

2025:1a

Sida Evaluation

Nordic Consulting Group A/S

# Impact study of Musika, a Zambian rural project

A case study as part of the Central  
Evaluation of Sida's work with Poverty



**Authors:** Carsten Schwensen, Louise Smed, John Rand.

The views and interpretations expressed in this report are the authors' and do not necessarily reflect those of the Swedish International Development Cooperation Agency, Sida.

Sida Evaluation 2025:1a

Commissioned by Sida, the Evaluation Team.

**Published by:** Sida, 2025

**Copyright:** Sida and the authors

**Date of final report:** 2025-08-26

**Art.no.:** Sida62795en

urn:nbn:se:sida-62795en

This publication can be downloaded/ordered from [www.Sida.se/publications](http://www.Sida.se/publications)

# Table of contents

|                                                               |            |
|---------------------------------------------------------------|------------|
| <b>Table of contents</b> .....                                | <b>i</b>   |
| <b>Abbreviations and acronyms</b> .....                       | <b>ii</b>  |
| <b>Executive Summary</b> .....                                | <b>iii</b> |
| <b>1 Introduction</b> .....                                   | <b>1</b>   |
| <b>2 The contribution at a glance</b> .....                   | <b>2</b>   |
| 2.1 The rural poverty context in Zambia .....                 | 4          |
| <b>3 Data and methods</b> .....                               | <b>6</b>   |
| 3.1 Overall approach.....                                     | 6          |
| 3.2 Data availability and analysis .....                      | 6          |
| 3.3 Data reliability and credibility.....                     | 8          |
| 3.4 Limitations and methodological challenges.....            | 9          |
| <b>4 Theory of Change and Poverty Dimensions</b> .....        | <b>11</b>  |
| <b>5 Findings on impact</b> .....                             | <b>14</b>  |
| 5.1 Scale of impact.....                                      | 14         |
| 5.2 Impact on income, food security and assets .....          | 14         |
| 5.3 Impact on farm technologies and productivity .....        | 16         |
| 5.4 Impact on ACCESS to markets, Finance AND Inormation ..... | 19         |
| 5.5 Systemic impact and sustainability.....                   | 21         |
| <b>6 Concluding Remarks</b> .....                             | <b>23</b>  |

# Abbreviations and acronyms

|      |                                          |
|------|------------------------------------------|
| AHS  | Annual Household Surveys                 |
| CSO  | Civil Society Organisation               |
| DFID | Department for International Development |
| DiD  | Difference-in-Differences                |
| LCMS | Living Conditions Monitoring Survey      |
| M4P  | Making Markets Work for the Poor         |
| MDG  | Millennium Development Goal              |
| MDPA | Multidimensional Poverty Analysis        |
| MPI  | Multidimensional Poverty Index           |
| MSD  | Market System Development                |
| NGO  | Non-Governmental Organisation            |
| PPML | Poisson Pseudo Maximum Likelihood        |
| PSM  | Propensity Score Matching                |
| RALS | Rural Agricultural Livelihood Survey     |
| SDG  | Sustainable Development Goal             |
| SEK  | Swedish Kroner                           |
| ToC  | Theory of Change                         |
| ToR  | Terms of Reference                       |
| USD  | United States Dollars                    |
| ZDHS | Zambia Demographic and Health Survey     |

# Executive Summary

This report presents an impact assessment of the Contribution “**Support to Musika**”, in Zambia.<sup>1</sup> Musika is a national Non-Government Organisation (NGO), registered in July 2010 with the aim to reduce poverty and create wealth in rural Zambia by stimulating business relationships between the corporate sector and smallholder farmers. The assessment is primarily based on a quantitative analysis of secondary data sources collected during two project phase, 2013-2017 (Phase 2) and 2018-2022 (Phase 3).

Musika’s general approach has focused on stimulating development of a supportive market environment to provide sustainable opportunities for smallholder farmers in Zambia to invest in their own production and use markets to graduate out of poverty. In particular, Musika’s intervention strategy focused on support within four pillars for agricultural development: i) *Agricultural input markets*; ii) *Agricultural output markets*; iii) *Agricultural service markets*; and iv) *Agricultural finance markets*.

From our analysis, we find clear positive poverty reducing impacts from Musika’s interventions within the supported districts. Musika’s support has contributed to improved market access, providing an opportunity for smallholder farmers to access knowledge-based and cost-effective products and services. Among the direct beneficiaries of Musika’s support, significant positive impact is found on income, livestock, food security and access to finance. While we also found that the number of assets has increased for the direct beneficiaries, this effect is not significant. Results on farm productivity and technology are also insignificant.

Despite some positive effects, Musika’s support has been insufficient to counteract negative trends in both overall and extreme poverty at national level in Zambia during the period. Still, however, our findings show that Musika has contributed to enhanced service and product delivery as market players have become more efficient with reduced transaction costs, enhancing resilience and potentials for scalability. This is important also to take into consideration, beyond the statistical procedures and analysis lens applied in this report.

