
10. Lack of knowledge on how to grow the crop
11. No adequate land
12. Climatic conditions do not allow
13. Pest damage, e.g. birds
14. Diseases
15. Religious limitations
16. Other (specify)

G.3 How would you rate the current interest of your household in growing groundnuts for the market?

1. Very high
2. High
3. Medium
4. Low
5. Very low

G.3.1 If your answer above is medium to very low, what could be the three main reasons behind your response?

1. No quality seed available
2. Not suitable for this area
3. High seed cost
4. High labour requirements
5. High post-harvest losses
6. Lack of readily available market
7. Inhibitive government/local regulations
8. Lack of adequate funding
9. Lack of knowledge of available markets/access to markets
10. Lack of knowledge on how to grow the crop
11. No adequate land
12. Climatic conditions do not allow
13. Pest damage, e.g. birds
14. Diseases
15. Religious limitations
16. Other (specify)

G.4 How would you rate the current interest of your household in growing cowpeas for the market?

1. Very high
2. High
3. Medium
4. Low
5. Very low

G.4.1 If your answer above is medium to very low, what could be the three main reasons behind your response?

1. No quality seed available
2. Not suitable for this area
3. High seed cost
4. High labour requirements
5. High post-harvest losses
6. Lack of readily available market
7. Inhibitive government/local regulations
8. Lack of adequate funding
9. Lack of knowledge of available markets/access to markets
10. Lack of knowledge on how to grow the crop
11. No adequate land
12. Climatic conditions do not allow
13. Pest damage, e.g. birds
14. Diseases
15. Religious limitations
16. Other (specify)

G.5 How would you rate the current interest of your household in growing Bambara nut for the market?

1. Very high
2. High
3. Medium
4. Low
5. Very low

G.5.1 If your answer above is medium to very low, what could be the three main reasons behind your response?

1. No quality seed available
2. Not suitable for this area
3. High seed cost
4. High labour requirements
5. High post-harvest losses
6. Lack of readily available market
7. Inhibitive government/local regulations
8. Lack of adequate funding
9. Lack of knowledge of available markets/access to markets
10. Lack of knowledge on how to grow the crop
11. No adequate land
12. Climatic conditions do not allow
13. Pest damage, e.g. birds
14. Diseases
15. Religious limitations
16. Other (specify)

MODULE H: PRODUCTION CONSTRAINTS (*current and new farmers*)

H.1 How to you rank the impact of the following constraints on your capacity to produce the following crops? (*Rank: 1 being biggest constraint 9 being the least pressing*)

	Constraint	Small grains (sorghum; millet)	Legumes (groundnuts; cowpeas)	Bambara nuts
1	Lack of access to inputs (e.g. fertilizers, chemicals)			
2	High labour demands			
3	No or limited know-how			
4	Inadequate rains			
5	Poor quality seeds			
6	Poor agronomical practices			
7	High post-harvest losses			
8	Lack of access to better rewarding markets			
9	Lack of access to adequate land			
10	Poor soils			
11	Inhibitive regulations/policies			
12	Pests / Diseases			

H.2 To what extent are improved seed varieties (certified OPV seed; certified hybrid seed; organically produced seed) accessible to your household?

Seed	To a very large extent	Large extent	Small extent	Not accessible	Completely inaccessible
1. sorghum					
2. millet					
3. groundnuts					
4. cowpeas					
5. Bambara nut					

H.3 If your answer in H.2 is between “small extent” and “completely inaccessible”, what are the three main reasons why it is difficult to access improved seed varieties?

- No or limited local production
- Absence of local seed distributors
- Lack of finance to purchase the seed
- High seed prices
- Lack of knowledge/information on the seed varieties available
- Lack of knowledge on importance of improved seed varieties
- High transport cost to buy the improved seed varieties
- Other (specify)

MODULE I: POST-HARVEST PRACTICES (current and new farmers)

I.1	Did you store any of the [CROP] harvested during [2024/25]?	1: Yes – 0: No
I.3	What is your [main storage facility] for this [CROP]? 1: Sorghum 2: Millet 3: Groundnuts 4: Cowpeas 7: Bambara nuts 8: Not applicable	SELECT 1: [main storage facility] 1: Unprotected pile 2: Metallic Silo 3: Heaped in house 4: Ordinary bags in house 5: Hermetic sealing bags 6: Traditional Granary 7: Improved Granary 8: Other, specify
For [main storage facility] selected in I.3		
I.4	Is the [main storage facility] functional?	1: Very functional 2: Somewhat functional 3: Somewhat unfunctional 4: Very unfunctional
I.5	Who owns the [main storage facility]?	1: Self 2: Community/village 3: My producer organization 4: Provided by project X 5: Other, specify
I.6	What is the distance between your home and the [main storage facility]?	In minutes/hours (TIME)
	What grain/seed protectants do you use during storage?	1: None at all 2: Commercial types e.g. Actellic, Shumba, etc. 3: Traditional materials or methods (name them)

MODULE J: CLIMATIC AND AGRO-ECOLOGICAL CONDITIONS (current and new farmers)

J.1 How do you characterise the annual rains that have been falling into this community over the past 3 years compared to say 10 to 20 years ago in terms of the quantity?

- Very high
- High
- Low
- Very low
- Extremely low

J.2 How do you characterise the annual rains that have been falling into this community over the past 3 years compared to say 10 to 20 years ago in terms of its consistency?

1. Very consistent (comes on time and patterns do not change across the season)
2. Erratic (comes late and is unpredictable across the season)
3. Very erratic (comes late and is very unpredictable across the season)

J.3 To what extent has these rainfall patterns impacted on your production of small grains (sorghum and millet)?

1. Made it more suitable and profitable to produce small grains
2. Made it more unsuitable but profitable to produce small grains
3. Made in unsuitable and unprofitable to produce small grains

J.4 To what extent has these rainfall patterns impacted on your production of legumes (groundnuts and cowpeas)?

1. Made it more suitable and profitable to produce small grains
2. Made it more unsuitable but profitable to produce small grains
3. Made in unsuitable and unprofitable to produce small grains

J.5 To what extent has these rainfall patterns impacted on your production of other legumes such as Bambara nuts?

1. Made it more suitable and profitable to produce small grains
2. Made it more unsuitable but profitable to produce small grains
3. Made in unsuitable and unprofitable to produce small grains

J.6 How do you characterise the type of soil available to your household for the production of small grains such as sorghum and millet?

1. It is suitable and profitable to produce small grains
2. It is unsuitable but profitable to produce small grains
3. It is unsuitable and unprofitable to produce small grains

J.7 How do you characterise the type of soil available to your household for the production of legumes such as groundnuts and cowpeas?

1. It is suitable and profitable to produce small grains
2. It is unsuitable but profitable to produce small grains
3. It is unsuitable and unprofitable to produce small grains

J.8 How do you characterise the type of soil available to your household for the production of other legumes such as Bambara nuts?

1. It is suitable and profitable to produce small grains
2. It is unsuitable but profitable to produce small grains
3. It is unsuitable and unprofitable to produce small grains

	J.9 Have you ever heard about the following production practices/ inputs /technologies?	Yes/No	J.10 Did you use/implement any of these production practices/ inputs /technologies over the past 12 months? Yes/No
1	Improved seeds / Organic fertilizer/etc.		
2	Conservation agriculture with herbicides		
3	Conservation agriculture without herbicides		
4	Organic farming		
5	Agroecology		
6	Integrated soil fertility management (e.g. manure, compost and fertilizer use)		
7	Planting of drought and heat tolerant crops and varieties		
8	Planting a diversity of crops by the household		
9	Early and timely planting and weeding		
10	Integrated disease and pest management		
11	Postharvest loss saving technology		
12	Gulley reclamation and natural resource management		
13	Crop-livestock integration		
14	Agroforestry		
15	Crop rotations		
16	Crop and varietal selection		
17	Use of herbicides		
18	Use of agro-weather tools and information		
19	Use of agro-marketing tools and information		

MODULE K: MARKET ACCESS AND INFRASTRUCTURE (current and new farmers)

K.1 Do you produce and sell any of the following crops (other than for seed), and if Yes, in what form?

