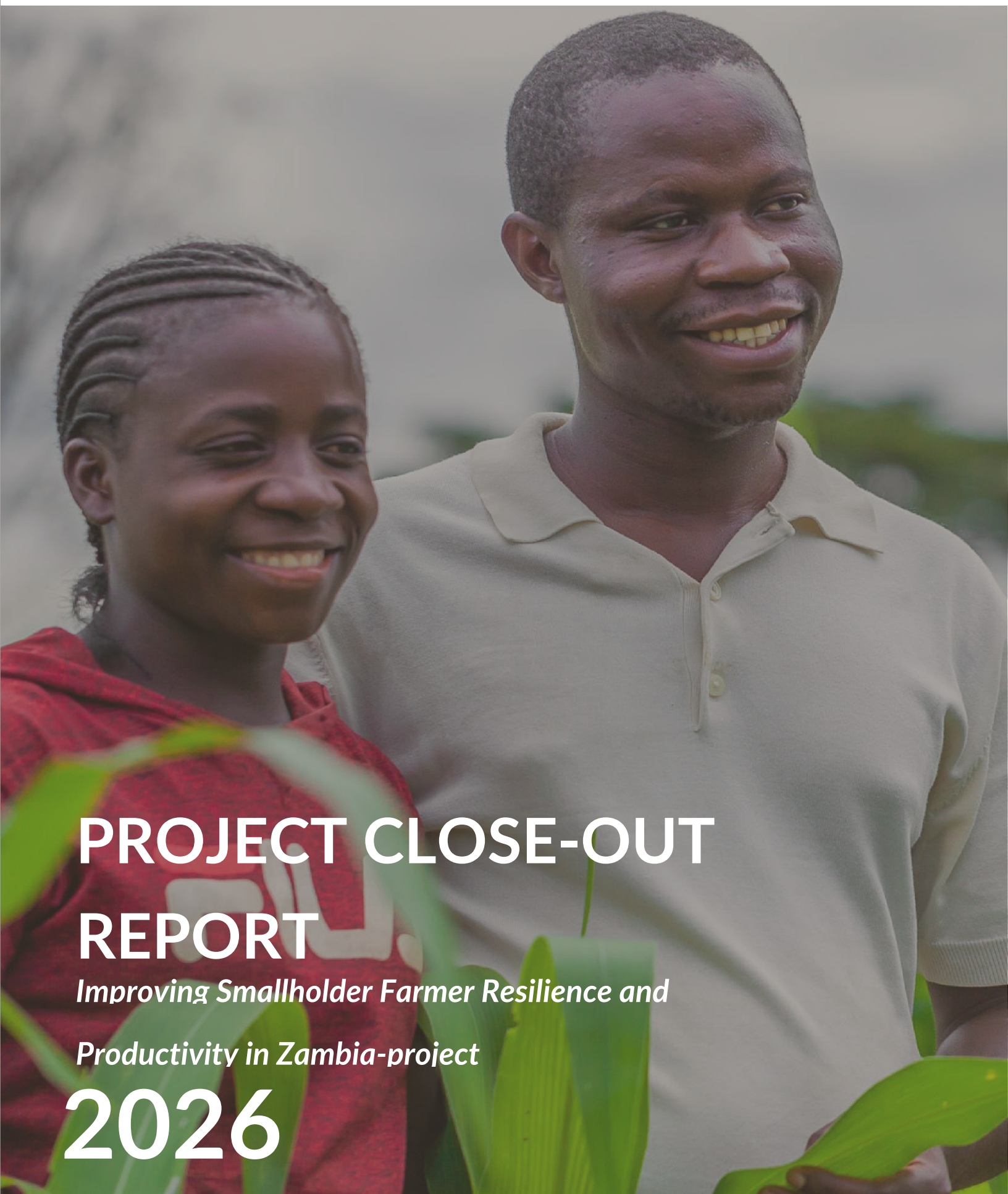

PROJECT CLOSE-OUT REPORT

Improving Smallholder Farmer Resilience and Productivity in Zambia-project

2026

About FSD Zambia Zambian

Financial Sector Deepening Limited (FSD Zambia) is a Zambian organisation working closely with key players throughout the economy to ensure that all Zambians are financially healthy, particularly the most excluded and underserved. We help rural families, women, youth, low-income people, and other households in Zambia to understand and access a wide range of sustainable, comparable and affordable financial services. To expand financial inclusion, we collaborate with both public and private sector institutions to make financial markets work better. FSD Zambia enhances trust between clients and suppliers of financial services by increasing their understanding, expanding innovation, and lowering costs. Over the years, FSD Zambia has benefited from the active financial support of several development partners, including UK Aid, Swedish Sida, Comic Relief/Jersey Overseas Aid, and the Rural Finance Expansion Programme (RUFEP). While some of these partnerships have since concluded, they played a significant role in supporting FSD Zambia's work. More information is available on our website, www.fsdzambia.org.

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Author: Analytics and Program teams

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ACRONYMS

AYII	Area Yield Index Insurance
CCE	Crop Cutting Experiment
DAZ	Dairy Association of Zambia
FCDO	Foreign, Commonwealth and Development Office
FISP	Farmer Input Support Programme
FSD Zambia	Financial Sector Deepening Zambia
ICIS	Inclusive Crop Insurance Scheme
ILIP	Inclusive Livestock Insurance Pilot
JOA	Jersey Overseas Aid
MCC	Milk Collection Centre
MFI	Microfinance Institution
MRM	Monitoring, Results and Measurement
NUSFAZ	National Union of Smallholder Farmers of Zambia
PICZ	Professional Insurance Corporation Zambia
PIA	Pensions and Insurance Authority
PPP	Public–Private Partnership
QPM	Quarterly Progress Meeting
SHF	Smallholder Farmer
ToC	Theory of Change
ZCF	Zambia Cooperative Federation

EXECUTIVE SUMMARY

Smallholder farmers are central to Zambia's agricultural economy, contributing 60–70% of staple food production and supporting livelihoods for over 60% of the population. However, they face increasing exposure to climate-related shocks, including droughts, floods, pests, and livestock disease outbreaks, while lacking effective tools to manage these risks. The 2023/24 farming season, the worst drought in over 40 years, highlighted these vulnerabilities, affecting more than nine million people nationwide. Historically, agricultural insurance has failed to adequately respond to smallholder needs due to systemic constraints across the market: Insurers lack viable and relevant products, distribution channels have been weak, and technology systems have often been poorly adapted to rural realities, while farmers have had low trust and limited understanding of insurance. Although various stakeholders have made efforts over time to address these constraints, they remain significant barriers to inclusive agricultural insurance. As a result, many farmers continue to rely on informal coping mechanisms or post-shock assistance, reinforcing cycles of vulnerability, underinvestment, and ultimately deep-rooted poverty

Since 2014, FSD Zambia has successfully managed to work with various market players and stakeholders to extend agriculture insurance to Zambian smallholder farmers. From 2021-2025, FSD Zambia with support from Jersey Overseas Aid (JOA), implemented the Improving Resilience and Productivity of Smallholder Farmers in Zambia Project in partnership with Professional Insurance Corporation Zambia Plc, Mayfair and Hollard Insurance. The objective of this project was to improve and increase access to appropriate, affordable and comprehensive agricultural insurance products and strengthen climate resilience for smallholder farmers.

