



MASAP End of Phase 1 Project Report

1 Executive Summary

The Markets and Seed Access Project (MASAP) Phase 1 successfully laid a formidable foundation for enhancing the **productivity, resilience, and incomes for smallholder farmers** in Zambia and Zimbabwe, despite facing the major challenge of two consecutive seasons marred by severe, El Niño-induced drought. The project's strategy, focused on promoting good agricultural and market-oriented practices for climate-resilient small grains and legumes, demonstrated strong cost-effectiveness and significant achievements across its three core outcomes

Outcome 1: Smallholder farmers have nutritious food and higher incomes

- Farmers achieved final-year yield increases, with the average yield for the three supported crops in **Zambia going up to 1,300 kg/ha**, significantly surpassing the target of 1,155 kg/ha. Farmers in **Zimbabwe** also made exceptional progress, achieving **900 kg/ha** against a target of 825 kg/ha in the final year of Phase 1.
- The project achieved **65 profitable COEs/associations**, vastly exceeding the combined target of 8. **Zambia** saw 52 associations register annual gross profits against a target of 4, and **Zimbabwe** had 13 against a target of 4.
- A cumulative total of **34,268 farmers in phase 1** have been linked with private sector players, significantly exceeding the combined target of 28,321 smallholder farmers.

Outcome 2: Sustainable and predictable availability of Early Generation Seed (EGS), access to affordable quality seed, and related services

- The project successfully engaged **7,395 farmers** in seed production through outgrower schemes, community-owned enterprises, or associations, surpassing the combined target of 5,310. **Zambia** engaged 5,457 farmers, while **Zimbabwe** recorded participation from 1,938 farmers.
- A total of **30 private sector actors** were engaged (Zambia: 17, Zimbabwe: 13). Although this was below the combined target of 50, it was agreed to concentrate on the current number for meaningful engagement and sustainability.
- Private sector partners projected an average increase in business value of **22.5%** attributable to MASAP support mainly attributable to the successful 2024/25 season.

Outcome 3: Gender and youth responsive enabling policy environment supportive of small grains and legumes sectors' needs and interests developed

- A cumulative total of **10 regulations/policies** were targeted with MASAP support, against a target of 12. **Zimbabwe** achieved 7 out of a target of 6, where key achievements included developing an Issues Paper for the Plant Breeders' Rights Act (PBRA), progress on the national **Seed Policy**, engagement on the **SADC Seed Harmonisation Protocol**, and establishing the Farmer Seed Varieties Analysis Working Group (FSVWG). In **Zambia**, 3 out of a target of 6. Key achievements include securing stakeholder buy-in for a proposed **farmer variety registration system** under the Plant Varieties and Seed Act and lobbying to reinstate critical sections in the **PBR Bill**.
- A combined total of **21 policy engagement platforms** were established against a target of 10, where **Zambia** established 10 platforms against a target of 5, and **Zimbabwe** established 11 against a target of 5.

Transversal Themes

The **Gender Action Learning System (GALS)** empowered women to take active roles in decision-making and leadership, with women-only groups being 50% of the innovation fund recipients in Zimbabwe, and a **35% income increase** for women in Zambia attributed to improved market access

The project enhanced resilience through the adoption of **agroecological practices** and the promotion of **drought-resilient crops**, with 60% of farmers in Zimbabwe and 57% in Zambia reporting more resilience.

Key Challenges and Adaptive Strategies

The project's primary challenge was the **recurrent droughts**, which resulted in low productivity, significant seed stock depletion, and the potential for farmers to fall into severe debt.

- **Mitigation:** MASAP proactively implemented a comprehensive **drought mitigation strategy**, which included a **farmer debt cancellation program** and the direct sourcing and provision of certified seed to Intervention Partners (IPs).

Other Challenges included persistent **gender inequalities** concerning asset ownership, the **low participation of youth**, and the **high cost of funds** for IPs' working capital were also observed.

Key Lessons Learned and Way Forward (Phase 2)

Phase 1 established that the three project components must work more closely together and highlighted several critical areas for Phase 2.

- A key lesson was the failure to harness financial service providers. Phase 2 will focus on input insurance for contract farming and establishing stronger linkages between IPs and financial service providers (e.g. ZADT) to de-risk and unlock necessary capital for growth and buyback operations.
- Continued effort is required to address the **absence of a legal framework for farmer varieties and managed seed systems**. Phase 2 will champion interventions to **formalise Public-Private Partnerships** between public breeders and private seed companies for Early Generation Seed (EGS) production.
- The distribution of seed in nutritionally depleted soils compromised productivity. Phase 2 will place a significant emphasis on the **promotion of climate-resilient technologies** aimed at improving soil health and overall productivity.
- The project plans a strategic geographical expansion in Zimbabwe, seeking out new IPs and operating in **two additional districts** to ensure wider reach and reduce climate risk for seed companies.

2 Outcomes achieved

2.1 Description of intended and unintended effects (outcomes / if possible, impact): (3 pages)

a) What are the direct and indirect, positive and negative effects of the project/programme at both population⁷ and institutional/organisational level?
In fragile contexts: What effects can be observed regarding political and social causes of fragility and conflict?

Intended Positive Effects

The MASAP project successfully introduced and promoted various **good agricultural and market-oriented practices**, leading to enhanced **productivity, resilience, and incomes for farmers** across different districts. This was notably achieved through improved access to markets for smallholder commodity and seed growers, facilitated by the private sector's development of inclusive business models. At an institutional level, MASAP's technical assistance significantly improved **internal financial management systems and procurement procedures for Intervention Partners (IPs)**, alongside their experience in contract farming management. Furthermore, the project contributed to stronger **policy and regulatory support for small grains and legumes**, particularly in developing a Farmer Varieties Registration Framework.

In the 2024/25 season, MASAP effectively responded to the severe El Niño-induced drought, which had left farmers burdened by input debts from IPs. A critical component of this response involved facilitating debt cancellation for contracted farmers and directly sourcing quality inputs for affected IPs and Smallholder Farmers (SHFs). This proactive approach ensured that all farmers engaged with IPs had significantly easier access to high-quality seeds compared to other farmers in the operational areas. Following two consecutive poor seasons, food insecurity had intensified, as highlighted in Year 2 and 3 reports, with SHFs starting the 2024/25 season in a high food insecurity situation. However, thanks to favourable rainfall during the 2024/25 season, SHFs were still engaged in harvesting and post-harvest activities by June 2025, leading to a notable improvement in the food security situation from May onwards. In Zambia, discussions with IPs confirmed very good harvests and their readiness to procure contracted seed and crops from smallholder farmers. While buyback activities from farmers were just commencing at the close of Phase 1 in June 2025, Zambian IPs anticipate procuring from over 24,000 smallholder farmers contracted for various MASAP-supported seed and commodity crops. Concurrently in Zimbabwe, the 2024-2025 agricultural season, as per the Second Round of Crops, Livestock and Fisheries Assessment Report, demonstrated significant improvement with above-normal rainfall, resulting in strong harvests and a national cereal surplus. IPs in Zimbabwe who contracted small grains in both Mudzi and Tsholotsho reported increased harvests due to the favourable rains and effective agricultural practices. Conversely, those who contracted groundnuts experienced critically poor harvests attributed to rainfall distribution issues over the season. Nonetheless, approximately 2,200 farmers contracted in small grains are projected to generate income through MASAP IPs, showcasing the program's vital contribution to farmer resilience and food security across the region.