Crop		State of the crop going to the market
1 Sorghum	1: Yes 2: No	1. Raw 2. Semi-processed (e.g. packaged; grounded) 3. Fully processed (e.g. transformed into flour cookies/snacks)
2 Millet	1: Yes 2: No	1. Raw 2. Semi-processed (e.g. packaged; grounded) 3. Fully processed (e.g. transformed into flour cookies/snacks)
3 Groundnuts	1: Yes 2: No	1. Raw 2. Semi-processed (e.g. packaged; grounded) 3. Fully processed (e.g. transformed into peanut butter or snacks)
4 Cowpeas	1: Yes 2: No	1. Raw 2. Semi-processed (e.g. packaged; grounded) 3. Fully processed (e.g. transformed into cookies/snacks)
5 Bambara nuts	1: Yes 2: No	1. Raw 2. Semi-processed (e.g. packaged; grounded) 3. Fully processed (e.g. transformed into cookies/snacks)
K.2	Do you process part of your production at a processing facility?	1: Yes – 0: No
K.3	What type of processing facility is it?	Select 1 2. Home 3. Producer group 4. Cooperative 5. Agro-industry
K.4	Is the [processing facility] functional?	1: Very functional – 2: Somewhat functional – 3: Somewhat unfunctional – 4: Very unfunctional
K.5	What is the distance to the [processing facility]?	In minutes/hours (TIME)
K.6	To whom do you sell to most of the production (choose only one)?	1: Aggregator 2: Processor 5: Sales to private individuals 6: Traders/middlemen 7: Cooperatives 8: (Agro) Industry 9: Schools 10: Hospitals 11: Other producers 12: Other
K.7	Do you sell part of your production at a market facility?	1: Yes – 0: No
K.8	What type of market is this market facility?	1: Daily - 2: Weekly - 3: Bi-weekly - 4: Monthly – 5: Other, specify
K.9	Which market facility do you supply?	1: Farm gate 2: District market 3: Mbare farmers market 4: Lusaka farmers market 5: Luveve farmers market 6: Chikwanha farmers market 7: Out of the country (Mozambique) 8: Out of the country (Botswana) 9: Out of the country (South Africa) 10: Out of the country (UK, USA, Australia) 11: Other (specify)
K.10	Is the market facility functional?	1: Very functional 2: Somewhat functional 3: Somewhat unfunctional 4: Very unfunctional
K.11	What is the distance to the market facility you use?	In minutes/hours (TIME)

K12: The MASAP project has facilitated arrangements through which beneficiary farmers work through private sector players (or Intervention Partners – IPs) to provide production and marketing support to the farmers. (current farmers only)

K12.1 Did you participate in any of such an arrangement?

1. Yes
2. No
3. Don't know

K12.2 If your response to K12.1 is Yes, which crops did you participate in under this arrangement? *(multiple answers are possible)*

1. Sorghum commodity production
2. Sorghum seed production
3. Millet commodity production
4. Millet seed production
5. Groundnuts commodity production
6. Groundnuts seed production
7. Cowpeas commodity production
8. Cowpeas seed production
9. Threshing or shelling services

Inputs Supplies

K12.3 How satisfied are you with the quality of inputs (seeds, fertilizers, etc.) provided through the IPs?

1. Very satisfied
2. Satisfied
3. Neutral
4. Dissatisfied
5. Very dissatisfied

K12.4 Were the quantities of inputs supplied sufficient for your production needs?

1. Yes
2. No

K12.4.1 If No, please specify what was lacking _____

K12.4.2 If you are into threshing or shelling services, how satisfied are you with the equipment provided?

1. Very satisfied
2. Satisfied
3. Neutral
4. Dissatisfied
5. Very dissatisfied

Production of Crops

K12.5 How has participating in this arrangement affected your overall crop yield?

1. Increased significantly
2. Increased moderately
3. No change
4. Decreased

K12.6 What challenges did you face during crop production under this arrangement?

1. Poor crop growth (describe)
2. Pest/disease management
3. Access to water
4. Technical support
5. Other (please specify)
6. Marketing

K12.7 How effective has the marketing support from the IPs been in selling your crops?

1. Very effective
2. Effective
3. Neutral
4. Ineffective
5. Very ineffective

K12.8 What marketing channels were facilitated by the IPs?

1. Direct sales to consumers
2. Local markets
3. Cooperatives
4. Export markets
5. Other (please specify)

Value Addition

K12.9 Have you received any support for value addition (processing) of your crops?

1. Yes
2. No

K12.9.1 If Yes, please specify the support received.

K12.10 How beneficial has the value addition support been for your income?

1. Very beneficial
2. Somewhat beneficial
3. Not beneficial
4. Unsure

General Feedback

K12.11 What improvements would you suggest for future arrangements with IPs?

1. More training and support
2. Better quality inputs
3. Improved marketing strategies
4. Other (please specify)

K12.12 Are there any additional resources or services you feel would enhance your production and marketing efforts?

1. Yes (please specify) _____
2. No

MODULE L: ACCESS TO FINANCIAL SERVICES <i>(current and new farmers)</i>		
L.2	Are any of these financial product or service available in the community for the production and marketing of small grains and legumes?	Select all that apply: 1. Access to loans / Credit 2. Revolving funds 3. Savings 4. Insurance 5. Remittances 6. ISALs
L.3	Did you or any member of the household use any of these financial products or services during the 2024/25? 1. Access to loans / Credit 2. Revolving funds 3. Savings 4. Insurance 5. Remittances	1. Yes 2. No
L.4	If yes on L.3, What is the source of [FINANCIAL SERVICE]?	SELECT ONE 1: Bank/financial institution 2: Microfinance institution 3: Informal 4: Friends/relatives 5: Self-help group, group based micro-finance or lending including VSLAs /SACCOs/merry-go-rounds 6: Revolving funds 7: Other
L.5	How was the [FINANCIAL SERVICE] used? <i>(multiple responses are possible)</i>	SELECT ALL THAT APPLY: 1: Purchase inputs for small grains and/or legume production 2: Purchase inputs for other crops and/or livestock production 3: Invest in business 4: Productive assets 5: Daily consumption

		6: Education 7: Health expenses 8: House and property 9: Repayment 10: Other, specify
E.10	In general, how satisfied are you with the services provided under [FINANCIAL SERVICE]?	1: Very satisfied 2: Somewhat satisfied 3: Somewhat Dissatisfied 4: Very dissatisfied
E.11	Do you still need more use of [FINANCIAL SERVICE] for production and marketing of small grains and/or legumes?	1: Yes – 0: No

MODULE M: ENABLING ENVIRONMENT *(current and new farmers)*

M1: What types of infrastructure do you believe are necessary to support the production of traditional grains and legumes?

1. Feeder roads
2. Aggregation facilities
3. Storage facilities
4. Processing facilities
5. Irrigation systems
6. Other (please specify)

M2: Are there any specific policies or programs that have improved your access to inputs? If yes, please describe.

M3: Are you aware of any government policies that support the production and marketing of traditional grains and legumes?

1. Yes (please specify)
2. No

M4: How effective do you think these policies are in supporting smallholder farmers?

1. Very effective
2. Effective
3. Neutral
4. Ineffective
5. Very ineffective

M5: What types of communication services (e.g., mobile networks, internet access) do you have access to that support your farming activities?

1. Mobile phone coverage
2. Internet access
3. Agricultural extension services
4. Other (please specify)

M6: How would you rate the availability of agricultural extension services in your area?

1. Excellent
2. Good
3. Fair
4. Poor

6. General Feedback

M7: In your opinion, what are the top three priorities for improving the enabling environment for smallholder farmers in your community?

M.8 How would you rate the state of the following facilities that should enable you to produce and market small grains and legumes?

	Issue	Rating
1	Rules and regulations (e.g. accessing council market spaces)	1. Very Facilitative 2. Somewhat facilitative 3. Not facilitative 4. Inhibitive 5. Very inhibitive
2	Feeder roads	1. Very Facilitative 2. Somewhat facilitative 3. Not facilitative 4. Inhibitive 5. Very inhibitive

Issue		Rating
3	Storage facilities	1. Available and accessible 2. Available and not accessible 3. Not available
4	Communication infrastructure (e.g. mobile networks)	1. Always available and accessible 2. Available and sometimes accessible 3. Available and not accessible 4. Not available
5	Access to inputs for small grains and legumes	1. Always available and accessible 2. Available and sometimes accessible 3. Available and not accessible 4. Not available
6	Access to processing facilities for small grains and legumes	1. Always available and accessible 2. Available and sometimes accessible 3. Available and not accessible 4. Not available

MODULE N: CURRENT AND PAST PROJECTS (*current and new farmers*)

N.1 Are there any recent past and/or current projects in this community that are/were promoting/supporting smallholder farmers to grow small grains?