Two complementary interventions were implemented: the Inclusive Crop Insurance Scheme (ICIS), centred on Area Yield Index Insurance (AYII), and the Inclusive Livestock Insurance Pilot (ILIP), introducing a multi-peril livestock insurance product for smallholder farmers. FSD Zambia facilitated capacity building of insurance companies to design and deliver Area Yield Index Insurance and Multiperil Livestock Insurance products specifically designed for smallholder farmers in Zambia, where 1,862 smallholder farmers have since benefited, representing 62% of the target. Insurance companies have since adopted these products as part of their portfolio and will continue raising awareness to sustain demand among smallholder farmers, demonstrating a systemic change in the market. On the demand side, the project responded to the early challenge of low awareness and minimal demand for insurance among smallholder farmers. Sustained awareness-raising activities helped close the knowledge gap on how insurance functions and its benefits, leading to a noticeable increase in farmers' willingness to enroll and demand insurance services.

The project encountered structural, operational, regulatory, and trust-related barriers that limited uptake and scale. Weak capacity within local structures undermined the effectiveness of project

implementation. Persistent digital platform failures due to poor connectivity and system integration challenges forced reliance on manual processes, increasing inefficiencies and costs. Particularly late product approval by the Pensions and Insurance Authority (PIA), slowed rollout and reduced market momentum. Low farmer confidence driven by perceptions of inadequate payouts and limited transparency in yield assessments and claims decisions reduced willingness to participate. Together, these challenges constrained scalability.

The project highlighted several key lessons for inclusive agricultural insurance programming. Trust and transparency are as important as sound product design, as farmers need clear and timely information on yield assessments, claims, and payouts to maintain confidence. Achieving scale depends on strong, functional local structures, as weak or non-operational ones limit uptake. While digitisation can lower costs and improve transparency, it is only effective when tailored to low-connectivity rural settings and introduced in phased, context-appropriate ways. Furthermore, relying too heavily on a single delivery partner creates bottlenecks, underscoring the need for complementary delivery channels. Farmer adoption is driven more by visible value such as seeing peers receive timely payouts than by awareness efforts alone. Finally, affordability, premium timing, and alignment with farmers' cash flows are critical, reinforcing the importance of flexible payment options, realistic scale expectations, and longer-term, learning-oriented support rather than rapid expansion in high-risk, low-income agricultural contexts.

Looking ahead, future programming should prioritize depth of system change over rapid scale, anchor distribution in proven transaction-based channels such as MFIs and agribusinesses and deliberately leverage established community-based structures including mature savings groups, cooperatives, or other trusted informal or social networks while adopting phased, context-appropriate digital solutions. Targeted and flexible subsidies will remain necessary in the medium term but should be explicitly linked to learning, demonstration effects, and transition pathways toward commercial sustainability. Building on the institutional capacity and emerging market momentum generated, future interventions are better positioned to crowd in private sector participation and sustain inclusive agricultural insurance beyond direct donor support

RESULT MATRIX

	Indicator	Baseline	Target	Achieved Result	Means of Verification
Impact	**Impact Indicator 1**: % of people with new or improved access to basic goods (food) or services	0	50%	50% (100% achieved against target)	End of project evaluation
	Impact indicator 2: Average household income (GBP)	55.68[1]	75.68	84.97 (111% achieved against target)	End of project evaluation
	Impact Indicator 3.1: % of people better able to adapt to climate change as a result of FSD Zambia support	0	50%	62% (124% achieved against target)	End of project evaluation
	Impact Indicator 3.2: % of people reached by the crop and livestock insurance who are women	0	50%	52% (104% achieved against target)	End of project evaluation
Financial Inclusion (Long term outcomes)	**FI Outcome Indicator 1.1:** % of adults financially included in Zambia the intervention areas disaggregated by gender	0	65%	81% (124% achieved against target)	End of project evaluation
	FI Outcome Indicator 1.2: % of individuals with improved usage of financial services Disaggregated by: Gender, Type of financial service	0	50%	58% (116% achieved against target)	End of project evaluation
	FI Outcome Indicator 2.1: # of access points per 10,000 adults	0	10	This indicator will be updated using the GIS study. Due limited financial resources, this hasn't been done	N/A

[1] GBP 55.68 at a rate of GBP1=ZMW23.35 as an average rate for 2020 adopted from BoZ website. ZMW 1,300 was the recorded average income for FSD Zambia clients

	Indicator	Baseline	Target	Achieved Result	Means of Verification
	FI Outcome Indicator 2.2: % of adults with atleast one type of financial product or service Dissagregated by gender, type of product or service	0	18.7[2]%	33% (176% achieved against target)	End of project evaluation
	FI Outcomen Indicator 3: % of adults with high[3] financial knowledge	0	45%	62% (137% achieved against target)	End of project evaluation
Access	**Intermediate Outcome Indicator 1:** % of SHFs reporting having accessed and used digital platforms to pay insurance premiums	N/A	50%	Insurance payments were largely processed through conventional mobile money channels rather than through the developed digital platform. This was primarily due to technical glitches within the system that prevented users from transacting directly on the platform. As a result, while payments were completed, they were not captured within the platform's transaction records, which affected both the measured value and timeliness of payments processed digitally	End of project evaluation
	Intermediate Outcome Indicator 2.1: % of SHFs reporting to have accessed information on crop and livestock insurance through digital platforms and other media channels	0	50%	Access to information on crop and livestock insurance was primarily facilitated through television and, to a lesser extent, radio. The SMS-	End of project evaluation

[2] Adopted from the FinScope 2020, by averaging the %s for 9 products that include pensions, insurance, SGs, bank accounts, DFS, investment accounts etc.

[3] The percentage of adults (usually aged 18 years and above) who correctly answer a defined number of questions measuring understanding of basic financial concepts such as interest rates, inflation, risk diversification, savings, borrowing, and insurance.