---

<sup>1</sup> This case study constitutes part of the overall “Strategic Evaluation of Sida’s Work with Poverty”. There are seven other case studies, which are presented in separate reports.

# 1 Introduction

This report presents an impact assessment of the Contribution “**Support to Musika**”, in Zambia. The case study constitutes a part of the overall “Strategic Evaluation of Sida’s Work with Poverty”.<sup>2</sup> It aims to contribute to learning and informed decision-making rather than control or accountability.

Musika is a national Non-Government Organisation (NGO), registered in July 2010 with the aim to reduce poverty and create wealth in rural Zambia by stimulating business relationships between the corporate sector and smallholder farmers. In this process, Musika’s role has mainly been to serve as a market facilitator. The assessment is primarily based on a quantitative analysis of secondary data sources collected during two project phase, 2013-2017 (Phase 2) and 2018-2022 (Phase 3).

The report is organised in the following way: In Chapter 2, the contribution case is presented and contextualised. Chapter 3 includes an outline of the main data sources and methods applied in the impact study. In Chapter 4, a reconstructed Theory of Change (ToC) for the contribution case is being presented and discussed. This is followed by a presentation of key impact findings in Chapter 5. Finally, in Chapter 6 the conclusions are presented.

Sida defines multidimensional poverty as deprivations within four dimensions - resources, opportunities and choice, power and voice and human security. Sida defines a person living in multidimensional poverty as being resource-poor and poor in one or several of the other dimensions.

Note that this definition is broader than the definition used in for instance OPHI’s national multidimensional poverty index (MPI) and the World Bank definition of multidimensional poverty that uses the MPI in combination with monetary poverty.

*Source: Sida (2019), Dimensions of Poverty, poverty toolbox.*

---

<sup>2</sup> There are seven other case studies, which are presented in separate reports.

## 2 The contribution at a glance

Table 1. Overview of contribution

|                         |                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contribution name       | Support to Musika                                                                                                                                        |
| Partner                 | Musika                                                                                                                                                   |
| Implementing partner    | Musika                                                                                                                                                   |
| Implementation period   | Phase 2: 2013-2017<br>Phase 3: 2018-2022 (extended to 2023)                                                                                              |
| Sida strategy           | Results Area 2 in the Swedish strategy for development cooperation with Zambia 2013-2017 and 2018-22 for and Phase 3 respectively                        |
| Total budget            | Total budget (Phase 1- Phase 3, 2010-2022): USD 62.5 million (approx. SEK 600 million)<br>Donors: Sida (74%); DFID (11%); IrishAid (10%); and Norad (5%) |
| Total Sida contribution | Phase 2: SEK 121 million<br>Phase 3: SEK 210 million (originally SEK 160 million but then extended twice summing to SEK 210 million)                     |
| Geographic coverage     | Phase 2: A set of fewer provinces<br>Phase 3: Nationally, gradually expanding from Phase 2                                                               |
| Sector/sub-sector       | Agriculture (main)                                                                                                                                       |
| Sida poverty indicators | Resources                                                                                                                                                |

Musika was registered in July 2010 and started work in November 2011, initially funded only by Sida but later (from 2012) also from DFID (up to the end of 2016). Over the period, Musika has remained predominately funded by Sida, which has funded main part of the core costs, though funding has also been received from a number of other donors for specific activities.

Musika's general approach has focused on stimulating the development of a supportive market environment to provide sustainable opportunities for smallholder farmers to invest in their own production and use markets to graduate out of poverty. Toward this end, Musika worked primarily with corporate entities and provided commercially focused technical advice and business support (matching grants) to catalyse and strengthen mutually beneficial commercial relationships between businesses and smallholder farmers. Musika focused on supporting the development of relationships, such as embedded extension, technology transfer, forward pricing and/or contracts that

would give both knowledge and confidence to farmers to improve their business. Musika's intervention strategy focused on support within four pillars for agricultural development:

- *Agricultural Input Markets:* Musika aimed to facilitate a market where commercial distributors of seed, fertilizer, agrochemicals and farm equipment sectors recognize the smallholder farmer sector as key customers. This were intended to encourage investments in management systems, distribution networks and embedded services, tailored to the needs of that market.
- *Agricultural Output Markets:* Musika aimed to facilitate a transparent and structured market for grain and other commodities, as well as for livestock and livestock products, reducing risks for both buyers and sellers. This, in turn, was expected to provide the smallholder and emergent sectors with incentives and sufficient confidence to invest in productivity enhancing technologies, ultimately improving their yields, profitability and farm income.
- *Agricultural Service Markets:* Musika aimed at facilitating the development of a service sector in which smallholders would have access to a wide range of productivity enhancing services from commercial and micro-enterprise service providers. These would in turn be supported by the corporate sector to access machinery, technical knowledge and after-sales knowledge.
- *Agricultural Finance Markets:* Musika supported developing of financial products and services to enhance financial access in rural Zambia, with a particular focus on agriculture and its associated industries. This also aimed at supporting the other 'pillars' of Musika's intervention strategy (agricultural inputs, outputs and services markets).