1. Yes
2. No

N.1.1 If Yes under N.1, who were these donors, which year did they last operate and what small grains crops were promoted?

Project	Name of sponsor	Type of small grains*	Year

*Key: 1=sorghum; 2=millet

N.1.2 What were the main challenges faced by smallholder farmers in these projects?

1. Financial constraints
2. Lack of access to markets
3. Limited knowledge or training
4. Environmental factors
5. Other (please specify)

N.1.3 How effective do you think the projects were in improving access to markets and incomes for smallholder farmers?

1. Very effective
2. Somewhat effective
3. Not effective
4. Unsure

N.1.4 Are there any additional support services or resources you believe would benefit smallholder farmers in your community?

1. Access to financial services (loans, grants)
2. Training and education programs
3. Improved market access
4. Agricultural inputs (seeds, fertilizers)
5. Other (please specify)

N.2 Are there any recent past and/or current projects in this community that are/were promoting/supporting smallholder farmers to grow legumes?

1. Yes
2. No

N.2.1 If Yes under N.2, who were these donors, which year did they last operate and what legume crops were promoted?

Project	Name of sponsor	Type of small grains**	Year

****Key:** 1=groundnuts; 2=cowpeas; 3=Bambara nuts; 4=soyabeans; 5=sugar beans; 6=peas; 7=other

N.2.1 What were the main challenges faced by smallholder farmers in these projects?

1. Financial constraints
2. Lack of access to markets
3. Limited knowledge or training
4. Environmental factors
5. Other (please specify)

N.2.2 How effective do you think the projects were in improving access to markets and incomes for smallholder farmers?

1. Very effective
2. Somewhat effective
3. Not effective
4. Unsure

N.2.3 Are there any additional support services or resources you believe would benefit smallholder farmers in your community?

1. Access to financial services (loans, grants)
2. Training and education programs
3. Improved market access
4. Agricultural inputs (seeds, fertilizers)
5. Other (please specify)

END OF QUESTIONS

Annex 7.2 Market Actors survey instrument for current and potential IPs

MARKETS AND SEEDS ACCESS PROJECT

Informed consent signature page

Thank you for participating in this survey. My name is _____. May I request the person in the Company who assists in decision making for the Company to participate in this survey. We are conducting this questionnaire as part of the Markets and Seeds Access Project (MASAP), funded by the Swiss Agency for Development and Cooperation (SDC). The aim of this project is to enhance food security and resilience among smallholder farmers in Zimbabwe, with a particular focus on improving the production and marketing of traditional grains and legumes, including the introduction of a new value chain for Bambara nuts.

Your Company is among several other randomly selected households to provide information to the project. These questions in total will take approximately 15 minutes to complete and your participation is entirely voluntary. Your insights are essential for understanding the potential of small grains and legumes in your Company operations, as well as the opportunities and challenges you may face. By gathering your views on the viability and profitability of these crops (both seeds and commodities), we aim to inform future interventions that will better support organisations/companies like yours and smallholder farmers that you work with in accessing markets, improving productivity, and increasing incomes.

Please be assured that your participation is entirely voluntary, and you may choose to skip any questions you do not wish to answer. Additionally, all responses will be kept confidential and anonymous; no identifying information will be linked to your answers. This anonymity is crucial for ensuring that you can share your thoughts openly and honestly.

Before we begin, we kindly ask for your consent to participate in this survey and to use your responses for research purposes. Do you have any questions about the survey or what I have said?

Section 1: Respondent Information

1.1 Name of the Organization/Individual: _____

1.2 Name of respondent _____

1.3 Position in organisation: _____

1.4 How best would you classify your business activities?

1. Input supplier
2. Aggregator
3. Processor
4. Distributor
5. Retailer
6. Consumer
7. Other (specify)

1.5 Location: _____

1.6 Contact Information (optional): _____

1.7 Have you participated in Markets and Seeds Access Project (MASAP) activities before?

1. Yes
2. No

1.8 If yes, which MASAP district are you currently participating in?

- 1: Mudzi
- 2: Tsholotho
- 3: Both districts

1.9 If yes, what roles have you played and when? Do you want to continue with the partnership with MASAP?

1.10 In what ways have you supported the farmers in accessing finance to enhance the production and marketing of the MASAP value chain crops?

- A: Provision of inputs on credit to the farmers
 B: Cash loans to the farmers
 C: Technical support to the farmers
 D: Provision of market access to the farmers
 E: Other (specify) _____

1.11 State three main challenges that you have faced in your engagement with the farmers in the MASAP district(s)?

a: _____
 b: _____
 c: _____

1.12 What additional support do you think the MASAP project should provide to address these challenges?

1.13 If the MASAP project is to expand into new districts in supporting farmers and IPs to produce and market small grains and legume crops, which 3 districts would you recommend? (rank in order of priority 1 being the most prioritised)

#	District	Main reason for choosing the district
1		
2		
3		

1.14. If no on 1.7 above, will you be interested in working in partnership with MASAP to facilitate the provision of agronomic and market related support to the farmers?

1.15 What specific services would you be able to facilitate for the MASAP farmers?

1.16 If the MASAP project is to expand into new districts in supporting farmers and IPs to produce and market small grains and legume crops, which 3 districts would you recommend? (rank in order of priority 1 being the most prioritised)

#	District	Main reason for choosing the district
1		
2		
3		

Section 2: Production Practices

2.1 What volume of inputs do you currently supply onto to the market annually? (Select all that apply)

2.1.1 Input Suppliers

Crop	Seed to MASAP district (US\$): 1: Mudzi 2: Tsholotsho	Quantity of seed supplied to MASAP District (tons)	Seed to other markets US\$	Quantity of seed supplied to other Districts (tons)
Sorghum	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____
Millet	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____
Groundnuts	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____
Cowpeas	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____	1: Certified OPV seed 2: Certified hybrid seed 3: Other (Specify) _____
Bambara nuts	1: Certified OPV seed	1: Certified OPV seed	1: Certified OPV seed	1: Certified OPV seed

2: Certified hybrid seed	2: Certified hybrid seed	2: Certified hybrid seed	2: Certified hybrid seed
3: Other (Specify)	3: Other (Specify)	3: Other (Specify)	3: Other (Specify)

2.1.2 Aggregators or Processors

Crop	Volume (tons) of crop acquired from MASAP district 1: Mudzi 2: Tsholotsho	Volume of crop acquired from non-MASAP districts (tons)	Value addition activities undertaken	Products/services supplied to the market
Sorghum			1. Quality control (grading & testing) 2. Processing (shelling; roasting, etc) 3. Packaging 4. Storage and logistics) 5. Market identification 6. Capacity building 7. Finance and/or insurance 8. Market research 9. Sustainability practices (promoting organic farming; waste management, etc). 10. Product development 11. Other (specify)	Product 1: _____ Annual value: (US\$) _____ Product 2: _____ Annual value: (US\$) _____ Service 1: _____ Annual value: (US\$) _____ Etc.
Millet			REPEAT THE ABOVE FOR EACH CROP	REPEAT THE ABOVE FOR EACH CROP
Groundnuts				
Cowpeas				
Bambara nuts				

2.1.3 Distributor/Wholesaler

Crop	Volume (tons) of crop acquired from MASAP district 1: Mudzi 2: Tsholotsho	Volume of crop acquired from non-MASAP districts (tons)	Value addition activities undertaken	Products/services supplied to the market
Sorghum			1. Product distribution (logistics and inventory management) 2. Market access 3. Sales and marketing (promotional activities; sales team management; etc) 4. Customer support (information provision; customer feedback) 5. Financial transactions (credit management; invoicing) 6. Regulatory compliance 7. Training and support 8. Other (specify)	Product 1: _____ Annual value: (US\$) _____ Product 2: _____ Annual value: (US\$) _____ Service 1: _____ Annual value: (US\$) _____ Etc.
Millet			REPEAT THE ABOVE FOR EACH CROP	REPEAT THE ABOVE FOR EACH CROP
Groundnuts				
Cowpeas				
Bambara nuts				

2.1.3 Retailer

Crop	Volume (tons) of crop acquired from MASAP district 1: Mudzi 2: Tsholotsho	Volume of crop acquired from non-MASAP districts (tons)	Value addition activities undertaken	Products/services supplied to the market
Sorghum			1. Direct sales to customers 2. Market research 3. Sales and marketing (promotional activities; sales team management; etc) 4. Customer support (information provision; customer feedback) 5. Financial transactions (credit management; invoicing) 6. Regulatory compliance 7. Training and support 8. Other (specify)	Product 1: _____ Annual value: (US\$) _____ Product 2: _____ Annual value: (US\$) _____ Service 1: _____ Annual value: (US\$) _____ Etc.
Millet			REPEAT THE ABOVE FOR EACH CROP	REPEAT THE ABOVE FOR EACH CROP
Groundnuts				
Cowpeas				
Bambara nuts				

2.5 State up to three main challenges that you face in the value addition process for products/services related to each crop?