	Indicator	Baseline	Target	Achieved Result	Means of Verification
				based digital dissemination channel was not fully utilized	
	Intermediate Outcome Indicator 2.2: Qualitative feedback from SHFs on the extent to which available market information helped them to make informed decisions on uptake of crop and livestock insurance products	N/A	N/A	Qualitative feedback from smallholder farmers indicates that access to market information on crop and livestock insurance helped them make more informed decisions about whether to adopt these products. Many farmers reported that information shared through community meetings, trainings, and extension services improved their understanding of how insurance works, the risks it covers, and how premiums and payouts are managed	End of project evaluation
	Intermediate Outcome Indicator 3.1: # of SHFs using the crop and livestock insurance products	0	3,000	1,862 (1,729 crop and 133 livestock) 62% achieved against target	Monitoring reports
	Intermediate Outcome Indicator 3.2: Qualitative feedback from SHFs on the extent to which usage of crop and livestock insurance has helped with coping with climate change related risks	0	N/A	Qualitative feedback from smallholder farmers indicates that the use of crop insurance has helped households better cope with climate change–related risks, particularly drought and crop failure. Many farmers reported that insurance payouts helped them recover from losses without resorting to distress	Verification Report

	Indicator	Baseline	Target	Achieved Result	Means of Verification
				coping strategies such as selling productive assets or livestock	
Market System Change (MSC Output Results Areas	**MSC7 Output Indicator 7.1:** Value (ZMW) and timeliness of insurance payments transacted through the digital platform	0	No target	Insurance payments were largely processed through conventional mobile money channels rather than through the developed digital platform. This was primarily due to technical glitches within the system that prevented users from transacting directly on the platform. As a result, while payments were completed, they were not captured within the platform's transaction records, which affected both the measured value and timeliness of payments processed digitally.	Verification report
	MSC7 Output Indicator 7.2: Qualitative feedback from insurers on the responsiveness of the digital insurance administration platform	0	No target	ICIS was partially implemented but not fully operational. The system functioned effectively for farmer onboarding; however, it failed to support the crop-cutting experiment component due to internet connectivity challenges, particularly in low-network areas. The claims module also did not perform as intended, mainly because of system failures. For livestock insurance, although the system was developed, it was not fully functional because integration between the developed platform	Verification report

	Indicator	Baseline	Target	Achieved Result	Means of Verification
				and the insurer's existing system was unsuccessful.	
	MSC6 Output Indicator 6.1: # of market actors (mobile money, distributors, insurers) delivering the crop and livestock insurance payments through digital platforms	0	8	8[4] (100% achieved)	Monitoring Reports
	MSC5 Output Indicator 5.1 Qualitative feedback from Insurers reporting reduced down time of the insurance admin platform	0	No target	Qualitative feedback from insurers indicates that downtime on the insurance administration platform was influenced by both technical and operational factors. While the ICIS onboarding module functioned effectively, the crop-cut experiment and claims modules experienced performance failures. One key reason was limited internet connectivity, particularly in rural areas where network coverage is weak; modules that required stable connections performed well in urban locations but failed in low-connectivity environments. In addition, intermittent system failures contributed to interruptions in platform availability. For livestock insurance, although the system was successfully developed, full deployment was constrained by integration	Verification Report

[4] MNOs- (Airtel, Zamtel and MTN), Fintechs-(Hobbiton and Zynle) and Insurance companies-(Mayfair,Hollard and PICZ)

	Indicator	Baseline	Target	Achieved Result	Means of Verification
				challenges. The insurer indicated reluctance to integrate with a third-party system due to previous experiences of fraud associated with similar integrations for another product. As a result, the platform could not be fully operationalized, contributing to reported downtime and limited functionality.	
	MSC4 Output Indicator 4.1:# of sensitization and awareness campaigns conducted	0	2	2[5](100% achieved)	Monitoring reports
	MSC3 Output Indicator 3.1: Consumer education materials available and distributed	0	2	6 (300% achieved;)-Consumer education activities conducted include; brochures, flyer, posters and field days with farmers	Monitoring reports
	MSC2 Output Indicator 2.3: Average value (ZMW) of premiums paid by SHFs	0	ZMW 500	ZMW 450	End of project evaluation
	MSC2 Output Indicator 2.2: Average number of agric products (livestock and crops) insured by SHFs	0	3	6 (cattle for livestock inusrance and maize, soyabeans, groundnuts, sunflower and cotton for crop insurance) (200% achieved against target)	3
	MSC2 Output Indicator 2.1: Qualitative feedback from SHFs on the affordability and appropriateness of the crop and livestock insurance products	0	No targert	Smallholder farmers generally perceived crop insurance as affordable and appropriate for managing climate risks, while livestock insurance was often viewed as less affordable due to	End of project evaluation

[5] 2 for livestock insurance (Radio show on South power FM in Southern Province and group based sensitization in Kalomo, Choma and Mazabuka districts of Southern Province; Crop insurance (Radio show on breeze FM in Eastern Province during the Ncwala tradition ceremony)

	Indicator	Baseline	Target	Achieved Result	Means of Verification
				higher premium costs per animal and limited understanding of the product.	
	MSC1 Output Indicator 1.1: # of market actors involved in the pilot of the crop and livestock insurance products	0	2	3[6] (150% achieved against target)	Monitoring reports
Outputs	**Output Indicator 3.1:** Appropriate consumer education materials on crop and livestock insurance developed	0	2	2[7] (100% achieved against target)	Monitoring reports
	Output Indicator 2.1: A designed and enhanced digital insurance admin platform in place	0	2	2[8] (100% achieved against target)	Monitoring reports
	Output Indicator 1.1. Appropriate and customer centric crop and livestock insurance products designed	0	2	2[9](100% achieved against target)	Monitoring reports

- [6] 1 livestock (Mayfair) and 2 Inclusive crop insurance (Hollard and Professional Insurance). These insurance companies have been selected as key partners because of their vast experience in agricultural insurance
- [7] 2 (1 livestock for livestock insurance and the other crop insurance)
- [8] The 2 digital insurance platforms (1 livestock insurance and 1 crop insurance), though the platforms were not fully functional due to the reasons outline in the close out report
- [9] 1 livestock insurance and 1 crop insurance (Inclusive livestock insurance scheme-pilot and inclusive crop insurance scheme)

BACKGROUND AND PROJECT OVERVIEW

Introduction

The Improving Smallholder Farmer Resilience and Productivity in Zambia project was designed to catalyse a more inclusive and resilient agricultural insurance market for smallholder farmers by addressing systemic barriers such as limited product relevance, high costs, weak delivery channels, information gaps, and low trust. Smallholder farmers, who produce 60–70% of Zambia's staple foods and support livelihoods for over 60% of the population, face increasing exposure to climate-related risks including drought, floods, pests, disease outbreaks, and livestock losses. Traditional coping mechanisms and government-supported interventions, such as the Farmer Input Support Program (FISP), have been insufficient. While FISP reaches just over 1 million smallholder farmers, the Ministry of Agriculture reports that over 3.5 million registered smallholders nationwide, leaving the majority without structured risk protection. Moreover, FISP's insurance support is typically limited in scope, covering only subsidized inputs rather than comprehensive climate or livestock risks, leaving farmers vulnerable to catastrophic losses. The 2023/2024 drought, the worst in 40 years, further highlighted the urgent need for inclusive, climate-responsive risk mitigation tools beyond the scale and depth of FISP.