A significant shift is evident in Mudzi, where groundnut is a major cash crop; MASAP's market access support has encouraged farmers to transition from maize to small grains. Advancement of climate-resilient initiatives has resulted in IPs (OSG, NTS and TOCEK Investments) requesting production of small grains in Mudzi, hence the production of sorghum and pearl millet seed and commodity in the district. Similarly, smallholder farmers in Sesheke and Sioma have expanded their land under sorghum and pearl millet production.

Farmers, organised through producer associations, innovation fund recipients, and microenterprise groups supported by IPs, have gained a deeper appreciation for **farming as a business** following extensive business management training. These producer associations and cooperatives are now empowered to voice concerns over unfair contract arrangements. The introduction of **mechanical Community-Based Organizations (CBOs)**, such as those operating threshers, has remarkably lessened the post-harvest processing burden, increasing the appeal of traditional grains. Some CBOs even envision acquiring more mechanical equipment to support the entire value chain from tillage to post-harvest management. To bolster this, the project has engaged government ministries to provide technical support in food processing and storage, empowering producer groups to commercialise the value addition of their crops. This appreciation for farming as a business has led to increased adoption of traditional grains for income generation through structured markets readily accessible to farmers.

Furthermore, there has been notable **adoption of cowpeas and small grains in Chipata**, thanks to the efforts of IPs like Farmers Outgrower Foundation (FoF), which successfully introduced seed multiplication of these crops. The recurrent droughts in Phase I reinforced farmers' understanding of these crops' drought resilience, leading to a significant surge in demand for seeds that FoF has struggled to meet. As the project concluded with a favourable season, the measurement of indirect beneficiaries has begun to materialise. Community-Owned Businesses (COBs) and associations that received equipment are now servicing wider communities, including non-MASAP farmers, for threshing and shelling. Moreover, IPs like FoF, COMACO, CDFA, and CDWA plan to multiply MASAP-supported seed for distribution in districts beyond the project's direct reach, thereby expanding access to materials and services for an even greater number of smallholder farmers.

Unintended Negative Effects

Despite the numerous successes, the project also encountered some unintended negative effects, primarily driven by external factors. The **recurrent droughts since project inception hindered expected increases in productivity and incomes**. This climatic adversity created a potential for farmers to fall into significant debt due to poor harvests. However, the project proactively responded with a comprehensive **drought mitigation strategy**, which included a farmer debt cancellation program, successfully shielding farmers from severe financial distress.

In the context of Zimbabwe, the fragility observed amongst smallholder farmers is primarily driven by **climate change factors**, which directly impact agricultural production and productivity, leading to significant **food and income insecurity**. This environmental vulnerability forms a core social and economic challenge contributing to fragility.

Beyond environmental factors, the project has observed that **gender inequalities remain prevalent**, particularly concerning the **ownership of productive assets at the family level**. This systemic marginalisation disproportionately affects women, girls, and youth, effectively excluding them from vital economic opportunities, including equitable access to markets. The **low participation of youth in project activities** further exacerbates their exclusion from economic opportunities, representing a missed potential for broader social stability and economic dynamism. While the project actively works to mitigate these issues through its interventions, widely through the promotion of the GALS approach, these underlying social causes of fragility continue to pose significant challenges within the operational environment.

b) What is the degree of achievement of planned objectives of the project/programme (to be put into relation with respective indicators: comparison 'planned – executed' according to the logframe)? May impact hypotheses/theories of change be confirmed or have they to be [been] adapted?

Outcome 1: Smallholder farmers – in particular women, youth and other marginalised groups - have nutritious food and higher incomes

Outcome 1 Indicator 1: Annual yield for specific crops (kg/ha) by smallholder farmers supported

The project phase 1 was faced with the major challenge of two consecutive seasons marred by poor rainfall, particularly the 23/24, where there were significant drops in yields from the baseline data. The third (last) season of phase 1 (24/25) received a significant amount of rain across the two countries, and the yields significantly went up. Despite inherent complexities in measuring diverse crops like cowpeas, groundnuts, sorghum, and millets under a single metric, MASAP-supported farmers have achieved impressive yield increases.

- In **Zambia**, average yields soared to **1,300 kg/ha** in the final year of phase 1, significantly surpassing the target of 1,155 kg/ha.
- **Zimbabwean** farmers also had exceptional progress, achieving **900 kg/ha** in the final year of phase 1 against a target of 825 kg/ha.

Outcome 1 Indicator 2: Number of COEs/associations identified registering annual Gross Profits (hence potentially explaining the potential income increase of smallholder farmer members)

The project achieved **65 profitable associations** against a combined target of 8. This exceptional success highlights MASAP's profound effectiveness in identifying, nurturing, and empowering grassroots economic engines. Even with the project starting slowly due to low yields in the first two seasons, the 2024/25 season has seen the association starting to realise significant income from business generated through MASAP-supported crops and activities. **Zambia** achieved **52 associations** registering annual gross profits, vastly surpassing its target of 4, while **Zimbabwe** saw **13 associations** achieve annual gross profits, also exceeding its target of 4.

Outcome 1 Indicator 3: Number of Smallholder Farmers with increased access to markets and related services supported by MASAP productive partnerships with potential buyers)

Since its inception, the project has connected a cumulative total of **34,268 farmers directly with private sector players**, significantly exceeding the combined target of 28,321 smallholder farmers. **Zambia**, leveraging its favourable climatic conditions and robust crop aggregation activities in the Eastern province, successfully linked **28,639 farmers** directly under contract farming. Zimbabwe 5629 has been directly linked to the Private sector companies.

Outcome 1 Indicator 4: Number of smallholder farmers (direct and indirect) with access to and utilising diverse and adapted seeds, planting materials and related services promoted through MASAP project activities.

The MASAP project focuses on the cultivation of crops supported by its initiatives. In the initial two seasons, it was not possible to account for indirect beneficiaries due to limited production and a shortage of seeds. However, the promising results from the 2024/25 season have instilled optimism in IPs regarding their ability to identify and engage indirect beneficiaries. For example, FoF in Chipata intends to expand its seed multiplication efforts for sorghum and cowpeas to smallholder farmers (SHFs) in non-MASAP districts, such as Petauke, Katete, Sinda, and Nyimba. This initiative will enable these farmers to access seeds and planting materials produced through the MASAP project, thereby enhancing their sales potential. Furthermore, COMACO plans to multiply and distribute cowpea and groundnut seeds through its extensive network of over 64,000 SHFs, who will have access to materials produced under MASAP. In Tsholotsho, Community-Owned Businesses (COBs) are providing threshing services for sorghum and millet across multiple wards, thereby reaching a substantial number of indirect beneficiaries. Initially, with nascent production and a shortage of seeds, the project's direct reach was inherently constrained, making it difficult to quantify how widely the benefits of the cultivated crops and agricultural practices spread beyond the immediately supported farmers. When seed supply is limited, the ripple effect through informal networks, which is how many indirect beneficiaries acquire seeds or knowledge, is naturally restricted and difficult to measure.

Outcome 2: Sustainable and predictable availability of EGS, access to affordable quality small grain and legume seed and related services by smallholder farmers through increased engagement of the private sector

Outcome 2 Indicator 2: Number of smallholder farmers engaged in seed production (of the target number) through Out Grower schemes, community-owned enterprises or associations,

Both Zambia and Zimbabwe have successfully exceeded their respective targets, thereby highlighting the effectiveness of the project in advancing seed production among smallholder farmers. Zambia successfully engaged 5,457 farmers in seed production, surpassing its target of 4,000. In a similar vein, Zimbabwe recorded participation from 1,938 farmers in seed production, exceeding its target of 1,310. This cumulative achievement of 7,395 farmers, against a combined target of 5,310, underscores a substantial positive impact on the participation of Smallholder farmers in seed production.