1. Bambara nuts: _____
2. Sorghum: _____
3. Millet: _____
4. Groundnuts: _____
5. Cowpeas: _____

Section 3: Pricing Strategies

3.2 How do you determine the pricing for your products?

1. Cost-based pricing
2. Market-based pricing
3. Value-based pricing
4. Other (please specify) _____

3.3 What factors influence the pricing of your products?

Section 4: Market Access

4.1 How do you typically sell your products?

1. Direct to consumers
2. Local markets
3. Retailers
4. Other (please specify) _____

4.2 What is the estimated total market share for your products?

1. Bambara nuts: _____
2. Sorghum: _____
3. Millet: _____
4. Groundnuts: _____
5. Cowpeas: _____

4.3 What barriers do you encounter when accessing markets for each crop?

6. Bambara nuts: _____

7. Sorghum: _____
 8. Millet: _____
 9. Groundnuts: _____
 10. Cowpeas: _____

4.3 What support do you need to improve your market access for these crops/products?

Section 5: Value Chain Dynamics

5.1 How would you rate the competitiveness of the market for products from each of the crops?

	Rating	Sorghum	Millet	Groundnut	Cowpeas	Bambara nut
1	Very competitive					
2	Competitive					
3	Neutral					
4	Uncompetitive					
5	Very uncompetitive					

5.2 What role do you believe government policies play in the markets for these crops and associated products and services?

5.3 Have you participated in any projects related to any of these crops? If yes, please describe:

Section 6: Future Outlook

6.1 What opportunities do you see for the markets of these crops in the coming years?

6.2 What recommendations would you make to improve the value chains for Bambara nuts, sorghum, millet, groundnuts, and cowpeas?

END OF QUESTIONS

Annex 7.3 Checklist for MASAP Project Team

Province	
District	
Ward	
Informant Name	
Organisation/Ministry/Department	
Position	
Contact Details	
Consultant Name	

INTERVIEWER: Introduce the meeting and briefly explain the objective of the meeting.

Thank you for agreeing to participate in this interview. We are conducting a Market Systems Analysis (MSA) as part of the Markets and Seeds Access Project (MASAP), funded by the Swiss Agency for Development and Cooperation (SDC). The goal of this project is to improve food security and resilience among smallholder households in Zimbabwe, particularly focusing on women, by enhancing the adoption and utilization of traditional grains and legumes.

As we enter the second phase of MASAP, we aim to identify strategic opportunities for scaling up the production and marketing of drought-tolerant traditional grains (sorghum and millet) and legumes (groundnuts, cowpeas, and Bambara nuts). Your insights are crucial for assessing the viability of neglected legume value chains and selecting appropriate districts for project expansion.

Please be assured that your responses will remain anonymous, and individual data will not be linked to you personally. This confidentiality is vital for encouraging open and honest feedback.

Before we begin, we seek your consent to proceed with this interview and to use your responses for research purposes. We appreciate your willingness to share your expertise, as your contributions will directly inform our recommendations for improving MASAP's interventions in new districts. Thank you for your time and cooperation; your insights are invaluable to this important work.

Section A1:

1. What are your main responsibilities within MASAP?
2. How long have you been involved in the project? (**probe:** *Less than 1 year / 1-5 years / More than 5 years*)
3. Who are the main players in the small grains and legumes value chains? What have been their roles?
4. Who are the potential players and their roles in the Bambara nuts value chain?
5. What are the key strengths of current interventions? What key lessons can be drawn from the current interventions to inform the scaling up of the project into new districts?
6. What are the key constraints (underlying causes of market failure) that need to be tackled to create a competitive and sustainable traditional grains and legumes market? (**probe for each crop:** *sorghum; millet; ground nuts; cow peas and Bambara nuts*)
7. How do you assess the potential for scaling up in new districts? (**probe:** *(a) extent to which existing IPs and government extension staff have been working closely with the farmers. (b) Coordination challenges faced.*)
8. What criteria do you consider for selecting new districts? (**probe:** *(a) presence of potential IPs; (b) willingness of existing IPs; (c) support from government extension staff; (d) presence of farmer organised groups; (e) presence of farmers in the neglected legume value chains*)
9. What partnerships have been most beneficial for MASAP? How can these be strengthened going into the new districts and new value chain?

10. What challenges do you face in the field? How can these be managed or minimised going forward?
11. How do you gather feedback from farmers? What have been the challenges so far in communicating with the farmers?

Section A2:

12. What resources do you need to implement any new initiatives in the Bambara nut value chain? (*probe: infrastructure; human expertise; logistical support; networks*)
13. What role do women play in the current interventions? To what extent would you say these roles would differ or remain the same in new value chains e.g. Bambara nuts?
14. What are the main constraints faced by smallholder farmers? To what extent have these been addressed in the currently targeted value chains?

Section A3: Capacity building and regulations

15. What training do you provide to project staff? What training has been provided to IPs? What additional support has been provided to IPs and government extension staff?
16. What technologies do you use for data collection? How frequent has such data been collected? How has the data been used to improve project performance?
17. What key rules, regulations, policies and infrastructure need to be put in place to support production and marketing of traditional grains and legumes by SHF – feeder roads, storage facilities, communications, access to inputs, processing facilities, etc. **To what extent would these issues relate to the new Bambara nut value chain?**
18. How do you engage with national and local government bodies? What have been some of the policy and regulatory issues impacting the targeted value chains that have been raised with the authorities by project stakeholders? To what extent have these been addressed?
19. What strategies do you use to ensure sustainability? (*probe: (a) capacity building; (b) farmer organisation; (c) infrastructure support; (d) use of technology*)

Section A4: Current production and marketing

20. What other crops apart from traditional grains and legumes are the SHF in the targeted districts producing?
21. What other income earning opportunities are being pursued by the SHF in the targeted districts?
22. How does MASAP currently track production and productivity by the farmers in the currently targeted value chains?
23. What have been the productivity and production trends for the existing farmers at baseline up to today?
24. What varieties of the small grains and legumes have been available to the farmers? Which of these varieties have been the most successful and what have been the reasons for that success?
25. What methods have been used to promote these varieties?
26. What are some of the post-harvest challenges that the SHF have been facing? To what extent has the project addressed these challenges?
27. How do you assess access by smallholder farmers to seed and other inputs? How do you assess access by smallholder farmers to end markets?
28. What markets are the farmers currently selling their produce? (*probe: farm-gate sales; aggregators; processors; local markets; Harare/Bulawayo markets; cross-border markets*). What challenges have the farmers been facing in accessing these markets? What lessons can be drawn to benefit the implementation of the Bambara nut value chain interventions?
29. To what extent have the farmers been involved in value addition of their produce? (*probe for: small grains; legumes*). What challenges have been faced in value addition endeavours and what has been the response of the project to address these challenges?
30. What strategies can be employed to improve marketing aspects in the new value chain?

Section A5:

31. What are your thoughts on climate change impacts? To what extent have the farmers been adopting climate smart agricultural practices in the current MASAP districts? What have been the common practices?
32. To what extent have these practices been sustainable? To what extent do you think these practices can be sustainably applied to the Bambara nut value chain?
33. What success stories can you share from existing interventions?