Project Objectives

The project's goal was to improve and expand access to high-value, comprehensive agricultural insurance products and enhance climate resilience solutions for smallholder farmers in Zambia by October 2025. The project was implemented as a public-private partnership (PPP) using a market systems development approach, combining smart subsidies, financial education, piloting, and continuous learning to enhance commercial viability, scalability, and sustainability.Targeting 3,000 farmers engaged in crop production and cattle rearing (revised from an original target of 130,000), the project supported farmers to better understand agricultural insurance, its benefits, and access processes, thereby increasing trust and willingness to pay. Insurers were supported with client-centric product design, actuarial guidance, underwriting support, and digital tools to expand coverage beyond limited, ad hoc products. Government institutions, through the Ministries of Agriculture and Livestock and Fisheries, actively participated outside FISP, contributing data, verifying claims, and improving coordination with private actors. Technology providers were assisted with grant funding in implementing digital administration systems and mobile-based payment platforms, though end-to-end digitization was not achieved within the project period. Farmer cooperatives and aggregators were strengthened as distribution channels to facilitate market linkages and communication with farmers.

Despite these interventions, challenges including affordability constraints, trust deficits, weak cooperative distribution, and operational bottlenecks meant that the target of 3,000 farmers was not fully met, with 1,729 crop farmers and 133 livestock farmers ultimately insured.

Primary beneficiaries included the farmers reached, encompassing men, women, and youth, with secondary beneficiaries comprising insurers, MFIs, cooperatives, and agricultural extension officers whose strengthened capacity improved service delivery. Key partners and stakeholders were Hollard Insurance, Professional Insurance Company Zambia (PICZ), and Mayfair Insurance; farmer aggregators such as Zambia Cooperative Federation (ZCF), National Union of Smallholder Farmers of Zambia (NUSFAZ), Dairy Association of Zambia (DAZ), and Mulimi Farmers Scheme; financial service providers including Vision Fund and Indo-Zambia Bank; government institutions through the Ministries of Agriculture and Livestock and Fisheries; technology partners CelsiusPro, Zynle Technologies, and Hobbiton Technologies; and development partners such as Plan International and World Vision. Through this PPP approach, the project enabled each actor to play their role more effectively, addressed gaps in both the scale and depth of FISP-supported insurance, generated actionable insights, strengthened market coordination, and laid a foundation for sustainable, market-driven agricultural insurance, despite implementation challenges.

PROJECT INTERVENTIONS AND IMPLEMENTATION

To address the challenges highlighted above, FSD Zambia, with support from Foreign, Commonwealth and Development Office FCDO and later Jersey Overseas Aid (JOA), introduced the Inclusive Crop Insurance Scheme (ICIS) to promote access to Area Yield Index Insurance (AYII) among smallholder farmers. The project also introduced a livestock insurance product to provide climate-risk protection for livestock farmers. The sections below provide a detailed description of each intervention, including planned activities, deviations, progress made, challenges encountered, and recommendations.

Inclusive Crop Insurance

The Inclusive Crop Insurance Scheme (ICIS) was developed to protect smallholder farmers against crop losses caused by climate-related and other unforeseeable risks, including drought, floods, pests, disease, and fire. The scheme was piloted during the 2020/21 farming season for maize, cotton, and soybean farmers in selected districts of Central and Eastern of Zambia.

Designed through a client-centric process with FCDO support, ICIS applies to the Area Yield Index Insurance (AYII) model, linking compensation to average area-level yield performance rather than individual farm losses. Further, AYII offers lower basis risk, broader risk coverage, greater farmer understanding, and stronger trust compared to weather index insurance. By linking payouts directly to area-level yield performance rather than weather parameters alone, AYII provided more intuitive, credible, and scalable protection for smallholder farmers in data-constrained environments. KM Dastur, an actuarial and reinsurance broking firm with decades of experience in Asia, Europe and Africa was engaged by FSD Zambia to lead the design of the product and provide technical support to the partner insurance companies under the project. The product was underwritten and co-insured by Hollard Insurance and PICZ. A digital platform was developed by CelsiousPro that integrated mobile money for enrolment, premium payments, Crop Cut Experiments (CCE) and claims settlement to improve efficiency, transparency, and scalability.

Strategic Outcome: Design and rollout Area Yield Index Insurance for smallholder farmers

Planned activities

- Evaluate and refine the Inclusive Crop Insurance Scheme pilot business model, based on the pilot year experience.
- Test and enhance the digitised insurance administration platform.
- Carry out sensitization and awareness campaign activities for SHFs on the ICISP and use of digital platforms for payments, with attention to women.
- Provide detailed financial education materials and events to ensure SHFs have a clear understanding of the insurance and how it works and can make informed choices as well as having access to financial service information and crop production materials.

- Support agriculture insurance premiums through smart subsidies on a declining scale over three years to stimulate uptake and usage.
- Track and continue enhancing the product and insurance platform, including potential addition of other crops and ongoing learning from client and insurance firm experiences.
- Incorporate digitisation through the platform and use of mobile money via cell phones for more information and interaction between insurers and farmers.
- Roll out and scale-up of insurance to 100,000 smallholder farmers from 2022/23 farming season through 2024/25 season

Actual activities implemented

- Based on experiences during the pilot of 2020/21 season, KM Dastur conducted an evaluation and refinement of the Inclusive Crop Insurance Scheme pilot business model.
- Testing and enhancement of the digitised insurance administration platform was an ongoing process. The initial digital platform was developed by CelciusPro, an Insurtech based in Switzerland. Early implementation was conducted remotely due to COVID-19 travel restrictions, which limited on-the-ground testing and affected performance in rural conditions such as limited connectivity and poor infrastructure. To address these challenges, a local developer, Hobbiton Technologies Limited, was later engaged to design a platform better suited to Zambia's context, enabling closer collaboration with insurers and more responsive system functionality.
- Throughout the project tenure, insurers with support from FSD Zambia conducted insurance awareness activities. These took the form targeted engagements with farmers' Savings Groups, training existing clients for downstream partners like Vision Fund, participation in traditional ceremonies and district agricultural shows and expos. Community radio stations were also used to reach farmers. Insurance clinics were conducted in 9 districts to educate farmers on the benefits of insurance and adoption of climate smart agriculture practices.
- With support from FSD Zambia, insurers were able to print materials in English and local languages to ensure SHFs have a clear understanding of the insurance product and comprehension of how it works to make informed choices. . The materials took the form of posters and brochures
- The project provided smart premium subsidies on a declining scale over four years. This approach was designed to address affordability constraints faced by smallholder farmers while preserving long-term incentives for commercial participation by both farmers and insurers.
- Annual evaluations of the Inclusive Crop Insurance Scheme (ICIS) were conducted at the end of each farming season by KM Dastur. A total of four (4) annual product and business model reviews were completed over the project period. Each review assessed product

design, pricing, uptake, claims experience, subsidy effectiveness, and operational efficiency across participating districts.