All financial support provided through Musika aimed at catalysing private investment within a particular market development area while at the same time reducing the risks of making investments in this area (for instance, introduction of a new business model, a new technology or a new geographical area). The financial support was accompanied by technical support, both at field/regional level and from the head office level (in Lusaka) through human resource capacity building, advisory services, partnership/strategic alliance development, etc.

The impact aims to reduce rural poverty through integrating farming households in well-functioning agricultural markets. Expected programme outcomes are to deepen, broaden and strengthen inclusive agricultural markets in key agricultural provinces of Zambia. In this context, deepening of markets means a greater range of products and services will be available to farming households; broadening means markets will cover areas that have hitherto been under-served and un-served, and finally, strengthening means markets will be more viable and sustainable for both buyers and sellers.

The small-scale farmers were the *ultimate beneficiaries* of Musika's activities in the sense that all activities aimed at benefitting this group in the end. The *direct*

*beneficiaries* of Musika’s support were the small businesses in the agricultural sector, which were supported financially and with technical assistance to engage further in smallholder markets. This approach is part of the Making Markets Work for the Poor (M4P) approach<sup>3</sup> that seeks to fundamentally change the way agricultural markets work in developing countries, to enhance the engagement and benefits of the poor and relatively marginalised groups.

The Swedish Embassy in Lusaka started supporting Musika, a national NGO, in 2011. The first phase was a pilot phase that ran until 2012 and from here on Sida started providing core support to Musika. Musika used to receive core support not only from Sida, but also from the Department for International Development (DFID), until DFID decided to phase out in 2016. In the last support phase (2018-2022) Sida was the main donor providing 73% of Musika’s budget.<sup>4</sup> The remaining funding of Phase 3 was provided by IrishAid and Norad. After completion Phase 3 was granted to 2023, Sida decided not to continue funding of Musika.

Musika’s total budget in the period 2012-2022 was USD 62.5 million, or around USD 6.3 million per year. According to Musika’s own data,<sup>5</sup> 430.000 farming households were benefitting from the support by the end of the project. If making a rough calculation, this means that approximately USD 15 have been “invested” in each benefitting farming household per year (around USD 1.2 per month/USD 0.04 per day).

## 2.1 THE RURAL POVERTY CONTEXT IN ZAMBIA

### Poverty aspects

Consumption poverty in Zambia, defined as the share of the population living on less than USD 1.90 per day, has risen over the past decade, increasing from 54% in 2015 to 60% in 2022 (Table 2). The share of the population identified as multidimensionally poor (based on the Multidimensional Poverty Index) was 48% in 2018, and the share in severe multidimensional poverty was 21%.<sup>6</sup>

Zambia suffers from extremely high inequalities with a severe divide between rural and urban areas. Table 2 shows that 60% of the population live in rural areas, and of those 79% are poor in terms of consumption. For urban areas, the figure is 32%. It is however noted that income poverty has been increasing fastest in urban areas during the period.

---

<sup>3</sup> M4P is an approach that incorporates a facilitative, pro-poor, bottom-up perspective to economic development and poverty reduction. MSD interventions are designed to be sustainable, systemic and scalable.

<sup>4</sup> KPMG (2022), Internal Controls Review of Musika Development Initiatives Limited, Final Report

<sup>5</sup> MUSIKA (2025), Impact. <https://www.musika.org.zm/impact/>

<sup>6</sup> It is to be noted that the Multidimensional Poverty Index is a quite different concept than Sida’s Multidimensional Poverty Analysis (MDPA).

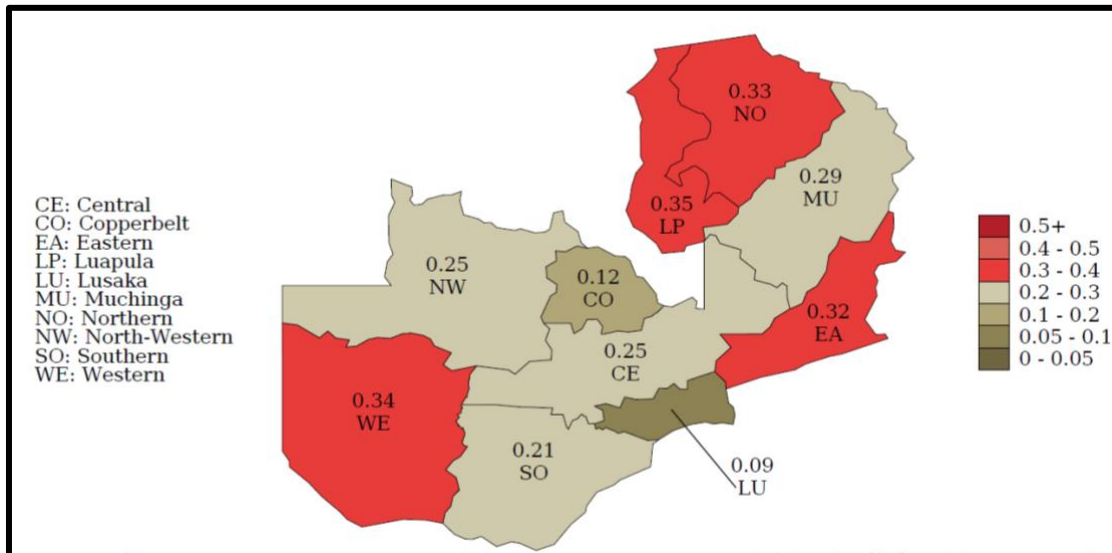
Table 2. Poverty in Zambia disaggregated by rural/urban divide