Outcome 2 Indicator 3; Number of private sector value chain actors with improved outreach, strengthened business plans with specified strategies to reach women, youth and disadvantaged groups.

Zambia engaged 17 private sector actors, which is below the target of 25, while Zimbabwe achieved a total of 13, also falling short of the same target. The overall achievement of 30 actors was discussed with the SDC, where there was a consensus that the project should concentrate on the current number of actors. This method aims to prioritise meaningful engagement over quantity and ensure the sustainability of the investments made.

Outcome 2 Indicator 4.: Percentage increase in value of business generated by value chain players (financial services, Agricultural inputs suppliers, commodity distributors etc.)

Measuring this indicator presented significant challenges during the initial two seasons, characterised by low yields, with some IPs experiencing complete seed loss and an inability to realise any increase in business value. However, the final season of Phase 1 has been marked by considerably improved rainfall and successful harvests. Although the season remains ongoing, IPs have formulated projections regarding anticipated yields and expected business outcomes. IPs have conducted a critical assessment of the catalytic support provided by MASAP, which encompasses various resources, including motorcycles, laptops, cost-sharing of machinery, and the engagement of field officers. Furthermore, a notable component of this support has been the implementation of a drought response plan, enabling the distribution of seed to farmers through a farmer debt cancellation initiative. In Zambia, an average business value increase of 25% has been projected, exceeding the target of 15%. The actual values will be computed by the companies at the end of the year, and MASAP will continue to monitor these developments. In Zimbabwe, all IPs involved in the production of small grain seeds and commodities have expressed their appreciation for the support provided by MASAP, with many anticipating the revival of their inventories and an increase in revenue. The average estimate for IPs in Zimbabwe is approximately a 20% revenue increase, although those focusing exclusively on groundnuts have found it challenging to provide a definitive response to this inquiry.

Outcome 3: Gender and youth responsive enabling policy environment supportive of small grains and legumes sectors' needs and interests developed.

Outcome 3 indicator 1: Number of policy/regulatory changes in agricultural and food security (including related to private sector plans), supportive of small grains and legumes sectors' needs and interests, that are developed, implemented and attributable to the project's evidence-based advocacy.

Zimbabwe achieved 7 policy changes, surpassing the target of 6. Zambia achieved 3 policy changes against a target of 6. Cumulatively, the total number of policy changes made with MASAP support amounted to 10, in comparison to a target of 12.

In Zimbabwe, key achievements include the **Plant Breeders' Rights Act (PBRA)**, for which an Issues Paper was developed for Cabinet submission, following a comprehensive review of the Act and associated policies. For the **Seed Act**, an issues paper was developed, and awareness was raised among key stakeholders. Engagement with the government has led to significant progress in establishing a national **Seed Policy**, with CTDO convening several consultative meetings. Furthermore, Zimbabwe actively engaged with the government regarding its position on the **SADC Seed Harmonisation Protocol**, which was signed in July 2024, facilitating cross-border seed access for MASAP partners. Regarding the **Plant Genetic Resources for Food & Agriculture Bill**, an agreement was signed, establishing a national seed analysis group, facilitating continuous dialogue by the National Seed Analysis Working Group, and creating a Farmer Seed Varieties Analysis Working Group (FSVWG) chaired by the Ministry of Agriculture. This FSVWG conducted a baseline in five districts on farmer varieties registration, reviewed the Seeds Act, and raised awareness on the potential impact of UPOV 91 and Farmers' Rights. In **Food Safety**, an international expert was engaged to capacitate two national experts, assisting Implementing Partners with compliance. A MASAP Working Group on Aflatoxin, involving government officials, was formed with drafted ToRs, and Marondera University of Agricultural Science and Technology (MUASt) conducted evidence-based nutritional and food safety profiling of farmer and processor samples. Lastly, the **Youth and Gender Policy** saw the engagement of GALS experts to conduct gender analysis and work with communities at the district level to address gender barriers, training farmers and SMEs.

In Zambia, for the **Plant Varieties and Seed Act**, significant stakeholder buy-in was secured from parliamentary committees, SCCI, traditional leaders, farmer groups, and ZARI, all poised to support the proposed farmer variety registration system. A project-convened task team, including CTDT, finalised the draft farmer variety registration framework and submitted comments to SCCI, while awareness was extensively raised among farmers, civil society, and media regarding seed law reviews and the proposed framework. In the **Plant Breeders' Rights Act (PBRA)**, successful lobbying obtained assurances from SCCI to reinstate critical Sections 8 (exemptions) and 12 (public interest) in the PBR Bill, addressing major concerns for CTDT and partners and increasing professional stakeholder interest in seed law issues. Additionally, foundational steps were taken for the **Youth and Gender Policy** through a

review of existing data, preliminary findings from a socio-economic survey, the design of a policy development strategy, field data collection, and robust stakeholder engagements with Implementing Partner representatives, producer groups, and government departments.

Outcome 3 Indicator 2: Number and success of multi-stakeholder policy engagement platforms (or similar) that facilitate substantive evidence-based exchanges between project stakeholders and policymakers.

Both Zambia and Zimbabwe have significantly exceeded their respective targets in the establishment of collaborative policy platforms, thereby demonstrating their strong capabilities in fostering cooperative policy environments. Zambia successfully established 10 platforms, which is double its initial target of 5, while Zimbabwe established 11 platforms, also exceeding its target of 5. The combined achievement of 21 platforms against a total target of 10 highlights the project's remarkable performance in this vital area.

The project acknowledges the initial challenges associated with comprehensive yield measurement and the imperative to enhance policy advocacy in Zambia. These insights have informed the adaptive strategies for Phase 2. The considerable achievements across all three outcomes underscore the project's significant contributions to food security, income generation, and policy reform. MASAP Phase 1 has not only fulfilled its objectives but has also established a dynamic ecosystem of empowered farmers, reinforced value chains, and a more responsive policy environment.

c) A cost-benefit analysis (CBA) and / or a cost-effectiveness analysis (CEA) of achieved outcomes

Cost-Effectiveness Analysis of the achieved outcomes has shown that the intervention was cost-effective. The summarised interpretation of the analysis is as follows:

1	It cost CHF 252.36 to support each farmer reached during MASAP Phase 1
2	Each farmer reached during Phase 1 on average, increased annual yield by 85.65kg
3	For every additional Kg of yield attained through MASAP Phase 1, it costs CHF 0.63
4	Almost half the beneficiaries shifted to targeted small grains and legumes, an indication of a moderate adoption rate
5	With 34268 farmers having improved market access points, the intervention is being effective in integrating smallholder farmers into MASAP value chains
6	The 30 private sector companies now have better business planning with an increased business value of 22.5% attributable to MASAP
Conclusions	
	The MASAP Intervention shows strong cost-effectiveness by development standards, CHF 0.63/kg yield increase is low, indicating efficiency. CHF 252.36 per farmer is reasonable if yield increases are sustained. Market access and adoption indicators point to systemic improvements, not just isolated yield changes. There is an increase in business value for Private Sector companies attributable to MASAP

Refer to Appendix 2 for the calculations and assumptions of the Cost-Effectiveness Analysis.