- Premium and claims payments were successfully digitised and delivered through mobile money; however, the planned use of mobile platforms for insurance information sharing and farmer engagement was not implemented due to persistent platform-related challenges experienced throughout the project tenure.
- Due to low farmer uptake encountered because of weak distribution channels, affordability constraints and low insurance literacy, the scale-up target was significantly revised downwards to 2000 under ICIS.
- Although not in the initial planned activities, as the number of target districts increased from 9 to 23 districts in Eastern, Copperbelt, Muchinga, Northern, North-Western, Central, Southern and Lusaka Provinces, it became necessary to train Crop Cutting Experiments (CCE) agents to speed up yield assessments in these districts.

Progress made

The Inclusive Crop Insurance Scheme (ICIS) made significant progress in improving smallholder farmer resilience to climate-related risks in Zambia. Over the project period, annual verifications led to refinements in product design, premium pricing, subsidy levels, and distribution arrangements, while expanding crop coverage from maize, soybean, and cotton to include sunflower, groundnuts, and beans, enhancing relevance and operational efficiency.

A digital insurance platform was developed and tested, with the underwriting module successfully operationalised, though claims and Crop Cutting Experiment (CCE) modules required manual processing due to connectivity challenges, generating valuable learning for future digital solutions. Multi-channel sensitisation, including public gatherings, clinics, community radio, and partnerships with Plan International, Mulimi, and Vision Fund improved farmer awareness, understanding, and trust, contributing to uptake. Collectively, the clinics successfully reached a total of 2,356 farmers, 1,162 being female and 1,194 males. Targeted training of Savings Group members reached 1,090 members, (80% women.)

Graduated smart subsidies supported 1,729 farmers, (40% women), enabling first-time adoption and informed learning on willingness to pay. Vision Fund partnerships facilitated insurance bundling with input loans. A total of K2,102,935 was paid in claims to farmers who suffered losses during the project tenure.

Local capacity was strengthened through the recruitment and training of 57 CCE agents across 24 districts, improving timely yield assessments and claims processing. Despite lower-than-anticipated scale-up due to affordability, awareness, and distribution constraints, the project

demonstrated effective strategies for sustainable agricultural insurance delivery, insurer participation, and farmer protection, providing critical lessons for future expansion.

Challenges

The implementation of the ICIS encountered multi-layered set of challenges that spanned product design, operational execution, market structures, and fundamental trust dynamics. These issues collectively constrained uptake, undermined sustainability, and revealed the complexities of scaling index insurance. Some of the challenges highlighted below are according to the field verification report of 2025.

Trust challenges: The most critical failure was the severe disconnect between farmer expectations and actual indemnity. Payouts as low as 12-23% of losses for example in Katete and Nyimba were deemed irrelevant, fostering a perception that insurance protected the lender (Vision Fund) first, not the farmer. In Mumbwa, the perceived broken payout promises led to legal disputes and a collapsed loan portfolio for the Vision Fund Branch. Farmers were not availed of CCE results and received no explanation for non-payouts in districts ineligible for pay outs, destroying credibility in the Area Yield Index model.

Despite sensitization, understanding of Area Yield Index insurance concepts, triggers, and the premium-payout relationship remained low, especially in remote areas. This limited voluntary, informed demand.

Operational challenges: While technically sound, operationalizing CCEs at scale proved resource intensive and logistically vulnerable. Challenges included agent capacity, transport, and coordination, slowing implementation and adding cost.

The digitization of insurance administration faced persistent problems. The platform had usability issues, and critical modules for CCE data upload and claims processing malfunctioned, especially in low-connectivity areas. This forced a reversion to manual processes, increasing administrative burden and error.

Bundling with Vision Fund's Lima Loan became a liability. Many farmers did not understand the insurance coverage scope, and when claims failed, they felt defrauded. Aggressive loan recovery especially after the drought compounded distress, turning insurance from a safety net into a source of conflict.

Structural & Market System Weaknesses: Insurers' reluctance to invest in human capital to grow their inclusive insurance portfolios also constrained effective implementation of ICIS. Staff assigned to the project were often overstretched, balancing inclusive insurance business alongside core commercial insurance business, limited their ability to dedicate sufficient time and focus to product development, distribution, and client engagement. This capacity gap slowed decision making and reduced implementation efficiency. The experience underscored that strong

management buy in including deliberate allocation of staff time, skills, and resources is critical to the successful design, rollout, and sustainability of inclusive insurance initiatives.

The strategy to scale via the Zambia Cooperative Federation (ZCF) and the National Union of Smallholder Farmers of Zambia (NUSFAZ) failed because their structures were largely nominal. Weak governance, limited mobilization capacity, and minimal influence over farmer decisions severely constrained outreach, necessitating a drastic scale-down from 100,000 to 2,000 farmers.

Even with smart subsidies of up to 60%, premium payment was a challenge. Post-COVID economic pressures, rising input costs, and low incomes meant farmers prioritized immediate needs like seed and fertilizer over insurance, slowing voluntary uptake.

The market remained dependent on project facilitation (subsidies, sensitization, technical support), highlighting the difficulty of transitioning to a fully commercial model in the context of low incomes and weak aggregation structures.

Inclusive Livestock Insurance Pilot (ILIP)

FSD Zambia, in partnership with Mayfair Insurance, with support from Jersey Overseas Aid, launched the Inclusive Livestock Insurance Pilot (ILIP) from 2022 to 2025. This initiative was designed to extend vital financial protection to smallholder livestock farmers, a group highly vulnerable to climate and disease-related losses.

Strategic Outcome: Successful Design and Rollout of the Inclusive Livestock Insurance Pilot (ILIP)

Planned activities

- Undertake market scoping (identification of pilot district areas, stakeholders, and service providers, including farmer profiling, along with potential links to other insurance), using feasibility study results.
- Complete client centric design consultation and validation workshops with potential SHF clients, engaging with insurers and distribution channels.
- Do product design, pricing, testing, and digitisation of information and product requirements. Includes engagement of related products for bundling options.
- Test and enhance the Animal Registration and Tracking System to include an insurance module for digitised insurance payments and awareness activties.
- Launch, mobilize, and enrol. Pilot indemnity-based livestock insurance to 1,000 smallholder farmers and 15,000 cattle by 2022 in one province of Zambia.
- Provide livestock insurance knowledge and financial education to at least 1,500 smallholder farmers by 2022.