|                                      | Share in severe MPI poverty (2018) | Share in MPI poverty (2018) | Consumption poverty (2015) | Consumption poverty (2022) |
|--------------------------------------|------------------------------------|-----------------------------|----------------------------|----------------------------|
| <b>Urban</b> (40% of the population) | 6%                                 | 21%                         | 23%                        | 32%                        |
| <b>Rural</b> (60% of the population) | 31%                                | 66%                         | 77%                        | 79%                        |
| <b>National</b>                      | 21%                                | 48%                         | 54%                        | 60%                        |

Source for MPI poverty: *Global MPI Country Briefing 2020: Zambia*, OPHI, July 2020. The figures are based on the headcount, *H*, which refers to the share of the population that are multidimensional poor. The multidimensional poverty index is based on deprivation in health, education, resources. Sources for Consumption poverty: *Living Conditions Measurement Survey (LCMS) 2022*, figure 12.1. Sources for rest: OPHI (2024).

Figure 1 shows the Multidimensional Poverty Index per province, based on Demographic and Health Survey (DHS) data from 2018. Luapula was the province with the highest poverty rate but also Eastern, Northern and Western Provinces are listed as provinces with similar high poverty incidences.<sup>7</sup> This situation was confirmed when Sida re-assessed the poverty dimensions in Zambia as part of their Mid-Term Review of the country strategy.<sup>8</sup>

Figure 1. Multidimensional poverty index per province based on the 2018 DHS



Source: *Global MPI Country Briefing 2020: Zambia*, OPHI, July 2020. Data based on the 2018 DHS. The multidimensional poverty index is calculated as the prevalence (*H*) times the intensity (*A*), see the source for further details.

<sup>7</sup> Embassy of Sweden, Lusaka (2020) Mid-Term Review of Swedish Development Cooperation with Zambia 2018-2022.

<sup>8</sup> Embassy of Sweden, Lusaka (2018) Poverty analysis Zambia 2018; Embassy of Sweden, Lusaka (2020) Mid-Term Review of Swedish Development Cooperation with Zambia 2018-2022.

## 3 Data and methods

### 3.1 OVERALL APPROACH

The aim of the case studies has been to assess the impact of Sida's contributions on poverty, in line with the overall objective of Swedish development cooperation, namely, *to create preconditions for better living conditions for people living in poverty and under oppression*. Thus, for this case study, the aim is to assess the degree to which *Musika* has contributed to reduce of multi-dimensional poverty in Zambia.

The study is primarily based on quantitative data analysis (analysis of secondary data), supplemented with some key stakeholder interviews. The selection of variables to analyse was guided by the reconstructed Theory of Change (which we discuss in section 4 below).

The study mainly draws on two sources of secondary data: the Rural Agricultural Livelihoods Survey (RALS) for 2012, 2015 and 2019, as well as raw data collected by *Musika* through their Annual Household Surveys (AHS). Due to the data available in each of these surveys, we used RALS for some of the outcomes, and AHS for the remaining. We supplemented the quantitative data with interviews conducted with the Swedish Embassy and *Musika* in Zambia, and a review of selected research and literature studies.

The following sections elaborate on data availability, reliability and credibility, as well as on the methodological challenges and limitations related to the case study and its findings.

### 3.2 DATA AVAILABILITY AND ANALYSIS

The quantitative data analysis focuses on three key areas: i) changes in household income, food security and assets; ii) changes in agricultural technologies and productivity; iii) access to markets, finance and information. Certain other indicators could not be included in the analysis due to missing data or inconsistencies in the survey questionnaires over time, which hindered variable comparisons.

When analysing the effects on income, food security, and market access, we relied on data from the AHS (2018-2021). Since these data cover *Musika* Phase 3 (2018–2022), our analysis of these indicators focused on this timespan. For the remaining indicators, we used RALS data, which required focusing on Phase 2 of the programme (2013–2017). Given the programme's relative consistency over time, we believe that findings from one phase can be cautiously extrapolated to other phases.