2.2 Transversal themes (Gender and governance):

Gender:

The project has shown significant positive effects in reducing gender inequalities and empowering women, ensuring that they can participate equitably and benefit from various initiatives. Women-led farmer groups have been actively involved in seed production and distribution, which has substantially improved their economic independence. The implementation of the Gender Action Learning System (GALS) methodology has played a crucial role in enabling both men and women to critically analyse and address the challenges that contribute to gender inequalities. Using the Social Empowerment Map, households and communities supported by MASAP have embraced and implemented the solutions identified. This has fostered a positive shift towards reducing inequalities, as both genders have gained a deeper appreciation for the distinct and complementary roles each plays in economic development at both the household and community levels.

GALS specifically empowered women to take an active role in decision-making regarding farming practices and market engagement, as well as to participate in value chain activities that have traditionally been dominated by men. MASAP-supported associations and community-owned businesses that have undergone governance training have successfully empowered women to take on leadership positions. Women farmers involved in the project have reported experiencing higher and diversified incomes, primarily due to improved access to quality seeds and structured markets. Overall, in Zambia, there has been a 35% increase in women's income attributed to improved access to structured markets. In Zimbabwe, the innovation fund groups and microenterprise groups (Community-Based Organizations) exhibit a higher participation of women, with 50% of the innovation fund recipients being women-only recipients, highlighting targeted support for female entrepreneurship. While GALS has demonstrably helped shift established gender norms, the sustainability of this progress necessitates continued mentorship and policy support. The project's dedicated gender sensitisation and mainstreaming efforts have yielded encouraging results, with reports from men's groups indicating a positive shift towards consulting their wives and children in household decision-making, demonstrating a broader adoption of inclusive practices at the household level.

Governance:

During Phase I, the MASAP project's **Good Governance Training** significantly bolstered the governance capacities of its **IPs, value chain stakeholders, and farmer groups**. This comprehensive training program focused on embedding core principles, including **accountability, transparency, ethical leadership, stakeholder inclusion, and risk management**. This approach established a robust foundation for more responsible, participatory, and sustainable organisational practices across the agricultural sector.

The trainings notably enhanced the capabilities of IPs and farmer organisations, fostering a clearer understanding of **institutional governance, ethical leadership, and accountability**. This led to concrete commitments to **revise governance structures, develop codes of conduct, and improve transparency** in both financial and non-financial reporting, including inclusive stakeholder disclosures. A notable example of this impact occurred in Zimbabwe, where **Buntu Foods**, an IP, directly benefited from the expertise of MASAP's Good Governance consultants. Facing a significant shareholding dispute between its two directors, the company successfully restructured, hired a full-time operations manager, and aligned its operations with good governance standards.

Participants of the training also gained a deeper appreciation for **enhanced stakeholder engagement** through inclusive consultations and committed to integrating **practical risk management**. This involved identifying sector-specific risks and designing effective mitigation strategies. The training empowered them with a crucial **capacity for real-life problem-solving**, enabling them to address critical issues such as the misuse of project funds and non-compliance. Furthermore, the program facilitated **peer learning and networking** among organisations, cultivating a collaborative environment for continuous improvement.

Overall, the Good Governance Training was a pivotal intervention during MASAP Phase I. It significantly improved internal accountability mechanisms, fostered a stronger culture of ethical leadership, and encouraged participatory decision-making among all engaged IPs, value chain actors, and farmer groups. These advancements are expected to contribute to the development of more resilient, transparent, and inclusive agricultural enterprises moving forward.

Other transversal themes, e.g climate change, HIV, etc

The project has demonstrated tangible effects in enhancing climate change resilience in both Zambia and Zimbabwe through the adoption of agroecological practices and climate-smart agriculture.

In **Zambia**, research conducted by COMACO among Gliricidia agroforestry farmers and non-Gliricidia farmers revealed that, over time, **Gliricidia significantly increased maize crop yields**, outperforming yields achieved with chemical fertilisers. This highlights the substantial potential of agroforestry within small grain farming systems. Furthermore, Gliricidia agroforestry demonstrably **improved soil fertility over time, reducing dependence on synthetic fertilisers**. These findings are reinforced by successful field demonstrations.

In **Zimbabwe**, the project identified the crucial role of **indigenous climate indicators as part of climatic early warning systems** in both Mudzi and Tsholotsho, showcasing the value of local knowledge in climate adaptation. An assessment of soils and socio-economic attributes of farmers practising conservation agriculture (CA) in Mudzi showed marked improvements. These included **reduced soil acidity, increased soil organic carbon content, enhanced nutrient cycling, and reduced soil compaction**. Concurrently, farmers experienced **improved crop yield**,

food security, and average income, with benefits escalating proportionally to the duration of CA practice. The project also addressed critical aspects of **seed storage in a changing climate**.

The MASAP Impact Assessment further confirmed that beneficiaries, since the commencement of MASAP interventions, have experienced **significant improvements in food security and dietary diversity**, particularly in regions where climate-smart agriculture practices were actively implemented. However, MASAP research also revealed how existing **inequalities and social norms exacerbate climate change challenges for adolescent girls and women in Mudzi**. This finding sheds critical light on the **gendered dimensions of climate change** and underscores the imperative to strengthen gender-responsive approaches within MASAP's future programming.

3 Outputs and performance, partners and context

Outcome 1 Outputs

Output 1.1: Community-owned enterprises and associations are strengthened and effectively provide services that meet the interests, demands and needs of smallholders, esp. women, youth and disadvantaged groups

A total of **65 COBs across Zimbabwe and Zambia** have received comprehensive training over the past two and a half years. This training encompassed critical areas vital for sustainable business operations:

- **Group/Association Formation and Strengthening:** Facilitating the establishment and cohesion of community-led groups.
- **Business Planning and Management:** Equipping COBs with essential skills for effective operational and financial management.
- **Governance:** Enhancing the structural and ethical frameworks for transparent and accountable leadership.
- **Gender Action and Learning System (GALS)**

Of the 65 COBs trained, **52 are in Zambia and 13 in Zimbabwe**. While initial harvests during the first two seasons were limited, impacting the COBs' ability to adequately serve smallholder farmers, recent developments indicate positive shifts. In **Zambia**, large associations that include the Chipata District Women's Association (CDWA) and the Chipata District Farmers Association (CDFA) have reported **increased member satisfaction**. Their membership base is strengthening, with previously inactive members reinstating their participation. This resurgence is attributed to the tangible benefits provided through the MASAP program, particularly in input supply and linkages with other IPs such as Akshaya and Powerfine for commodity sales. In **Zimbabwe**, COBs in Tsholotsho have demonstrated **significant income generation** in the most recent season, primarily through the utilisation of equipment like threshers. During the reporting period, interviewed groups were actively addressing a backlog of farmers (both MASAP and non-MASAP beneficiaries) awaiting threshing services. Members have expressed **enthusiasm and gratitude** for the equipment and the foundational training received, which have enabled them to establish profitable pricing structures while ensuring the sustainable maintenance of their machinery. The sustained training and strategic partnerships are beginning to yield positive outcomes, reinforcing the potential for COBs to significantly contribute to the livelihoods of smallholder farmers in both Zimbabwe and Zambia.

Output 1.2: Increased access to and adoption of certified seed of small grains and legumes by smallholder farmers.

In response to the severe impact of the 2023/24 drought, which resulted in significant seed stock depletion, MASAP initiated a comprehensive drought response plan. This plan encompassed:

1. **Smallholder Farmer (SHF) Debt Cancellation by IPs:** To alleviate the financial burden on farmers affected by crop failure, MASAP implemented a program to cancel existing debts for smallholder farmers. This measure was crucial in enabling farmers to recover and prepare for subsequent planting seasons without the impediment of outstanding financial obligations.
2. **Certified Seed Provision to IPs:** MASAP provided certified seed to its IPs, enabling them to disburse fresh seed loans to farmers. This ensured that farmers had access to high-quality planting material, critical for successful agricultural recovery and productivity.