- Assess and revise products to enable affordability, use of bundled products, viability for insurers and any agents. Revise product accordingly to improve uptake.
- Consult with offtakers and market purchasers to determine if they are willing to engage in bundling insurance for their supplier SHFs. If so, test this option.
- Sensitize smallholder farmers on the use of digital platforms for payments and potential use of bundled products.
- Observe and test whether this insurance, if bundled with crop insurance, is more viable.
- Complete regular and ongoing monitoring and evaluation of scheme.
- Undertake at least annual product/scheme enhancement, and expansion of coverage to 30,000 smallholder farmers by 2025.

Actual Activities Implemented

- Risk Shield engaged by FSD Zambia, conducted market scoping exercises to identify pilot districts, key stakeholders, service providers, and smallholder farmer profiles, drawing on feasibility study findings and assessing linkages with existing insurance products.
- Implemented client-centric design consultations and validation workshops with potential smallholder farmer clients, insurers, and distribution partners. Stakeholders included the Ministry of Fisheries and Livestock, Milk Collection Centers, Livestock Farmer Co-operatives, and Traditional Leaders.
- Risk Shield designed, priced, tested, and refined insurance the Multi Peril Livestock Insurance product, including digitisation of product information and requirements, and they also explored bundling options with related financial products.
- Tested and enhanced the Animal Registration and Tracking System to incorporate an insurance module supporting digitised premium payments and farmer awareness activities. This was conducted in Kalomo, Mazabuka and Choma where the Ministry of Fisheries and Livestock was also piloting digital registration of livestock by smallholder farmers.
- The product was officially launched in Mazabuka at Magoye Milk Collection Centre by the Minister of Fisheries and Livestock. Since the launch of the pilot, 133 farmers were fully insured with approximately 241 animals in both Southern and the Copperbelt Provinces.
- Mayfair Insurance in partnership with the Dairy Association of Zambia (DAZ) and Ministry of Fisheries and Livestock delivered livestock insurance awareness to smallholder farmers, reaching at least 2,074 beneficiaries by 2025 in Southern and the Copperbelt provinces.
- Rezil Consultants was engaged by FSD Zambia to assess and revise the insurance product to improve affordability, enable bundling, and enhance commercial viability for insurers and agents, leading to product adjustments to support uptake.
- Mayfair Insurance engaged Financial Service Providers such as Vision Fund and Indo Zambia Bank to assess willingness to bundle insurance with credit facilities. It has been

observed over time that bundling insurance with credit facilities improves the uptake of microinsurance products.

- Mayfair Insurance with support from DAZ, sensitised members of management of MCCs and smallholder farmers in Southern and Copperbelt Provinces on the use of digital platforms for premium payments using mobile money.
- FSD Zambia through its project and analytics teams, undertook regular and ongoing monitoring and evaluation of the insurance scheme to inform adaptive management and learning.

Progress made

The project made measurable progress in delivering and testing an inclusive livestock insurance model despite falling short of scale targets. A market-ready, multi-peril livestock insurance product was successfully designed using a human-centred design approach, underwritten by Mayfair Insurance, approved by the Pensions and Insurance Authority, and rolled out in selected districts.

During implementation, 133 smallholder livestock farmers (69 men and 64 women) were insured, covering 241 cattle with a total sum insured of K 3,342,000. Farmers paid K 143,520 in premiums, complemented by K 154,240 in premium subsidies, and K 108,000 was paid out in claims, demonstrating proof of concept and product functionality.

To support uptake, the project implemented a multi-channel sensitisation and education strategy, directly reaching 2,074 individuals through structured training for farmers, cooperative leaders, and veterinary assistants, complemented by printed materials, animal dipping days, and mass media outreach. While scale was constrained by regulatory delays, weak distribution channels, affordability challenges, and low trust in insurance, the activities generated critical learning on product design, farmer behaviour, trust-building, and delivery models, laying a strong foundation for future refinement and scale-up of livestock insurance in Zambia.

Challenges

Findings from the FSD Zambia field verification exercise revealed a distinct set of challenges affecting ILIP implementation.

Structural challenges: The Inclusive Livestock Insurance Pilot (ILIP) was constrained by weak and unreliable distribution structures, such as cooperatives, Milk Collection Centres (MCCs), and farmer organisations often lacked operational capacity, incentives, or clear mandates to serve as effective insurance delivery channels. Low and unstable livestock farmer incomes because of low livestock productivity further limited demand, making insurance a secondary priority despite awareness efforts. The delivery model was also structurally fragile due to heavy dependence on public systems, particularly government veterinary services. This created inherent vulnerabilities to staff transfers, resource shortages, and competing public-sector responsibilities.

In addition, delayed regulatory approval by the Pensions and Insurance Authority (PIA) of the product postponed product rollout by over four months, compressing the effective implementation window for enrolment, sensitisation, and trust-building, and ultimately limiting uptake.

Operational challenges: A critical operational bottleneck was the heavy reliance on a single government Veterinary Assistant (VA) per district, who was legally required to conduct animal pre-insurance inspections, verify losses, and certify claims. Frequent transfers, competing duties, lack of transport, and unavailability of VAs caused service interruptions, delayed enrolment and claims processing, and in some cases resulted in uncompensated losses.

Digitisation efforts achieved only partial success. Although the insurance module was integrated into the Animal Registration and Traceability System (ARTS), full integration with the insurer's core systems was not realised. This was largely due to the insurer's reluctance to integrate with a third-party platform, informed by prior experiences of financial losses linked to system fraud. As a result, the intended end-to-end digital workflow could not be implemented, and manual workarounds were required for farmer onboarding and policy issuance. These digital constraints were compounded by weak field coordination, inconsistent follow-up sensitisation of farmers, and limited branding and operational activation of Milk Collection Centres (MCCs), all of which further reduced overall delivery efficiency and effectiveness.

Trust-related challenges: Farmer trust was constrained by low confidence in insurance based on past negative experiences with delayed or unclear payouts in earlier schemes, creating skepticism toward the new product. Uptake was particularly low in areas without visible claims settlements, farmers waited to see peers benefit before enrolling. Misunderstanding of policy terms, especially, payout limits, uncovered ancillary costs such as veterinary callouts and carcass disposal, and perceived high premium rates led to dissatisfaction even when claims were paid. These factors weakened perceived value for money and reduced willingness to adopt the livestock insurance product on scale.