The quantitative data analysis has been supplemented with information provided during interviews with management and staff from the Swedish Embassy and Musika, as well as with input from relevant research and literature studies.

In the data analysis we usually employ a matched Difference-in-Difference (DiD) analytical approach enabling us to control for selection bias along both observable and unobservable dimensions. Matching (Propensity Score Matching, PSM)<sup>9</sup> and balancing tests carried out help ensure that pre-treatment control and treatment units are comparable. The DiD assesses the contribution from Musika by examining differences in selected outcomes between treatment ( $D=1$ ) and control households/wards/districts (non-treated) ( $D=0$ ) before ( $T=0$ ) and after ( $T=1$ ) treatment. The DiD estimator thereby enables us to eliminate biases arising from differences in initial conditions (observable heterogeneity) and variations between treatment categories (treated and non-treated). The first difference, between treated and control units, removes general changes common to all units, while the second difference, representing the change over time, mitigates the influence of time-invariant unobserved individual heterogeneity.

In one case we complemented the DiD with a Poisson Pseudo Maximum Likelihood (PPML) regression with high-dimensional fixed effects to account for the categorical nature of the dependent variable.<sup>10</sup> In another case we used a linear probability estimate (PBM) to model the likelihood of adoption of farming techniques. All data analyses have been conducted using pre-existing impact evaluation tools in Stata.

**For many indicators we primarily draw on the RALS data** from the years 2012, 2015, and 2019. In these cases, we focus our analysis on Musika Phase 2 (2013-2017). Treatment districts (denoted as  $D=1$ ) are identified based on the AHS documentation, while districts not listed in the documentation serve as control districts ( $D=0$ ). The RALS data from 2012 is used as the pre-intervention baseline ( $T=0$ ), with 2015 and 2019 representing the post-intervention periods ( $T=1$ ).

To ensure robustness, we also test the results by considering the 2015 data as pre-intervention observations. The results from this robustness test indicated no changes in the results reported. We therefore do not report these here.

---

<sup>9</sup> PSM was used for constructing control groups that shared common attributes with the treatment group. This involved estimating a statistical model based on the probability of benefitting from the programme, using a set of observable characteristics (explanatory variables) unaffected by programme interventions. The coefficients for these variables then generated a propensity score (probability) for programme treatment. Consequently, programme beneficiaries were matched with non-beneficiaries possessing similar propensity scores, and a control group was formed by including the best matches to each participant from the treatment group.

<sup>10</sup> This is standard in the literature, see e.g. Wooldridge (2010), *Econometric Analysis of Cross Section and Panel Data*.

Since the RALS data does not follow the same households over time, we had to rely on pseudo-panel approaches to ensure robustness. We created a pseudo-panel *either* using within community matching of households on time invariant observables (matching variables – gender, age and education level of household head, household size, household dependency ratio, share of adult members that attended formal schooling, share of households that is male, female and children) *or* by using averages of household responses within a district as the observational unit over time. Either method generally gave similar results. Hence, we only report the results from the former approach.

Given the absence of information on whether specific households received treatment, this analysis should be interpreted as an "intent-to-treat" or contribution analysis, when using within community matching of households.

**For some indicators we rely on data from the Musika AHS** conducted between 2018 and 2021, thus in these cases we have focused the analysis on Musika phase 3 (2018-2022). These surveys explicitly identify both treated and non-treated households, and contrary to the RALS data the unique tracking of households over time allows for a robust longitudinal analysis. The impact from Musika Phase 3 is statistically determined by observing households that began receiving treatment between 2018 and 2021 or those that ceased treatment within the same period. To ensure comparability between treated and non-treated groups, balancing tests have been conducted and matching techniques applied based on pre-treatment characteristics.

In the data analysis using the AHS data, we employ a matched DiD analytical approach enabling us to control for selection bias along both observable and unobservable dimensions. Matching and balancing tests carried out help ensure that pre-treatment control and treatment units are comparable.

### 3.3 DATA RELIABILITY AND CREDIBILITY

The analysis in this report is primarily based on the AHS and RALS data set presented in section 3.1 and 3.2 (see also discussion of limitations in section 3.4). In general, due the various shortcomings and limitations linked to both the AHS and RALS data set, the results from our data analysis need to be interpreted with some caution.

In addition to the AHA and RALS data, an independent evaluation of DFIDs support to Musika Phase 2<sup>11</sup> is used to supplement the discussions. A source criticism of this evaluation is provided in Table 3.