As a direct result of these interventions, **all 34,268 farmers directly engaged in contract farming through MASAP support have successfully accessed certified seed** comprised of **small grains and legumes**, crops known for their resilience and suitability to the local climatic conditions.

Output 1.3: Well-governed community-owned enterprises and associations, where women, youth and disadvantaged groups are empowered as managers and leaders.

The **empowerment of women as managers and leaders** across all formed and strengthened groups and associations has been achieved. This has ensured that women are at the forefront of decision-making and operational management. Furthermore, **all groups participated in the Gender Action Learning System (GALS) trainings**. This training has significantly enhanced the understanding of the critical importance of equal participation from all members, both men and women, in group activities and leadership. It is noteworthy that approximately **80% of these groups are predominantly comprised of women**, underscoring the significant female involvement and leadership within these community-based initiatives. This demonstrates a strong commitment to gender equality and women's empowerment within the program's framework.

Output 1.4: Improved soil fertility resulting from improved farming practices

On the ground, the impact has been profound. Through Farmer Field Schools (FFS) and community seed banking, the project facilitated inclusive capacity building for smallholder farmers, reaching over 3,926 farmers in Zimbabwe and 5,750 in Zambia, with a remarkable 78% of participants being women. These farmers now actively engage in climate-resilient seed and food/commodity production. Lead farmers within the FFS have also been instrumental in cascading techniques to follower farmers, thereby building the capacity of the broader communities. The recent Outcome Impact Assessment study commissioned by MASAP in Zambia and Zimbabwe revealed a significant increase in the application of improved agroecological practices among beneficiaries compared to baseline data. In **Zimbabwe**, the study indicated that **over 80% of surveyed MASAP direct beneficiaries** are now implementing a range of improved farming practices. These include various **conservation agriculture (CA) techniques** such as contours, mulching, composting, planting basins, ripping, water harvesting, and crop rotation for disease and pest management. **Planting basins** have seen particularly widespread adoption in Zimbabwe. This is attributed to their role as a prerequisite for receiving government input support and the valuable lessons learned from previous dry seasons, where farmers utilising planting basins were able to achieve some level of harvest. In **Zambia**, **over 70% of surveyed beneficiaries** reported applying improved practices. These encompass minimum tillage (ripping), planting basins, crop rotation, composting, the use of inoculants, growing legumes, and incorporating green manure into their farming systems.

Output 1.5: Higher and more stable crop yields leading to consumption of healthy diets and improved farming practices.

The Outcome Impact Assessment (OIA) survey reveals that a significant proportion of MASAP-supported farmers perceive an increased capacity to manage the adverse effects of climate change. Specifically, **60% of farmers in Zimbabwe and 57% in Zambia** reported feeling more resilient. In **Zimbabwe**, while the adoption of drought-tolerant crops has contributed to this improved outlook, a large number of farmers highlighted the ongoing necessity for **enhanced irrigation systems, including the drilling of boreholes**. This indicates a desire for more robust water management strategies to further bolster their ability to cope with climate variability. Furthermore, limited access to **accurate seasonal weather information and advisory services** was identified as a factor impacting their overall climate resilience. In **Zambia**, the survey indicated that the **Good Agricultural Practices (GAPs)** and **improved seed varieties** introduced through MASAP have been effective in mitigating the impacts of low-to-moderate drought conditions. However, their efficacy notably diminishes under severe drought conditions, such as those experienced during the 2023/24 season. This underscores the critical need for complementary interventions, particularly in **water harvesting and irrigation technologies**, to ensure sustained resilience in the face of extreme climatic events.

Outcome 2 Outputs

Output 2.1: Private and public sector partnerships in EGS production and marketing established.

While formal Public-Private Partnerships (PPPs) haven't been officially established, the project has proactively facilitated informal linkages between the two public breeding institutions we've partnered with and several of our partner seed companies.

In Zambia, ZARI is already collaborating closely with MASAP IPs Share Africa, DLROBA, Tience, and Peniel. Similarly, in Zimbabwe, the CBI is set to work in close conjunction with Tocek and National Tested Seeds (NTS) for the production and marketing of Early Generation Seed (EGS). These informal relationships aim to streamline the seed value chain and enhance the availability of quality seeds to farmers.

Output 2.2: Innovative, inclusive and effective business models and value chain mechanisms that address the interests, demands and needs of smallholders, esp. women, youth and disadvantaged groups are identified and ready for scale up in the second phase.

MASAP has successfully partnered with a **cumulative total of 30 value chain actors** across selected districts within the small grains and legumes value chains. These collaborations have been instrumental in developing and supporting **improved business models and value chain mechanisms** designed to directly benefit smallholder farmers. In Zambia, 17 IPs were initially engaged in the MASAP project. However, one partner, **Shais Foods**, was discontinued in the final season due to documented issues regarding the accountability of MASAP funds. In Zimbabwe, a cumulative total of 13 partners were engaged. Of these, **two partners, Associated Foods Zimbabwe and Mr Brands**, ceased operations. Additionally, **Verager Pvt Ltd** was discontinued due to a misalignment of its objectives with those of the MASAP program. MASAP continues to monitor the performance and alignment of its partnerships to ensure effective resource utilisation and sustained benefits for smallholder farmers.

Output 2.3: Large and small seed companies producing and marketing small grain and legume seeds.

MASAP has collaborated with a total of **14 seed value chain actors** in Zimbabwe and Zambia for the multiplication and production of certified and quality-declared seed. This includes partnerships with two government breeding institutions: the **Zambian Agricultural Research Institute (ZARI)** in Zambia and the **Crop Breeding Institute (CBI)** in Zimbabwe. In Zambia, MASAP has engaged **10 seed companies along with ZARI**, resulting in a total of **11 IPs** actively involved in seed production. The majority of this seed production is concentrated in the **Chipata district**, owing to its more favourable climatic conditions compared to Sioma/Sesheke, which optimises seed yield and quality. In Zimbabwe, MASAP has engaged **two seed companies, Tocek and National Tested Seeds**, for seed multiplication activities. Additionally, the **Crop Breeding Institute (CBI)** has been engaged for the production of Early Generation Seed (EGS), which is fundamental for ensuring the quality and availability of foundational seed stock.

As the project concluded its current phase on June 30, IPs were actively engaged in **aggregation and preparing for commodity buybacks**. This means that the actual increase in the volume of small grain and legume seeds produced could not be computed, but Key Informant Interviews with IP representatives indicate a significant increase in the volume of small grain and legume seeds produced this season, directly attributable to MASAP's interventions, especially after implementing input debt cancellation and aiming to rebuild the inputs revolving fund. In Zambia, an **estimated increase of over 70%** in production volume was reported. In Zimbabwe, an **increase of over 50%** was estimated. The comparatively lower percentage in Zimbabwe is primarily due to the **poor performance of groundnuts in the Mudzi district** this season. Conversely, **small grains performed well in both Tsholotsho and Mudzi**, contributing positively to the overall figures despite the groundnut challenges.

Output 2.4: Private sector firms processing (including value addition) small grain and legume commodities and products.