PROJECT OUTPUTS AND MARKET SYSTEM CHANGES

Outputs Achieved

The project delivered a set of significant outputs that will continue to support inclusive agricultural insurance beyond the project support period in Zambia. Under the Inclusive Crop Insurance Scheme (ICIS), an Area Yield Index Insurance (AYII) product was designed, piloted, refined, and institutionalised by two insurers, supported by four annual product and business model evaluations. Crop coverage was expanded from maize, soybean, and cotton to include sunflower, groundnuts, and beans.

Digital platforms facilitated the adaptation and usage of mobile money for premium and claims payments. Local capacity for yield assessment was strengthened through the recruitment and training of 57 Crop Cutting Experiment (CCE) Agents across 24 districts, creating a decentralised skills base that remains available to insurers in the market.

Under the Inclusive Livestock Insurance Pilot (ILIP), a market-ready, multi-peril livestock insurance product was developed using a Human-Centred Design approach, underwritten by Mayfair Insurance, approved by the PIA, and embedded within the insurer's product offering to smallholder farmers. The pilot insured 133 smallholder livestock farmers (69 men and 64 women), covering 241 cattle with a total sum insured of K3.34 million, supported by premium subsidies and verified claims payouts. These products, systems, trained agents, and learning tools constitute assets that remain in the market and can be reactivated or scaled without external design support.

Market System Changes Achieved

By addressing systemic constraints within the agricultural insurance market, the project contributed to significant market system changes that will outlive the project support period. On the supply side, through technical support facilitated by FSD Zambia, insurers developed inhouse experience and confidence in designing, pricing, underwriting, and administering inclusive crop and livestock insurance products. Product refinement processes, actuarial methodologies, and operational protocols established under the project are now embedded within participating insurers, enabling continued product offering and adaptation.

Distribution and delivery models were tested and diversified, particularly through bundling of insurance with credit by financial service providers such as Vision Fund, demonstrating a commercially relevant pathway for reaching smallholder farmers.

Supporting market functions were strengthened through investments in digital payments, decentralised yield assessment capacity, and improved coordination between insurers, financial institutions, and public-sector actors such as veterinary services. On the demand side, sustained sensitisation and visible claims payouts initiated longer-term shifts in farmer awareness, understanding, and trust in insurance critical to uptake beyond the project lifecycle.

3. Outcomes Achieved and Sustained

As a result of these outputs and market system changes, the project achieved outcomes that are expected to endure beyond the period of direct project support. Under ICIS, 1,729 smallholder farmers accessed crop insurance coverage, supported by smart, declining subsidies, with over K2.1 million paid in claims, providing real protection against climate shocks and establishing a track record of insurance performance. Under ILIP, insured livestock farmers experienced functional claims settlement, reinforcing confidence in livestock insurance as a viable risk management tool.

While scale targets were not fully met, the project delivered sustained outcomes in terms of institutional capability, farmer learning, and market readiness. Insurers remain positioned to continue offering and refining agricultural insurance products, trained agents and intermediaries continue to operate within the system, and farmers exposed to insurance have improved capacity to make informed risk management decisions. Collectively, these achievements create a credible foundation for continued uptake, private-sector investment, and future scale-up of inclusive agricultural insurance in Zambia beyond project support.

KEY LESSONS

Trust and transparency are as important as product design: Insurance uptake depends not only on technical soundness but also on farmers clearly understanding how and when benefits are triggered and paid.

Distribution capacity determines scale more than demand: Functional last-mile delivery systems are essential; nominal reach without operational capacity does not translate into uptake.

Digitisation must match rural realities: Technology can enable scale, but only if designed for low-connectivity environments and supported by appropriate devices and training.

Single-point dependencies undermine resilience**:** Delivery models that rely heavily on one actor or institution are vulnerable to disruption and require built-in redundancy.

Farmers adopt insurance when value is visible: Demonstration effects—seeing peers receive timely, meaningful payouts—are critical to driving voluntary uptake.

Geographic heterogeneity affects payout fairness**:** Some target districts were geographically large with heterogeneous rainfall and agro-climatic conditions. Within the same district, some farmers experienced above-average yields while others suffered poor harvests. Since AYII payouts are based on average area-level yields, farmers in lower-performing sections often received reduced or no compensation, even when their individual losses were significant. This highlighted a key limitation of using district-level aggregation for AYII in areas with variable production conditions.

Institutional resilience is critical during organisational transitions: The 2023 restructuring at FSD Zambia, including management changes, staff downsizing, and temporary activity suspension for audits; highlighted how internal transitions can slow decision-making, disrupt project continuity, and reduce field-level support. Embedding robust documentation, knowledge management, succession planning, and contingency protocols is essential to safeguard programme delivery during such periods.

SUSTAINABILITITY RISK MATRIX

Sustainability Factor	Risk Description	Likelihood	Impact	Mitigation / Recommendation
Farmer Engagement & Uptake	Low adoption of insurance by smallholder farmers due to trust issues, low literacy, and competing priorities	High	High	Continue financial education and awareness campaigns; leverage MFIs and cooperatives; bundle insurance with inputs or loans; highlight proven benefits from pilot programs.
Market Partner Capacity	Weak capacity of insurers, MFIs, and cooperatives to scale and deliver services independently	Medium	High	Provide ongoing technical support, training, and mentorship; establish performance-based partnerships; encourage digital solutions that reduce operational burden.

Sustainability Factor	Risk Description	Likelihood	Impact	Mitigation / Recommendation
Digital Platform Sustainability	Failures or inefficiencies in digital platforms (CCE, ARTS, claims, payments) reduce operational efficiency and farmer trust	Medium	High	Invest in robust, offline-capable systems; partner with local tech firms for continuous updates; train local agents to manage and troubleshoot platforms.
Government Support	Reduction in government facilitation, extension services, or veterinary oversight	Low	Medium	Maintain strong relationships with Ministries; embed insurance processes within existing government workflows; advocate for policy support.
Financial Sustainability	Insurers may find products commercially unviable without subsidies; premiums may remain unaffordable for farmers	High	High	Explore tiered or smart subsidies; promote bundling with loans and inputs; consider partial donor support for initial scale-up; pilot alternative financing mechanisms.
Future Funding & Donor Support	Lack of future funding may limit scaling to meaningful coverage	High	High	Engage inancing partners or ; develop a phased scale-up plan; document evidence from pilots to strengthen funding proposals.
Climate & Environmental Risks	Extreme events may affect yields	Medium	High	Refine product design and coverage periodically; integrate climate risk

Sustainability Factor	Risk Description	Likelihood	Impact	Mitigation / Recommendation
	and livestock beyond model assumptions			monitoring; provide complementary risk management tools and advisory services.