---

<sup>11</sup> GDSI (2017), Independent Evaluation of Wealth Creation Development of Rural Markets in Zambia (Musika Phase 2).

| Table 3. Source criticism of Ex-post Evaluation of Musika Phase 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Criteria                                                          | Independent Evaluation of Wealth Creation Development of Rural Markets in Zambia (Musika Phase 2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <i>Usability</i>                                                  | High                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Credibility</i>                                                | Independent evaluation report conducted by external consultants                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <i>Results level</i>                                              | Outcome level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <i>Data quality</i>                                               | The end line evaluation relied on qualitative data. It was originally intended to use Musika quantitative data from the Annual Household Survey (AHS), which was incorporated into the evaluation baseline study. The methodology for performing the AHS, however, changed significantly between the baseline and end line. This posed questions about the validity of comparing variables from the two survey rounds – such as income, production and productivity – as the evaluation could not compare ‘like with like’. For comparative data, the evaluation relied on comparative data from the DFID development tracker web site and interaction with the BEAM Exchange. The Levels of available independent comparative data have proved low.              |
| <i>Quantitative and qualitative evidence</i>                      | The evaluation used a theory-based evaluation approach that aimed to assess whether, why, and how programme interventions produce the intended results by testing the set of cause-and-effect mechanism described in the ToC. As part of the theory-based approach, contribution analysis was used to explore the validity of causal linkages in result chains that underlie the programme’s individual interventions. To do this the evaluation used a case study approach assessing six intervention results chains. Data was collected for each case study intervention related to the primary evaluation questions and disaggregated according to the nodes in the result chain. This data was then used to build a contribution story for each result chain. |
| <i>Reliability</i>                                                | Reliable although main elements are based on qualitative data sources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <i>Conclusion</i>                                                 | Sufficient confidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| <i>High confidence</i>                                                                   | <i>Sufficient confidence</i>                                                                                     | <i>Limited confidence</i>                                                            | <i>Insufficient evidence</i>                              |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Based on usability, addresses impact level, identified bias mitigated, good data quality | Confidence reduced by shortcomings to usability, indications of bias not mitigated, less convincing data quality | Low confidence due to lack of usability, clear bias not mitigated, poor data quality | Insufficient evidence to support a contribution judgement |

Finally, other qualitative sources, including interviews, have added to the contextual and conceptual understanding of Musika’s interventions.

### 3.4 LIMITATIONS AND METHODOLOGICAL CHALLENGES

It is important to highlight especially four concerns regarding the data utilised:

*First*, it is not clear from the documentation of the AHS data that it consists of a comparable and representative control group. The AHS used a quasi-experimental design where participant and non-participant households were “purposively” selected.

Participant households were farmers engaged with one or more of Musika's corporate agribusiness clients, but it is not clear how non-programme participating households were selected for interview. Over-sampling of participant households were done (approximately  $\frac{3}{4}$  of the sample) and treatment sample sizes from various Musika interventions were drawn based on proportional to size of the thematic areas. Given lack of information in relation to how "purposively" is to be interpreted in the context of the selection of control/ non-participant control households, the results should be interpreted with care. The evaluation team has tried to overcome some of this concern by matching and balancing treatments and control household on pre-intervention characteristics (using 2018 as pre-intervention data).

*Second*, the RALS data does not directly identify treatment households and do not follow and interview the same households over time and it only covers the years 2012, 2015 (pre-treatment) and 2019 (early post-treatment), which contrast to the AHS covering the years 2018 (pre-treatment) and 2019-2021 (post-treatment) which have a clear identification of treatment household and most households (both treatment and control households) are followed over time, with limited attrition. For RALS this means that we had to rely on pseudo-panel techniques, as discussed above.

*Third*, given the data at hand, it was not possible to formally test parallel trend assumption underlying the reported DiD estimates, due to limited availability of pre-intervention data.

*Fourth*, the available data does not allow for a gender-based breakdown in the analysis, even though one of the expected outcomes is an increase in productive jobs for women (see ToC in Chapter 4). However, assuming that some intra-household allocation of possible benefits of the programme intervention takes place, we, with caution, assume that estimated impacts to a degree are reflective of intervention contribution across gender.

## 4 Theory of Change and Poverty Dimensions

Musika's overall impact goal was to reduce rural poverty by integrating smallholder farming households into well-functioning agricultural markets, thereby fostering productive employment. The Contribution was planned to work from the outset through investments in rural companies, focusing on enhanced engagement and service delivery in the lower-end agricultural input and output markets.<sup>12</sup>