Section A6: Access to finance

34. To what extent have financial institutions participated in the existing value chains?
35. What form has this funding taken?
36. What have been the challenges faced in securing finance for farmers in the targeted value chains?
37. What lessons can be drawn to help improve access to funding for farmers in the new Bambara nut value chain?

Section A7: Coordination and engagement

38. What coordination mechanisms are used by the MASAP project to implement its activities with the farmers?
39. What role does community engagement play in your work?
40. What models or approaches have been used in community engagement in the existing value chains?
41. Which of these have been the most effective?
42. To what extent do you think these approaches will be effective in the Bambara nut value chain?
43. How do you ensure inclusivity in your interventions?

Section A8: MASAP support

44. Are there any past or present similar value chain interventions in the targeted districts that you are aware of?
45. When was each of these implemented and by whom? (**probe:** (a) the value chains targeted; (b) wards covered; (c) number of beneficiaries; (d) approaches/models used)
46. What major successes were achieved and to what extent have these interventions been complementary/supportive to the MASAP project?

Section A9: MASAP support

47. What support do you think MASAP needs for future success? What specific support is needed in the new Bambara nut value chain?

Annex 7.4: Checklist for Agricultural Ministry Officials

Province	
District	
Ward	
Informant Name	
Organisation/Ministry/Department	
Position	
Contact Details	
Consultant Name	

INTERVIEWER: Introduce the meeting and briefly explain the objective of the meeting.

Thank you for agreeing to participate in this interview. We are conducting a Market Systems Analysis (MSA) as part of the Markets and Seeds Access Project (MASAP), funded by the Swiss Agency for Development and Cooperation (SDC). The goal of this project is to improve food security and resilience among smallholder households in Zimbabwe, particularly focusing on women, by enhancing the adoption and utilization of traditional grains and legumes.

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Please be assured that your responses will remain anonymous, and individual data will not be linked to you personally. This confidentiality is vital for encouraging open and honest feedback.

Before we begin, we seek your consent to proceed with this interview and to use your responses for research purposes. We appreciate your willingness to share your expertise, as your contributions will directly inform our recommendations for improving MASAP's interventions in new districts. Thank you for your time and cooperation; your insights are invaluable to this important work.

1. What is your role within the Ministry regarding legumes and small grains?
2. How long have you been in this position? (**probe:** Less than 1 year / 1-5 years / More than 5 years)
3. Which districts are currently known for successful legume farming, particularly of Bambara nuts? What are the main agricultural practices in these districts?
4. Can you provide us with levels of production and average yields for the various crops produced in this district and other surrounding districts over the past 5 years?
5. What is the current level of farmer knowledge and awareness regarding (1) small grains production; (2) production of legumes in these districts?
6. What key rules, regulations, policies have been established to support production and marketing of traditional grains (sorghum; millet) and legumes (ground nuts; cow peas) by SHF? (**probe:** feeder roads, storage facilities, communications, access to inputs, processing facilities, etc.) **To what extent would these issues specifically relate to the Bambara nut value chain?**
7. How do you ensure that these policies and regulations are farmer-centric?
8. Are you currently engaging with the MASAP project, and if yes, in what ways?
9. What incentives exist for farmers to grow neglected legumes? How can the government better support neglected legumes?
10. What challenges does the Ministry face in policy implementation?
11. How do you assess the role of smallholder farmers in implementing national strategies?

12. What infrastructure improvements are needed for the production and marketing of (1) small grains; (2) legumes? To what extent has such infrastructure been established by the Government? What have been the challenges faced?
13. How do you engage with organizations like MASAP and the private sector that are supporting SHF in the small grains and legume value chains? How can these engagements be improved going forward?
14. If the MASAP project is to expand into new districts in supporting farmers and IPs to produce and market small grains and legume crops, which 3 districts would you recommend? (rank in order of priority 1 being the most prioritised)

#	District	Main reason for choosing the district
1		
2		
3		

15. How does the Ministry track production and productivity of farmers in the small grains and legumes value chains? Can you share some figures in terms of recent trends in production and productivity of these crops?
16. How does the Ministry address climate change impacts on agriculture? How does the Ministry promote research and development in agriculture? How do you envision the future of legume farming?
17. How does the Ministry support value-added processing? What role does technology play in the programs of the Ministry focussing at SHF?
18. What future plans does the Ministry have for agriculture, especially small grains and legumes

At the end, district stakeholders should give us a clear/ strong indication on what crops are of economic importance in their district and why?

Province	
District	
Ward	
Informant Name	
Organisation/Ministry/Department	
Position	
Contact Details	
Consultant Name	

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Before we begin, we seek your consent to proceed with this interview and to use your responses for research purposes. We appreciate your willingness to share your expertise, as your contributions will directly inform our recommendations for improving MASAP's interventions in new districts. Thank you for your time and cooperation; your insights are invaluable to this important work.

Section C1: Background

1. What types of small grains (sorghum; millet) and legumes (groundnuts; cowpeas and Bambara nut) seeds do you currently offer? To what extent are these varieties suitable for SHF and their resilience in the face of climate change challenges?
2. How long have you been producing seeds for (1) small grains; (2) legume crops; (3) other crops? (**probe:** *than 1 year / 1-5 years / More than 5 years*)
3. Are you currently engaging with the MASAP project, and if yes, in what ways?
4. Which districts are currently known for successful production of (1) small grains; (2) legumes? What are the main agricultural practices in these districts?
5. What is the current level of farmer knowledge and awareness regarding (1) small grains; (2) legumes in these districts?
6. Which districts are you currently doing seed multiplication for (1) small grains; (2) legumes?
7. Which other districts would you prefer to further conduct seed multiplication and why for (1) small grains; (2) legumes?

Section C2: Market demand

8. What is the current market demand for improved small grains (sorghum; millet) and legumes (groundnuts; cowpeas and Bambara nut) varieties? (**probe for each crop**)
9. Which parts of the country and districts do you distribute the seed varieties for each of these crops? What channels and modalities do you use for this distribution? What barriers do you face in distributing these seeds?

10. What have been the trends in the annual volumes of seed for each of these crops that you have sold over the past 5 years? (**probe:** *increasing; decreasing; constant*). What could explain the trends that you have highlighted?
11. How profitable is the production of each of the following (a) sorghum; (b) millet; (c) groundnuts; (d) cowpeas and (e) Bambara nut seeds for your company? (**probe:** *Very profitable / Somewhat profitable / Not profitable*). What could be the reasons behind your response?
12. How do you assess farmer awareness of available seed varieties?
13. What innovations are you exploring for seed production?
14. What partnerships do you have with local farmers? What challenges have been faced and how can these be addressed?
15. What quality assurance processes do you follow?
16. What feedback do you receive from farmers regarding seed performance?
17. How easy is it for farmers to access your seeds? (**probe:** *Very easy / Somewhat easy / Difficult*). What could be the reasons behind your answer?
18. How satisfied are you with your current distribution network? (**probe:** *Very satisfied / Somewhat satisfied / Not satisfied*). What could be the reasons behind your answer?
19. What challenges do you often face in entering new markets?

Section C3: Climate and agronomic practices

20. What agronomic practices do you recommend for growing (a) small grains; and (b) legumes including Bambara nuts?
21. How do you promote sustainable agricultural practices among farmers?
22. What feedback have you received from buyers regarding your seeds?
23. What role does climate change play in your seed development?

Section C4: Collaboration and coordination

24. How do you engage with agricultural extension services?
25. How can MASAP assist you in promoting Bambara nut seeds?
26. What challenges do you face regarding seed regulations?
27. How do you train farmers on seed use and management?
28. What are your future plans for Bambara nut seed production?
29. How do you assess the growth potential of the Bambara nut market?
30. What incentives would encourage you to invest more in this value chain?
31. What are the primary challenges in maintaining seed quality?
32. How do you track market trends for seed demand?
33. What role does technology play in your operations?
34. If you are already working with the MASAP project, how can this arrangement be improved in terms of its effectiveness? And if you are not currently working with the MASAP project, would you be interested in doing so?