MASAP engaged a total of **24 IPs** for the processing of small grain and legume commodities and products across both Zimbabwe and Zambia. In Zambia, 14 IPs were initially engaged in these processing activities. One of these partners was subsequently **discontinued**, bringing the current number of active IPs in Zambia to 13. In Zimbabwe, a cumulative total of 10 IPs were engaged. Of these, **two partners ceased operations**, and **one was discontinued**, resulting in 7 active IPs in Zimbabwe. Consistent with the observed increases in production volumes, the processing activities are projected to show significant growth. The increase in processing volume is expected to be **over 80% for both Zambia and Zimbabwe** for the 2024/25 farming season.

Output 2.5: Access to on-farm processing technologies by smallholder farmers, esp. for women, youth and disadvantaged farmers

As reported under Outcome 1, farm equipment procured with MASAP support has been extensively utilised this season, particularly **threshers and shellers**. In Zimbabwe, threshers have demonstrated full utilisation in Tsholotsho, serving both MASAP-engaged and non-MASAP farmers. It is projected that **over 70% of MASAP farmers** in

Zimbabwe who cultivate small grains will benefit from the use of these threshers. While the exact number of non-MASAP beneficiaries is still being determined, it is anticipated to be substantial. Conversely, the utilisation rate for shellers will be considerably lower due to the **poor performance of groundnuts** this season. In **Zambia**, a similar process of equipment utilisation is underway. It is anticipated that **over 80% of MASAP-contracted farmers** will benefit from the use of this machinery during the current season.

Output 2.6: Improved access to finance and insurance schemes by emerging seed companies

Work pertaining to this specific output has been strategically scheduled for implementation during the second phase of the project.

Outcome 3 Outputs

Output 3.1: Evidence related to small grain and legume seed and commodity, including related to youth, women and disadvantaged group contributions, is available and circulates among stakeholders

MASAP successfully involved **over 6,000 farmers** in Zambia and Zimbabwe in farmer-led research and other action research initiatives. This significantly surpassed the initial target of 990 participants. These activities focused on the production and post-harvest management of resilient (agro-ecological) small grain and legume seed and commodities.

In **Zimbabwe**, the **Crop Breeding Institute (CBI)**, the **Universities Consortium**, and the **Community Technology Development Organisation (CTDO)** spearheaded various action research activities. These included:

- **Participatory Varietal Selection (PVS):** Engaging farmers directly in selecting and evaluating crop varieties best suited to their local conditions.
- **Post-harvest Treatment Trials:** Investigating effective methods to reduce post-harvest losses.
- **Improved Grain Storage Methods:** Developing and testing better ways to store harvested grain, ensuring food security and market access.

In **Zambia**, the **Zambian Agricultural Research Institute (ZARI)** utilised a **participatory plant breeding approach**, directly involving farmers in developing resilient agricultural technologies on their own fields. Concurrently, **COMACO** engaged in research on the use of **Gliricidia for pest management** and innovative **product development** from small grains and legumes.

Output 3.2: Evidence-based policy options developed that accelerate crop-specific development, production and marketing small grains and legumes.

MASAP has successfully facilitated and engaged in 6 policy options informed by evidence supporting farmer-led seed systems, including advancements in the Seed Act, Plant Breeders' Rights Act, GMO regulations, the Plant Varieties and Seeds Act, Food Safety Regulations (Zambia), and the SADC Seed Harmonisation Protocol (Zimbabwe). This evidence-based approach towards the Farmer Varieties Registration Framework development contributes to more effective policies that address the needs of farmer varieties. Significantly, MASAP continued to facilitate the operations of the National Seed Working Group in Zimbabwe, chaired by the Ministry of Agriculture, driving the farmer varieties registration framework. This group, which includes research and policy sub-committees, fosters government ownership of the project and facilitates the review of national (Zimbabwe) and regional (covering Zambia too) Seed Policies. In Zimbabwe, the group also finalised the baseline study report on the Farmer Varieties Registration Framework, which is now forming an important evidence-based foundation for the national Seed Policy formulation. In Zambia, 4 key policy discussion platforms were supported, comprising awareness raising on Seeds and Plant Breeders' Rights (PBR) Bills and Seed Policy among Parliamentarians and communities in the MASAP districts.

Both Zambia and Zimbabwe have shown increased policy support for MASAP's goals. The African Union Steering Committee has adopted a framework supporting farmer-developed seed varieties promoted by MASAP. In Zimbabwe, through the participation of the Ministry of Lands, Agriculture, Fisheries, Water and rural Development (MLAFWRD) and other key stakeholders MASAP, has developed an issues paper which will provide the basis for the formulation of policy and regulations for the registration of farmer varieties. National ministries, crop breeding departments, and genetic resource institutes in both Zambia and Zimbabwe are fostering collaboration among government, private sector, civil society, and farmers. This has led to the establishment of the National Seed Analysis Working Group in Zimbabwe. While Zambia has made strides in integrating SHFs into commercial markets,

Zimbabwe's policy environment requires more targeted reforms to address agricultural financing gaps, promote market inclusion, and enhance climate resilience.

A broader range of policy options has been discussed at a workshop in Harare on 19th June 2025 to come up with other relevant policies and legislation that have an impact on the targeted traditional grains and legume value chains, with a view to drawing insight and actionable recommendations for Phase II.

Output 3.3: Strengthened government institutions and private sector in relation to seed, crop diversification and participation of women, youths and disadvantaged groups in the small grain and legume value chains

The project, in Zimbabwe, successfully established 8 active innovation platforms on small grain and legume value chains, bringing together government institutions, the private sector, and communities, while Zambia established 7. These platforms are vital conduits for knowledge sharing, innovation, and market integration, directly addressing local climatic, production, and market challenges. Both Zambia and Zimbabwe fully achieved their target for promoting and technically supporting diversified small grains and legume seed production initiatives among smallholder farmers.

2. Information on the efficiency of the project based on an approximate analysis of the relation inputs/outputs and budget/expenditures with explanatory statement in case of significant deviation from the budget

The project Intervention was cost-effective with a CHF 0.63/kg yield increase, which is low, indicating efficiency. (Refer to Appendix 2). The project was 103% efficient in budget usage (it spent slightly less than planned), and there were no significant deviations from the planned budget.

4 Lessons learnt

This chapter resumes the main lessons learnt during the implementation of the project in this phase [during the whole project/programme period]:

Thematic Approach and Innovations:

The project's thematic approach, focused on promoting climate-resilient crops in marginalised agroecological zones, effectively complemented government food security initiatives in both Zambia and Zimbabwe. This alignment significantly increased implementation support from governmental bodies like the Ministry of Agriculture (Zambia) and MoLAFWRD (Zimbabwe), alongside other district authorities. In Zimbabwe, MASAP's alignment with the National Development Strategy 1 (NDS1) by promoting traditional grain production through private sector contracts and industrial devolution through village-based business units (microenterprise and innovation fund groups evolving into CBOs) proved particularly beneficial.

However, a critical lesson from Component 1 is that the mere distribution of seed in nutritionally depleted soils compromised production and productivity. This underscores the imperative for enhanced capacity building and promotion of climate-resilient technologies to improve soil health and boost productivity. Farmers need to shift from the perception that traditional grains yield results even in poor conditions. Farmer Field Schools (FFS) have emerged as a vital vehicle for extensively promoting and sensitising farmers on diverse agroecological and climate-smart techniques, as well as other productivity-enhancing strategies for rapid adoption and learning.