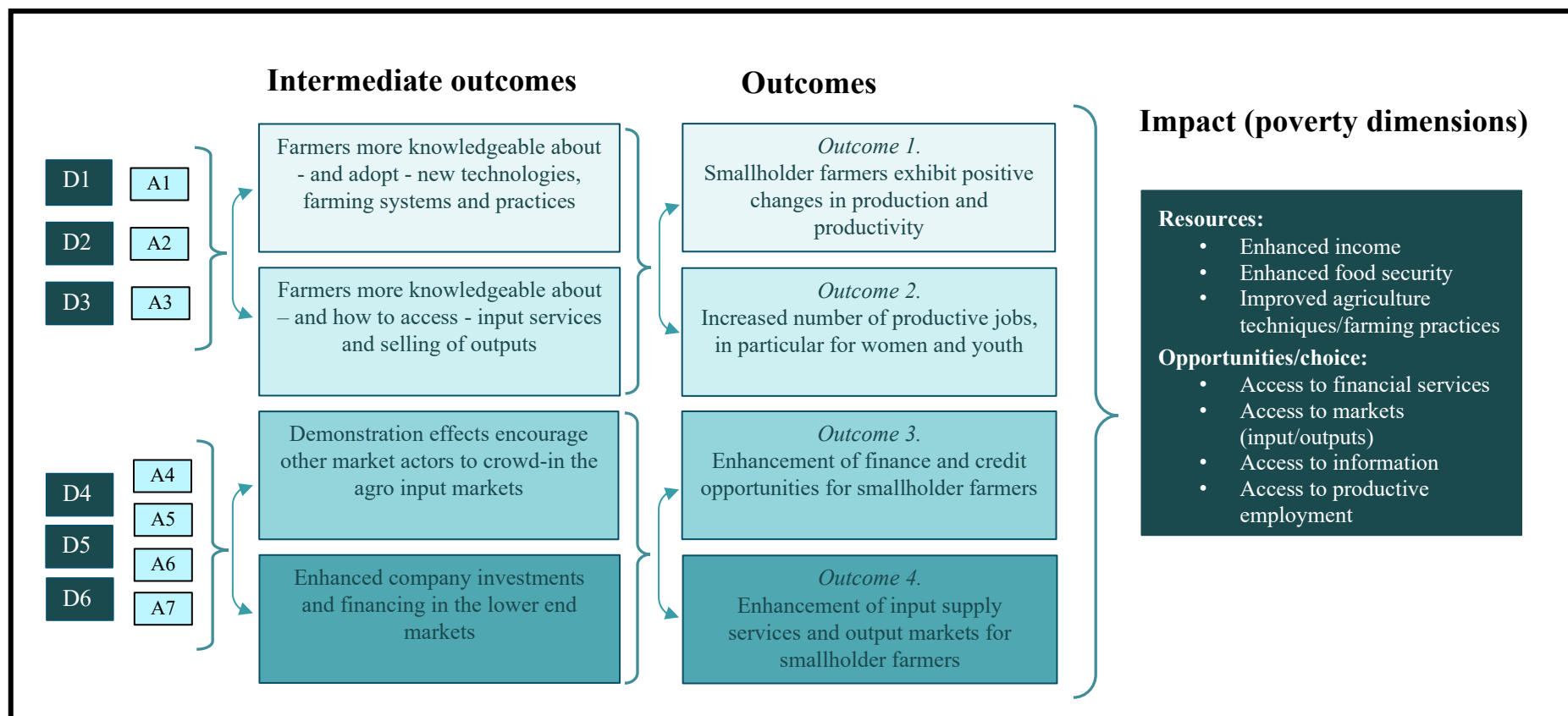
The potential impact indicators fall under Sida's resource dimension, as Musika's interventions largely have focused on developing the agricultural market to improve farmers income and employment opportunities to sustain decent living standards. However, closely interlinked is the opportunities and choice dimension with a specific focus on access to markets, finance and information. Hence, the following elements will be considered within the *resource poverty* dimension: Income poverty, food security, and agricultural techniques and farming practices (productive use). In addition, within the poverty dimension of *opportunities and choice* the aspect of access to financial services/credit, markets (input/output), information, and productive employment will be analysed.

Figure 2 illustrates a simplified, reconstructed ToC for Musika's interventions. The main intention with the ToC is to provide an overview of how Musika's interventions have been supposed to work, and for motivating the choice of impact variables discussed in Chapter 5. Thus, while the analysis and discussion in the following sections will take point of departure in the reconstructed ToC and the outcome and impact areas defined here, it will not include a more thorough discussion of the various assumptions and drivers linked to the ToC.

---

<sup>12</sup> The low-end market refers to a segment of the market that focuses on products and services that are priced lower than average for a particular category.

Figure 2. Reconstructed Musika ToC



### **Assumptions**

- A1: Farmers and companies interested in applying new technologies and practices
- A2: Investment in value chains with high engagement of women
- A3: Skills development applied in practice
- A4: There are financial benefits in engaging with lower end markets
- A5: Market development will trigger down to the poor
- A6: Enhancement of agricultural businesses will reduce poverty

### **Drivers (approaches)**

- D1: Digital technologies to enhance information sharing
- D2: Climate smart technologies
- D3: Research and analysis
- D4: Investment in markets that benefit the poor
- D5: Leveraging of financial resources to strengthen market development
- D6: Business environment (including legislation and policies) conducive to agricultural business development

## 5 Findings on impact

Below, we present the evaluation findings related to the key impact areas of Musika's interventions.

### 5.1 SCALE OF IMPACT

As mentioned above, Musika was established with the vision to stimulate private sector/market actors' interest in small-scale farmers with focus on how to create incentives and develop business models. Thus, Musika's "day-to-day" client has been the private sector which has been assisted with developing of business models and commercial relationships with small-scale farmers.