Province	
District	
Ward	
Informant Name	
Organisation/Ministry/Department	
Position	
Contact Details	
Consultant Name	

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Section D1: Background

1. To what extent are you involved in the (1) small grains; (2) legumes value chains? Are you also involved in the small grains value chains? What roles do you play in these value chains?
2. How long have you been involved in the aggregation of (1) small grains; (2) legumes? (**probe:** *Less than 1 year / 1-5 years / More than 5 years*)
3. Are you currently engaging with the MASAP project, and if yes, in what ways?
4. Which districts are currently known for successful farming of (1) small grains; (2) legumes? What are the main agricultural practices in these districts?
5. What is the current level of farmer knowledge and awareness regarding (1) small grains; (2) legumes in these districts?

Section D2: Production and demand trends

6. What volume of each of these crops do you aggregate annually - sorghum; millet; groundnuts; cowpeas and Bambara nut? What are the current sources of each of these crops in terms of (a) type of farmer; (b) province/district (s) of origin of the crops?
7. What are the current trends in demand for sorghum; millet; groundnuts; cowpeas and Bambara nut?
8. What challenges do you face in sourcing each of these value chain crops?
9. How profitable do you find Bambara nuts compared to other legumes? (**probe:** *Very profitable / Somewhat profitable / Not profitable*). Can you further qualify your answer?

Section D3: Marketing

10. What factors influence your purchasing decisions?
11. What quality standards of produce do you require from farmers? How do you ensure that the farmers meet these quality requirements?
12. What infrastructure do you currently have for aggregation? How many aggregation points do you have and where are these located?
13. What feedback do you receive from buyers?
14. How do you handle storage and transportation?
15. What marketing strategies do you currently use?
16. What seasonal fluctuations impact supply?
17. How do post-harvest losses affect your operations? (**probe:** Significant impact / Moderate impact / No impact). Can you qualify your answer further?
18. What is your pricing strategy for Bambara nuts? What is the strategy for other legumes and small grains?
19. What support do you need to improve aggregation processes?
20. What are the main challenges in pricing Bambara nuts?
21. How do you track market trends for Bambara nuts?
22. What trends do you foresee in the Bambara nut market?
23. How satisfied are you with your current market access? (**probe:** Very satisfied / Somewhat satisfied / Not satisfied). Can you qualify your answer further?
24. How do you assess the risk involved in trading Bambara nuts? (**probe:** High risk / Moderate risk / Low risk). What could be the reasons behind your answer?

Section D4: Collaboration and coordination

25. How often do you collaborate with local farmers? (**probe:** Regularly / Occasionally / Rarely). What could be the reasons for your answer?
26. What training do you provide to farmers?
27. What partnerships are you seeking to strengthen your operations?
28. What role do women play in your aggregation processes?
29. How do you adapt to changing consumer preferences?
30. What is your experience with government regulations?
31. How do you promote sustainability in your operations?
32. What support do you think MASAP could provide you?
33. What would encourage you to increase your engagement with smallholder farmers?

Annex 7.7: Checklist for Province/Rural District Councils

Province	
District	
Ward	
Informant Name	
Organisation/Ministry/Department	
Position	
Contact Details	
Consultant Name	

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Please be assured that your responses will remain anonymous, and individual data will not be linked to you personally. This confidentiality is vital for encouraging open and honest feedback.

Before we begin, we seek your consent to proceed with this interview and to use your responses for research purposes. We appreciate your willingness to share your expertise, as your contributions will directly inform our recommendations for improving MASAP's interventions in new districts. Thank you for your time and cooperation; your insights are invaluable to this important work.

Section E1: Background

1. What is the role of the RDC in agricultural development within the province/district?
2. How long have you been involved in local governance? (**probe:** Less than 1 year / 1-5 years / More than 5 years)
3. Are you currently engaging with the MASAP project, and if yes, in what ways? Are there other donor supported projects or private sector supported projects in the district supporting farmers in the sorghum; millet; groundnuts; cowpeas and Bambara nut value chains?
4. Which districts are currently known for successful legume farming, particularly of Bambara nuts? What are the main agricultural practices in these districts?
5. What is the current level of farmer knowledge and awareness regarding Bambara nuts in these districts?
6. In the event that MASAP wants to expand operations in your province in neglected legumes, which neglected legumes would you recommend in terms of priority? What would be the reasons for your recommendations?
7. In addition to the above, which districts/wards would you recommend in terms of priority and what would be your major reasons for your recommendation?

Section E2: Production conditions

8. What are the key agricultural priorities for your province/district?
9. How does the province/district assess the needs of smallholder farmers?
10. What support does the province/RDC provide to farmers in your province/district?

11. What infrastructure improvements are needed in your province/district in relation to the production and marketing of small grains and legumes?

Section E3: Policies and regulations

12. What policy and regulatory issues have been implemented to support the production and marketing of small grains and legumes? Any specific policies towards promotion of neglected legumes such as Bambara nut?
13. What challenges as a province/district do you face in implementing agricultural policies?
14. How do you promote local agricultural initiatives?
15. What data do you collect to inform agricultural policies?
16. How does the province/district engage with local communities on agricultural issues?
17. How do you ensure that policies are inclusive?

Section E4: Production and climate change

How does the province/district address climate change impacts on agriculture?

18. How do you support the development of neglected legume value chains?
19. What training do you provide to council staff on agricultural issues?
20. How do you facilitate access to agricultural finance for farmers?
21. What are the main constraints faced by farmers in your province/district?
22. How do you monitor agricultural production trends?
23. What feedback do you receive from farmers regarding province/council support?
24. What future plans do you have for agricultural development in the province/district?
25. What role does technology play in agricultural initiatives in the province/district?
26. How do you address food security issues in your district?
27. What challenges do you face in engaging with local farmers?
28. How do you assess the success of local agricultural programs?
29. What support do you think MASAP could provide to the province/council?

Section E5: Marketing of agriculture products

30. What role do cooperatives and/or farmers groups/associations play in your province/district?
31. What are the primary barriers to market access for farmers?
32. In what ways is the province/district working to eliminate these barriers and promote access to markets by the farmers?

Annex 7.8: Checklist for NGOs/CSOs Involved in Targeted Value Chains

National	
Province	
Informant Name	
Organisation	
Position	
Contact Details	
Consultant Name	

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As we enter the second phase of MASAP, we aim to identify strategic opportunities for scaling up the production and marketing of drought-tolerant traditional grains (sorghum and millet) and legumes (groundnuts, cowpeas, and Bambara nuts). Your insights are crucial for assessing the viability of neglected legume value chains and selecting appropriate districts for project expansion.

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Before we begin, we seek your consent to proceed with this interview and to use your responses for research purposes. We appreciate your willingness to share your expertise, as your contributions will directly inform our recommendations for improving MASAP's interventions in new districts. Thank you for your time and cooperation; your insights are invaluable to this important work.

Section F1: Background

1. What is your organization's primary focus regarding legume and small grains value chains?
2. How long have you been involved in promoting legume and small grains production? (**probe:** Less than 1 year / 1-5 years / More than 5 years)
3. Which legume and small grains value chains do you currently support?
4. Which districts do you currently operate in, in this province?
5. Are you aware of the MASAP project and have there been areas of collaboration in the past? What opportunities for collaboration are available going into the future?
6. Which districts are currently known for successful legume farming, particularly of Bambara nuts? What are the main agricultural practices in these districts?
7. What is the current level of farmer knowledge and awareness regarding Bambara nuts in these districts?

Section F2: Collaborations and challenges faced

8. What challenges do you encounter in promoting the sorghum; millet; groundnuts; cowpeas and Bambara nut value chains?
9. How do you assess the impact of your programs on smallholder farmers?
10. What partnerships do you have with other stakeholders (e.g., government, private sector)?
11. How do you gather feedback from farmers regarding your programs?

Section F3: Marketing issues

12. What training or capacity-building activities do you provide for farmers? What marketing related training activities on small grains and legumes have you been offering to the farmers?
13. How do you facilitate access to markets for smallholder farmers? (Open-ended)
14. How do you evaluate market demand for the legumes you promote?