RECOMMENDATION

Prioritise transparency and farmer feedback loops: Ensure farmers are also availed with yield assessments reports, claims decisions, and payout calculations to build trust and accountability.

Anchor scale strategies in proven delivery channels: Support partnerships with MFIs, agribusinesses, off-takers, and active cooperatives that already transact regularly with farmers.

Adopt phased and hybrid digital solutions: Invest in offline-capable systems, standardised devices for field agents, and gradual automation rather than full digitisation from inception.

Diversify service delivery roles: Reduce reliance on single public actors by training community-based agents or accredited private providers to support enrolment and claims verification.

Align insurance payments with farmer cash flows: Promote flexible premium payment options such as instalments or deductions from produce sales to improve affordability and uptake.

Reduce coverage unit Areas in future AYII designs: Future AYII designs should consider reducing coverage areas to smaller, more homogenous units such as sub-districts or ward-level clusters where rainfall patterns and yield performance are more uniform. This would improve alignment between payouts and actual farmer losses, enhance trust in the insurance product, and make compensation more equitable.

Focus on learning-driven, adaptive market facilitation: Support longer-term engagement that allows testing, learning, and adaptation rather than short-term scale targets, especially in low-income, high-risk agricultural contexts.

Strategic catalytic donor support for scale: While the project successfully developed market-ready crop and livestock insurance products, strengthened delivery systems, and generated valuable learning, uptake remained limited and scale targets were not achieved due to affordability, trust, and distribution constraints. To achieve meaningful scale and sustainable impact, strategic catalytic donor support is recommended focused on targeted subsidies, strengthening reliable delivery channels, digital integration, and trust-building activities while leveraging the commercial incentives of insurers. This approach would enable broader farmer coverage, reinforce market

confidence, and create conditions for the private sector to sustain and expand inclusive agricultural insurance without ongoing donor dependency.

ANALYTICS

FSD Zambia's Analytics Department provided technical support to ensure the effective implementation of the project and alignment with the prescribed Theory of Change. This support included developing the monitoring and result measurement systems and updating key frameworks such as the logframe. In addition, the department promoted a culture of learning through monthly progress meetings to review project progress, as well as conducting verification and early warning assessments to identify and address emerging.

Planned activities

As part of the review of project implementation, the following MRM activities were planned: development of the M&E system, promotion of a culture of learning, conducting early warning and verification exercises, drafting annual project reports, and conducting the end-of-project evaluation.

Progress made on planned activities

MRM Systems Setup- Log Frame, Programme Theory of Change (Toc) and Intervention Results Guide: MRM team facilitated the development of the project's Theory of Change and Logframe in line with the donor's project requirements. This process involved clearly defining the project's intended outcomes, outputs, and key indicators, as well as establishing the causal pathways linking project activities to the expected results. The ToC and Logframe provided a structured framework to guide project implementation, monitoring, and reporting throughout the project period.

Culture of Learning (QPM): The MRM team continuously promoted a culture of learning throughout the project lifecycle by facilitating Quarterly Progress Meetings (QPMs) with all project programme teams, including implementing partners. These meetings provided a platform to review project progress, assess market systems changes for mature projects, and reflect on lessons learned during the quarter under review. The sessions also supported adaptive management by enabling teams to identify emerging challenges and make informed adjustments to project implementation.

Conduct early warning. The MRM team conducted early warning assessments to evaluate the extent to which the project was being implemented as planned, whether it was reaching the intended beneficiaries, and the challenges encountered during implementation. These assessments helped identify potential risks and implementation gaps early, enabling timely corrective actions and informed decision-making. One of the key findings from the early warning assessment was that clients had limited knowledge of insurance. As a result, a recommendation

was made to the project team to strengthen the existing programme awareness activities in order to improve clients' understanding of insurance products and their benefits.

Conduct Verification: The team also conducted verification exercises to validate project activities and outputs reported by the project team and implementing partners. This involved reviewing project records and supporting documentation, and where it was necessary to conduct spot checks to confirm that planned activities had been implemented and that the reported outputs had been achieved. Through these verification activities, the team observed that the planned target of reaching 100,000 smallholder farmers was not feasible given the project's implementation context and timelines. As a result, a recommendation was made to revise the target to 3,000 small-holder farmers to ensure that the project targets remained realistic and achievable.

Conduct end of project evaluation: Upon completion of the project, the Monitoring, Results and Measurement (MRM) team, with support from external consultants, conducted an end-of-project evaluation to assess the extent to which the project achieved its intended outcomes. The evaluation examined farmers' socio-economic characteristics, awareness and understanding of agricultural insurance, uptake and use of insurance products, and the project's contribution to improving resilience and financial inclusion.

The findings show that the project successfully reached smallholder farmers with insurance information. Overall, 94 percent of participants reported receiving information about crop or livestock insurance, with community meetings identified as the most effective dissemination channel, reaching 72 percent of farmers. Training and workshops also played an important role, while radio, demonstration sessions, and extension officers reached a smaller proportion of farmers.

Farmers generally demonstrated a good level of understanding of insurance, with 62 percent rating their knowledge as good or very good. Knowledge was strongest for issues related to the specific insurance products farmers were exposed to, although some gaps remained regarding claims procedures and payout timelines.

Adoption patterns differed significantly between crop and livestock insurance. Crop insurance uptake was very high, with 98 percent of farmers who received information reporting that they insured their crops. In contrast, livestock insurance uptake remained very low at only 2 percent, mainly due to lack of trust in insurers, perceived high premiums, and limited understanding of the product.

The evaluation also provides early evidence that the intervention contributed to strengthening farmers' resilience to climate-related shocks. Many farmers reported improved preparedness for climate risks, including increased savings for shocks and reduced reliance on distress coping

strategies such as selling household assets. There were also improvements in financial awareness and increased use of digital financial services for insurance transactions.

At the market systems level, the project supported the development of inclusive agricultural insurance products within Zambia's insurance sector. Partnerships with insurers, agro-dealers, mobile network operators, and other market actors strengthened the insurance delivery ecosystem. However, operational challenges were identified, including delays in claims processing, digital platform functionality issues, and affordability concerns for livestock insurance.

Overall, the project made important progress in expanding access to agricultural insurance and strengthening the foundations for inclusive agricultural risk management among smallholder farmers. While some long-term outcomes, such as income effects, require continued monitoring, the findings indicate improved awareness, stronger risk management behaviour, and progress towards sustainable agricultural insurance markets.

Based on the evaluation findings, the study recommends strengthening claims management and communication by insurers, reviewing livestock insurance pricing to improve affordability, improving the functionality of digital insurance platforms, and expanding financial literacy and trust-building initiatives among farmers. Continued collaboration between insurers, government, and agricultural market actors will be critical to scale agricultural insurance and enhance farmers' resilience to climate risks.