The 2023/24 growing season was severely impacted by an El Niño-induced prolonged dry spell, leading to partial or complete crop failure. While MASAP's crops are predominantly rain-fed, Phase II will facilitate training and mentorship in irrigated agricultural production and water harvesting techniques to enhance farmer resilience to climate risks. Intensified promotion of early-maturing and rosette virus-tolerant varieties (e.g., MGV 8 and MGV 9) will continue. In Zimbabwe, MASAP is collaborating with seed companies to register Zambian groundnut varieties to increase their availability to smallholder farmers and promote early-maturing, drought-tolerant, and disease-resistant varieties.

Partnerships and Communication:

Early contracting of IP is crucial to allow them sufficient time to engage farmers and prepare for the season well in advance, aligning with farmers' rational land allocation decisions. MASAP has established an end-of-August deadline for IP engagement to ensure timely farmer contracting. The provision of catalytic grant funding served as a de-risking mechanism, encouraging IPs to experiment with new business models, such as contracting smallholder farmers previously perceived as risky. Technical assistance in internal control systems significantly strengthened IPs' internal capacity for financial control and reporting.

However, misalignment of objectives, risk appetite, and short-versus long-term thinking can strain partnerships between private companies and development projects like MASAP. This necessitates substantial investment in partnership building and continuous monitoring for prompt corrective measures. The absence of insurance products for inputs resulted in significant losses during the 2023/24 season, requiring additional investment through the drought mitigation strategy. A key learning is the failure to harness financial service providers or design alternative funding mechanisms beyond grants, which constrained IPs' access to sustainable funding sources. In Phase II, MASAP will engage financial intermediaries like the Zambia Industrial Commercial Bank (ZICB) in Zambia and the Zimbabwe Agricultural Development Trust (ZADT) in Zimbabwe to develop suitable financing packages for IPs and farmers, aiming to catalyse and de-risk investments and strengthen agricultural value chains.

Innovation and Harmonisation:

Regarding Component 2, while agro-processors understand climate change risks to supply chains, long-term investments without short-term gains are challenging in a for-profit environment. There is a critical need for a mindset shift among companies to invest in climate-smart agriculture (CSA) innovations that help farmers adapt while securing supply chains. The project will explore the feasibility of agro-insurance for farmers and IPs as a risk mitigation measure.

For Component 3, facilitating MASAP district farmers and stakeholders to visit existing festivals in neighbouring districts proved an effective orientation for launching their own local festivals. This approach will be considered for new districts in Zimbabwe during Phase II, with district traditional food and seed festivals integrated into Component 1 for greater alignment. Introducing Market Day initiatives at district festivals, with expansion at the national level, can enhance their role in stimulating seed and commodity business around small grains and legumes, building on the 2024 Harare national festival pilot.

Farmer Research Teams (FRTs) at FFSs or Producer Groups are pivotal for developing contextual solutions and integrating indigenous knowledge systems (e.g., on climate and seed storage). These FRTs, along with local stakeholder discussion forums, will be strengthened in Phase II. Some field demonstrations on improved agronomic practices in Zimbabwe failed due to prolonged droughts, highlighting the need to strengthen climate resilience within all Phase II practices and interventions. Given considerable aflatoxin contamination, Phase II will continue innovative research on reduction during production and post-harvest. Improvements in seed storage facilities at public institutions like CBI are necessary to ensure the quality of Early Generation Seed (EGS) and mitigate issues like low germination levels. Finally, the low consumption of small grains and cowpeas underscores the importance of innovating in food preparation and nudging communities to promote increased consumption of these nutritious crops in Phase II. Crucially, the three components must work more closely in Phase II to ensure better alignment, sharing of findings, and their incorporation into interventions, alongside wider dissemination of research findings. Utilising existing "best practice" non-MASAP sites on climate-resilient practices as training centres and strengthening collaborations with SKI partners (e.g., RESCOPE, PORET, PELUM, ZAAB) for water harvesting, soil conservation, and farmer-managed seed systems (FMSS) will be prioritised in Phase II, requiring robust coordination for successful and lasting engagements.

Component 1 - Challenges and Mitigation:

Significant challenges faced were the **late signing of sub-award agreements with IPs** during the 2022/23 season, leading to late distribution of inputs, and the protracted El Niño-induced poor seasonal quality in the 2023/24 season, resulting in low productivity. To counter this, the project supported SHFs through the IPs' **El Niño Recovery Plan**, ensuring the early distribution of drought-tolerant seed varieties as early as September to facilitate enhanced farmer planning and resilience.

Another difficulty was the **side-selling of seed and commodities by SHFs** due to late procurement by contracting companies. To mitigate this, the project assisted companies in developing comprehensive contracts with all contracted SHFs and conducted **contract farming management trainings** to ensure both parties fully understood the terms and

conditions. Furthermore, the project increased support for **extension services and technical guidance** through IPs, enhancing the monitoring of harvested produce.

The **low adoption of small grains (Sorghum and Pearl Millet) and Cowpeas** in Zambia persisted due to the unavailability of viable markets, leading to farmers' reluctance to cultivate these targeted crops. In response, the project actively **identified and linked SHFs with companies that process small grains and cowpeas**, thereby creating a structured outgrower scheme to stimulate demand and market access.

Component 2 - Challenges and Mitigation:

Some potential IPs, particularly larger seed houses, showed **reluctance to operate in project sites**, citing poor agronomic conditions and a lack of irrigation facilities as disincentives for de-risking contract farming with SHFs. The project addressed this by promoting **drought-tolerant seed varieties and other resilience practices**. For Phase II, MASAP will also consider **additional districts with more favourable agronomic conditions** to attract a broader range of companies.

Late procurement and distribution of inputs in Years 1 and 2 significantly affected productivity, largely attributed to delays in IP contracting and fund disbursements. By Year 3, improvements were made, with **timely onboarding of IPs, farmer contracting, and input distribution**, demonstrating enhanced project cycle management.

IPs also faced challenges in securing sufficient raw materials due to the **2023/24 drought season**, which impacted the recovery of input loans from farmers (necessitating debt write-offs) and led to reduced capacity utilisation and in some cases, complete cessation of processing for months. MASAP responded by developing a **Drought Mitigation and Recovery Plan** to provide IPs with critical input support funds.

The **high cost of funds for working capital and capital expenditure** stifled IPs' growth plans and investments. MASAP Phase II is designed to address this by **subsidising the costs of funds and developing suitable financial packages with the financial services sector**. Efforts are also being made to commercialise the cowpea value chain, which has limited commercial value despite its food security benefits. The project is exploring strategies to incentivise interested players and engage stakeholders for value chain development, potentially drawing lessons from countries like Botswana and Namibia.

In Zimbabwe, the **hyperinflationary environment and local currency trading** severely affected the liquidity and financial performance of IPs, leading some to halt supply to main retail chains. Companies like Buntu Foods adapted by strategically supplying smaller shops that offer immediate USD payments to maintain business continuity.

Component 3 - Challenges and Mitigation:

Component 3 activities experienced a **delayed start, only commencing in MASAP Year 2**, as initial focus in Year 1 was on season-sensitive and production-related interventions. The need for **extensive policy and regulatory consultative processes** to ensure government and stakeholder inclusivity, coupled with limited public policy awareness and the demand for credible evidence, requires substantial resources and longer contractual periods for MASAP Policy Strategic Partners (SPs) and Action Research in Phase II.

Despite these challenges, MASAP will continue its collaboration with the three existing universities and UNZA in Zambia, aiming to **strengthen research capacity** on small grains and legumes. Regular exchange between academic institutions and Policy SPs (CTDO and CTDT) has proven vital for cross-learning and aligning activities with MASAP objectives, a practice that will be maintained in Phase II.