Section F4: Production related issues

15. What resources do you provide to farmers to enhance production of small grains and legumes?
16. What role does gender play in your initiatives related to legume and small grains production?
17. How do you address climate change impacts on these value chains?
18. What are the most common pests and diseases affecting legumes in your target areas?
19. How do you promote sustainable agricultural practices among farmers?
20. What data do you collect to inform your interventions?
21. How do you track changes in farmer income related to legume and small grains production? What have been the productivity and production trends over the past few years?
22. What small grains and legume varieties have you been promoting and what have been the outcomes? What barriers do farmers face in adopting new legume and small grains varieties?
23. What success stories can you share from your programs?
24. What innovations are you exploring in your programs?
25. What funding sources do you rely on for your programs?
26. What role does technology play in your initiatives especially in the production and marketing of small grains and legumes?

Section F5: Engagement and coordination

27. How do you engage with local communities to understand their needs?
28. How do you support farmers in accessing quality seeds?
29. What are the key lessons learned from your previous programs?
30. What challenges do you face in measuring the impact of climate change on legume and small grains production?
31. How do you plan to scale your successful initiatives in the future?

National	
Province	
Informant Name	
Organisation	
Position	
Contact Details	
Consultant Name	

Section G1: Background

1. What is the primary focus of your farmer association?
2. How long have you been operational as a farmer association? (*probe: Less than 1 year / 1-5 years / More than 5 years*)
3. Which small grains and legume crops and varieties do your members primarily produce?
4. To what extent has your organisation and/or members collaborated with the MASAP project?
5. Which districts are currently known for successful farming of (1) small grains and (2) legumes? What are the main agricultural practices in these districts?
6. What is the current level of farmer knowledge and awareness regarding Bambara nuts in these districts?

Section G2: Production and productivity

1. What challenges do your members face in producing small grains and legumes?
2. How do you support farmers in improving legume and small grains production?
3. What common practices do your members follow for pest and disease management?
4. What training or resources do you provide to your members?
5. What feedback do you receive from members regarding legume production?
6. How do you promote sustainable agricultural practices among your members?
7. What resources are most needed by your members to enhance legume production?
8. What barriers do your members face in accessing quality seeds?
9. How do you assess the impact of external programs on your members?
10. How do you handle seasonal fluctuations in small grains and legume production?
11. What role does technology play in your members' farming practices?

Section G3: Marketing and market access

12. How do you assess market demand for small grains and legumes among your members?
13. What role does your association play in advocating for farmers' rights?
14. How do you facilitate access to markets for your members?
15. How do you monitor changes in market prices for legumes and small grains?
16. What partnerships do you have with NGOs, government, or other stakeholders?
17. How do you promote cooperative marketing among members? (Open-ended)

Section G4: Collaboration and coordination

18. What innovations or technologies are your members adopting?
19. How do you engage women and youth in your programs?
20. What success stories can you share from your association?
21. How do you envision future collaboration with MASAP?
22. What training do you provide on financial literacy or access to credit?
23. What strategies do you use to promote value-added products from legumes?
24. How do you support members in navigating government regulations?
25. What challenges do you face in reaching remote farmers? (Open-ended)
26. How do you plan to enhance the sustainability of your association in the future?

Annex 7.10 Focus Group Discussion Guide for Farmers in the current MASAP districts

Province	
District	
Ward	
Focus Group Composition	
Adult females:	
Adult males:	
Female youth:	
Male youth:	
Name of Facilitator	
Name of note taker	
Date of Interview	
Start time	
End time	

INTERVIEWER: Introduce the meeting and briefly explain the objective of the meeting.

Thank you for agreeing to participate in this interview. We are conducting a Market Systems Analysis (MSA) as part of the Markets and Seeds Access Project (MASAP), funded by the Swiss Agency for Development and Cooperation (SDC). The goal of this project is to improve food security and resilience among smallholder households in Zimbabwe, particularly focusing on women, by enhancing the adoption and utilization of traditional grains and legumes.

As we enter the second phase of MASAP, we aim to identify strategic opportunities for scaling up the production and marketing of drought-tolerant traditional grains (sorghum and millet) and legumes (groundnuts, cowpeas, and Bambara nuts). Your insights are crucial for assessing the viability of neglected legume value chains and selecting appropriate districts for project expansion.

Please be assured that your responses will remain anonymous, and individual data will not be linked to you personally. This confidentiality is vital for encouraging open and honest feedback.

Before we begin, we seek your consent to proceed with this interview and to use your responses for research purposes. We appreciate your willingness to share your expertise, as your contributions will directly inform our recommendations for improving MASAP's interventions in new districts. Thank you for your time and cooperation; your insights are invaluable to this important work.

1. How long have you been farming sorghum, millet, groundnuts, or cowpeas?
 - Less than 1 year
 - 1-5 years
 - 6-10 years
 - More than 10 years

2. **What types of crops do you currently grow? (*list the crops*)**

Current Practices and Productivity

3. Which of the following crops do you currently grow?
 - Sorghum
 - Millet
 - Groundnuts
 - Cowpeas
 - Bambara nuts

#		Less than 200 kg	200-400 kg	401-600 kg	More than 600 kg
4	What is your average yield per hectare for sorghum?				
5	What is your average yield per hectare for millet?				
6	What is your average yield per hectare for groundnuts?				
7	What is your average yield per hectare for cowpeas?				
8	What is your average yield per hectare for Bambara nuts?				

4. What is your average selling price for the following seed and commodity crops per bucket?

Crop	Average selling price for seed crop	Average selling price for commodity crop
Sorghum		
Millet		
Groundnut		
Cowpeas		
Bambara nut		

Awareness and Knowledge

5. Have you heard of Bambara nuts before this discussion? Yes/No
6. What do you believe are the nutritional benefits of Bambara nuts?
7. What do you know about the market demand for Bambara nuts?

Viability and Interest

8. Do you think Bambara nuts can be a profitable crop? Yes/No
9. What factors do you think would influence the profitability of Bambara nuts?
10. Would you be interested in growing Bambara nuts? Yes/No (*Probe for the reason behind their answer*)
11. What specific benefits would you expect from growing Bambara nuts?
12. What challenges do you foresee in growing Bambara nuts?

Theme 1: Mapping the Core Market

13. Do you believe there is a local market for Bambara nuts? Yes/No (*probe for reasons behind the answer*)
14. Who are the key market actors you interact with for traditional grains and legumes? **Follow-up:** Can you describe your relationship with these actors? (**Probing Issues:** (a) *the level of trust in these relationships;* (b) *any barriers to engaging with these market actors*).
15. What role do government and private sector actors play in supporting your farming activities?
16. Are there any civil society organizations or community-based organizations that you collaborate with? If so, how do they assist you?
17. What challenges do you think you would face in accessing markets for Bambara nuts?
18. How do you currently sell your produce?
19. What marketing strategies do you think would work best for Bambara nuts?

Theme 2: Supporting Functions

20. What are the main challenges you face in creating a competitive market for your crops? **Follow-up:** Which of these challenges do you find most difficult to overcome? (***Probing Issues:** (a) the impact of competition on pricing; (b) barriers related to accessing information about market demand*)
21. Can you identify specific constraints that hinder your production and marketing efforts?
22. What resources or support would help overcome these constraints?

Theme 3: Enabling Environment

23. How do local policies and regulations affect your ability to produce and sell traditional grains and legumes? **Follow-up:** Can you provide an example of a specific policy that impacts you? (***Probing Issues:** (a) awareness of existing agricultural policies; (b) perceptions of the effectiveness of these policies.*)
24. What infrastructure (e.g., roads, storage facilities) do you believe needs improvement to support your farming?

Theme 4: Current Production

25. What traditional grains and legumes do you currently grow, and what are your average yields? **Follow-up:** How do these yields compare to previous years? (***Probing Issues:** (a) Factors influencing yield variations; (b) the availability of inputs like fertilizers and seeds*)
26. What seed varieties do you use, and how satisfied are you with their availability and performance?
27. How do you manage post-harvest handling and storage of your crops?

Theme 5: Climatic and Agro-Ecological Conditions

28. How would you describe the rainfall patterns and temperatures in your area? Do you think these are suitable for growing traditional grains and legumes? **Follow-up:** Have you noticed any changes in these patterns over recent years? (***Probing Issues:** (a) the impact of climate change on farming practices; (b) adaptation strategies farmers are employing*)
29. What soil types are prevalent in your farming area, and how do they affect your crop production?

Theme 6: Farmer Interest and Capacity

30. Are there farmers in your community interested in growing traditional grains and legumes but not currently doing so? What are their reasons? **Follow-up:** What do you think would encourage them to start growing these crops? (***Probing Issues:** (a) perceptions of profitability compared to other crops; (b) awareness of available support or resources*)
31. What knowledge or skills do you think farmers need to improve their production of these crops?

Theme 7: Market Access and Infrastructure

32. What are the current market opportunities you see for traditional grains and legumes in your area? **Follow-up:** How do you currently access these markets? (***Probing Issues:** (a) barriers to accessing local and regional markets; (b) the role of technology in improving market access*)
33. Have you explored any niche markets for your crops? If so, what has been your experience?

Theme 8: Past and Current Projects

34. What past or current projects have you participated in that focused on traditional grains and legumes? What were the outcomes? **Follow-up:** Which aspects of these projects were most beneficial to you? (***Probing Issues:** (a) the sustainability of benefits received from these projects; (b) lessons learned that could inform future initiatives*)
35. How effective do you think these projects have been in enhancing your farming practices?

36. What is your perception of the profitability of traditional grains and legumes compared to other crops you grow? **Follow-up:** What factors influence your profitability for these crops? (**Probing Issues:** (a) *analysis of input costs versus income generated;* (b) *the impact of market fluctuations on profitability*)

Annex 7.11 Focus Group Discussion Guide for Potential New Beneficiary Farmers

Province	
District	
Ward	
Focus Group Composition	
Adult females:	
Adult males:	
Female youth:	
Male youth:	
Name of Facilitator	
Name of note taker	
Date of Interview	
Start time	
End time	

INTERVIEWER: Introduce the meeting and briefly explain the objective of the meeting.

Thank you for agreeing to participate in this interview. We are conducting a Market Systems Analysis (MSA) as part of the Markets and Seeds Access Project (MASAP), funded by the Swiss Agency for Development and Cooperation (SDC). The goal of this project is to improve food security and resilience among smallholder households in Zimbabwe, particularly focusing on women, by enhancing the adoption and utilization of traditional grains and legumes.

As we enter the second phase of MASAP, we aim to identify strategic opportunities for scaling up the production and marketing of drought-tolerant traditional grains (sorghum and millet) and legumes (groundnuts, cowpeas, and Bambara nuts). Your insights are crucial for assessing the viability of neglected legume value chains and selecting appropriate districts for project expansion.

Please be assured that your responses will remain anonymous, and individual data will not be linked to you personally. This confidentiality is vital for encouraging open and honest feedback.

Before we begin, we seek your consent to proceed with this interview and to use your responses for research purposes. We appreciate your willingness to share your expertise, as your contributions will directly inform our recommendations for improving MASAP's interventions in new districts. Thank you for your time and cooperation; your insights are invaluable to this important work.

1. How long have you been farming any of the following crops sorghum, millet, groundnuts, cowpeas or Bambara nut?
 - Less than 1 year
 - 1-5 years
 - 6-10 years
 - More than 10 years
2. **What types of crops do you currently grow? (*list the crops*)**

Current Practices and Productivity

3. Which of the following crops do you currently grow?
 - Sorghum
 - Millet
 - Groundnuts
 - Cowpeas
 - Bambara nut

#		Less than 200 kg	200-400 kg	401-600 kg	More than 600 kg
4	What is your average yield per hectare for sorghum?				
5	What is your average yield per hectare for millet?				
6	What is your average yield per hectare for groundnuts?				
7	What is your average yield per hectare for cowpeas?				
8	What is your average yield per hectare for Bambara nuts?				

9. What is your average selling price for the following seed and commodity crops per bucket?

Crop	Average selling price for seed crop	Average selling price for commodity crop
Sorghum		
Millet		
Groundnut		
Cowpeas		
Bambara nut		

Awareness and Knowledge

4. Have you heard of Bambara nuts before this discussion? Yes/No
5. What do you believe are the nutritional benefits of Bambara nuts?
6. What do you know about the market demand for Bambara nuts?

Viability and Interest

7. Do you think Bambara nuts can be a profitable crop? Yes/No
8. What factors do you think would influence the profitability of Bambara nuts?
9. Would you be interested in growing Bambara nuts? Yes/No (*Probe for the reason behind their answer*)
10. What specific benefits would you expect from growing Bambara nuts?
11. What challenges do you foresee in growing Bambara nuts?

Theme 1: Mapping the Core Market

12. Do you believe there is a local market for Bambara nuts? Yes/No (*probe for reasons behind the answer*)
13. Who do you believe are the key actors in the Bambara nuts market in your area? **Follow-up:** What roles do these actors play in supporting farmers like you? (**Probing Issues:** (a) *the level of collaboration among these actors;* (b) *any barriers to accessing these market actors*)
14. What types of organizations (government, NGOs, CBOs) do you think could be potential partners for supporting the Bambara nuts value chain?
15. What challenges do you think you would face in accessing markets for Bambara nuts?
16. How do you currently sell your produce?
17. What marketing strategies do you think would work best for Bambara nuts?

Theme 2: Supporting Functions

18. What agricultural practices do you currently use, and how would you rate your knowledge of good agricultural practices (GAP) for Bambara nuts? **Follow-up:** What specific GAPs do you think are most important for growing Bambara nuts? (**Probing Issues:** (a) *challenges in adopting GAPs;* (b) *availability of training resources or workshops*)

19. What challenges do you face regarding climate-smart agriculture and financing for your farming activities?

Theme 3: Enabling Environment

20. Are there any existing rules or regulations that you think affect your ability to produce and market Bambara nuts? **Follow-up:** How do you think these regulations could be improved? (**Probing Issues:** (a) awareness of specific agricultural policies; (b) perceptions of how these policies impact your farming)
21. What infrastructure improvements (e.g., roads, storage facilities) do you believe are necessary to support Bambara nuts production?

Theme 4: Current Production

22. What challenges do you anticipate in producing Bambara nuts, such as seed availability or agronomic practices? **Follow-up:** How do you currently handle post-harvest storage and processing? (**Probing Issues:** (a) insights on current seed varieties and their performance; (b) awareness of best practices for post-harvest handling)
23. What other income-generating activities are you currently involved in, and how do they affect your interest in growing Bambara nuts?

Theme 5: Climatic and Agro-Ecological Conditions

24. How would you describe the rainfall patterns and temperatures in your area? Do you think these conditions are suitable for Bambara nuts? **Follow-up:** Have you noticed any recent changes in climate that could impact crop production? (**Probing Issues:** (a) adaptation strategies being used by farmers; (b) historical trends in climate impacts on local agriculture)
25. What soil types are prevalent in your area, and how do you think they would affect Bambara nuts farming?

Theme 6: Farmer Interest and Capacity

26. Are you currently growing any legumes or grains, and do you have an interest in cultivating Bambara nuts? Why or why not? **Follow-up:** What knowledge or skills do you feel you need to start growing Bambara nuts? (**Probing Issues:** (a) reasons for hesitance to adopt new crops; (b) awareness of available resources for learning about Bambara nuts)
27. What are some reasons that might prevent farmers in your community from cultivating Bambara nuts?

Theme 7: Market Access and Infrastructure

28. What existing market opportunities do you see for Bambara nuts, both locally and regionally? **Follow-up:** Have you explored any niche markets for Bambara nuts? (**Probing Issues:** (a) challenges faced in accessing these markets; (b) the role of local cooperatives or groups in market access)
29. What challenges do you face regarding market access for traditional crops?

Theme 8: Past and Current Projects

30. Have you participated in any past or current projects promoting the cultivation of Bambara nuts? What were your experiences? **Follow-up:** What lessons did you learn from these projects that could be applied to future initiatives? (**Probing Issues:** (a) sustainability of benefits from past projects; (b) feedback on project implementation and effectiveness)
31. What types of support or resources from projects have been most beneficial to you?

Theme 9: Gross Margin Analysis

32. What is your perception of the profitability of Bambara nuts compared to other crops you currently grow? **Follow-up:** What factors influence your thoughts on the profitability of this crop? (**Probing Issues:** (a) input costs versus expected market prices for Bambara nuts; (b) economic risks associated with growing Bambara nuts)
33. What input costs do you think would be associated with growing Bambara nuts?
34. How do you currently assess the commercial viability of the crops you grow?

35. What recommendations do you have for improving the economic viability of the Bambara nuts value chain?