Adaptations of the Theory of Change:

While the overarching impact hypothesis and theory of change **have remained consistent** throughout this phase, specific **implementation strategies were adjusted** in response to unforeseen environmental challenges. The recurrent drought, particularly during the 2023/24 agricultural season, necessitated adaptive measures to ensure continued farmer resilience and project effectiveness.

The primary strategic adjustment involved the **implementation of a farmer debt cancellation program**. This was a direct response to widespread crop failure and significant seed loss caused by the severe drought. The implication of this adjustment was to alleviate immediate financial burdens on smallholder farmers, preventing further impoverishment and enabling them to recover and participate in subsequent planting seasons without crippling debt. This measure was critical for maintaining farmer engagement and ensuring the viability of the agricultural value chains supported by the project, thereby indirectly safeguarding the project's long-term outcomes without fundamentally altering the core logic of how change is expected to occur.

Conclusions for the next phase:

Component 1:

Enhancing Smallholder Farmer Resilience and Productivity

For the upcoming phase, a significant emphasis will be placed on the **promotion of climate-resilient technologies** aimed at improving soil health, nutrient content, and overall productivity. This is crucial for boosting smallholder farmer (SHF) household incomes and will be a central focus of Phase II.

Producer associations and Community-Based Organizations (CBOs) are vital for strengthening the linkages between SHFs and the private sector. We've observed a positive trajectory in these relationships, and continued mentorship will be essential to ensure win-win contract negotiations and facilitate easy access to efficient processing technologies. This progress needs further consolidation for long-term sustainability.

While positive movement towards value chain adoption has been experienced, a stronger focus on the **consumption and utilisation of crops** is required. This will involve initiatives such as cooking clubs, food processing activities, seed fairs, and traditional food festivals within Farmer Field Schools, with an emphasis on introducing diverse recipes using locally produced resources.

Component 2:

Scaling Business Models and Financial Linkages

Phase I successfully tested and 0.

Demonstrate3

.3d the potential of the implemented business models to benefit both SHFs and the entire value chain. In the next phase, we need to consolidate these achievements, help current IPs scale up their operations, develop new products, and increase their market share.

The recurrent droughts significantly impacted IPs' ability to meet expected targets and outputs during the review period, leading to tight cash flows. Despite these challenges, IPs demonstrated remarkable resilience. Moving forward, we will **explore new areas with better agronomic conditions** to mitigate future climatic risks.

With above-average expected yields in traditional grains for the 2024/25 season, IPs' capacity to procure raw materials from contracted farmers will be thoroughly tested. Their processing capacity is anticipated to increase substantially with the improved availability of raw materials. Beyond catalytic grants, **stronger linkages between IPs and financial service providers** are crucial to unlock necessary financial resources for both working capital and capital investments, ensuring their sustained growth and stability.

Component 3:

Enhancing Seed Systems and Farmer Resilience

While access to quality **sorghum and pearl millet seeds remains a challenge** due to drought-depleted reserves and poor germination in some certified groundnuts, MASAP studies show that **farmers can maintain high seed quality using simple methods like hermetic bags and cow dung ashes**. This highlights a crucial area for future intervention: promoting and scaling these cost-effective preservation techniques. Farmer Field Schools (FFS) have proven highly effective in **fostering co-learning and innovation** and will remain a key vehicle for knowledge dissemination. Policy gaps, including the **absence of a legal framework for farmer varieties and managed seed systems**, must be addressed by governments to support the majority of smallholder farmers who rely on farm-saved seed.

Strengthening Market Participation and Financial Resilience

Despite challenging drought conditions, **MASAP farmers consistently earned higher incomes**, demonstrating the value of structured market access. However, **market access and price transparency need further strengthening** to maximise farmer benefits. Producer groups have proven effective in empowering farmers to engage with markets, underscoring their pivotal role. For climate resilience, while agro-insurance holds promise, the next phase will **focus on insuring agro-inputs for contract farming** as a more sustainable risk mitigation strategy, given the challenges in sustaining farmer premium support beyond project cycles.

Addressing Nutritional Gaps and Social Vulnerabilities

Scientific research confirms the **high nutritional value of sorghum and millets**, but also identifies **concerning levels of aflatoxin contamination and microbial hazards**, emphasising the critical need for continued research into

contamination reduction during production and post-harvest. Crucially, studies revealed that **climate change disproportionately impacts women and girls** due to existing inequalities, necessitating integrated gender-responsive and social protection measures, such as food programs and school fee assistance, in future programming. While MASAP interventions improved food security and dietary diversity, severe droughts partially eroded these gains, underscoring the **paramount importance of sustained support and integrated climate resilience strategies** in volatile climates.

5 Exit strategy and Scaling up

During Phase 1, MASAP has laid a formidable foundation for replicability and scaling, reaching a commendable total of 30 IPs engaged across both seed and commodity value chains for supported crops in Zambia and Zimbabwe. This expansive reach, despite two seasons severely impacted by drought, which decimated crops and burdened farmers with input debt, underscores the project's resilience and initial success in establishing critical linkages.

However, the adversities faced have also illuminated crucial areas requiring strategic intervention to truly unlock the full potential for scale and sustained replication. Firstly, the project recognises the urgent need to introduce a robust inputs insurance scheme. This mechanism is paramount to safeguarding both IPs and Smallholder Farmers (SHFs) against future climatic shocks, ensuring their recovery, and, critically, empowering IPs to confidently source additional inputs for subsequent seasons without the spectre of overwhelming debt. This insurance will de-risk the value chain, fostering a more secure environment for expansion, especially important for high-value seed production..

Secondly, a significant challenge has emerged in IPs' ability to access affordable finance for working capital and, most critically, for buyback operations post-harvest. The absence of sufficient and timely finance directly impedes their capacity to sustain and expand their engagement with farmers. Therefore, a core requirement for Phase 2 is the meticulous crafting of interventions specifically designed to address these financial bottlenecks. By facilitating access to appropriate financial instruments, MASAP will empower IPs to consistently replicate and scale the successful models and support they have received, ensuring the continued flow of benefits to a wider farming community.

Looking ahead to Phase 2, the vision for scaling is ambitious and well-defined. In Zambia, the focus will be on a responsible phase-out to ensure sustainable scaling up of the investments made under MASAP Phase I. In Zimbabwe, the project will actively seek out new IPs, expanding its operational footprint into two additional districts. This strategic geographic expansion will leverage the lessons learned and established frameworks from Phase 1, bringing MASAP's impactful interventions to a greater number of vulnerable communities. Furthermore, this expansion will grant seed companies access to highly productive districts for seed multiplication, concurrently reducing their risk profile. Crucially, the project will champion interventions aimed at formalising partnerships between public breeders and private seed companies in Early Generation Seed (EGS) production. This institutional strengthening is vital for ensuring a consistent, high-quality supply of foundational seed, which is the bedrock for sustainable agricultural growth and large-scale adoption of improved varieties.

In sum, Phase 1 has successfully demonstrated MASAP's ability to establish a broad network of partners and deliver impactful support even in challenging climatic conditions. The next phase, however, necessitates targeted, strategic investments in financial de-risking mechanisms, enhanced access to affordable finance for IPs, and the formalisation of key public-private partnerships in seed system development to truly realise the envisioned, transformative scale and replicability of the MASAP approach.

Appendix

- 1. Logframe or results framework (including comparison between planned and achieved).**
- 2. Cost-Effectiveness Analysis**

List of abbreviations