The geographical coverage of Musika has in principle been nation-wide, however not all districts have been covered by the support. According to information provided by Musika during interviews, in the second phase, Musika mainly supported partners in Lusaka, Central, Southern and Eastern Provinces. In the third phase, partners from the remaining provinces in the country were included. The support has been "value chain neutral", meaning that the support did not make preferences for specific value chains.

Since Musika interventions have mainly been based on a partnership-focused approach with individual firms as entry points and to less extent a systemic approach to market development, the level of spill-over effects and scaling has been limited, and results are largely limited to the supported districts (see discussion below). This was confirmed both by the data results and from key stakeholder interviews.

### 5.2 IMPACT ON INCOME, FOOD SECURITY AND ASSETS

**Our analysis reveals that Musika's support has had a positive effect on household income.** Focusing on Musika Phase 3 (2018-2022) and utilising data from the Musika AHS (2018-2021), Table 4 presents an analysis of the impact on household income, categorised as increased (1), unchanged (0), or decreased (-1) relative to the previous year.<sup>13</sup> In column (1), we report DiD estimates that control for household-level heterogeneity, while column (2) presents a Poisson Pseudo Maximum Likelihood (PPML) regression with high-dimensional fixed effects to account for the categorical

---

<sup>13</sup> In the AHS data we did not have total income and in the RALS data total income would have to be calculated based on a combination of income from different income sources.

nature of the dependent variable.<sup>14</sup> In fact both methods indicate that treated households have an approximately 50% higher chance of reporting increased incomes compared to non-treated households.

**We find significant evidence that Musika reduced food insecurity.** Our data analysis shows that Musika-treated households reported having a significant lower probability (11.7%) of being food insecure compared to non-treated households (Table 4, column 3).

**The effects above are not due to different exposure to shocks.** To assess whether treated and non-treated households differed in terms of their exposure to shocks, we include matched DiD estimates of shock probabilities in column (4) of Table 4.<sup>15</sup> Shock probability was in the AHS data defined as “Yes/No” answer to the following question: “*Was your household affected by any shocks? i.e. loss of crop due to drought/flood, disease/loss of livestock, damage to assets/dwelling?*” The results show no significant differences between the two groups in terms of shock exposure from 2018 to 2021.

| Table 4. Changes in income and food insecurity |                         |                         |                         |                          |
|------------------------------------------------|-------------------------|-------------------------|-------------------------|--------------------------|
| VARIABLES                                      | (1)<br>Income<br>Change | (2)<br>Income<br>Change | (3)<br>Food<br>insecure | (4)<br>Shock<br>Exposure |
| DiD estimates                                  | 0.505***<br>(0.0581)    | 0.465***<br>(0.0573)    | -0.117***<br>(0.0293)   | 0.0108<br>(0.0325)       |
| Observations                                   | 2,665                   | 1,747                   | 2,665                   | 2,665                    |
| Treatment observations                         | 1,729                   | 1,155                   | 1,729                   | 1,729                    |
| R-squared                                      | 0.074                   | 0.075                   | 0.045                   | 0.039                    |
| Model                                          | DiD                     | Poisson                 | DiD                     | DiD                      |
| Pseudo-panel                                   | No                      | No                      | No                      | No                       |
| Matching                                       | Yes                     | Yes                     | Yes                     | Yes                      |

Source: AHS 2018-2021. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

**We cannot with certainty verify that Musika has contributed to increased accumulation of household assets.** To reach this conclusion, we analyse Musika’s potential contribution to household asset accumulation and asset value using the RALS data, which covers phase 2 (2012-2019). Treatment districts are identified based on the

<sup>14</sup> This is standard in the literature, see e.g. Wooldridge (2010), *Econometric Analysis of Cross Section and Panel Data*. The PPML is also a DiD approach, comparing changes over time, however it is more advanced as it does not assume linearity in the model.

<sup>15</sup> It is relevant here to analyse the exposure to shocks in the context of interpreting income impact because if the reason for the positive income change is because treatment HHs are less exposed to shocks (not related to Musika), then it may be difficult to conclude that income changes can be contributed to Musika’s support.

AHS documentation, while districts not listed in the documentation serve as control districts. This analysis follows the previously described DiD approach.

In Table 5, Columns (1) and (3) present the DiD estimates without controlling for household-specific characteristics, while Columns (2) and (4) provide matched DiD estimates, accounting for such attributes. Column (1) suggests that Musika may have contributed to the accumulation of household assets. Specifically, households in Musika-treated districts experienced an increase in the number of assets by approximately 0.2.

However, when controlling for household-specific differences using the matched DiD approach in Column (2), this effect disappears, indicating that Musika's influence on asset accumulation is not statistically significant once these differences are taken into account. Given the pseudo-panel nature of the RALS data, we have more trust in the estimates reported in columns (2) and (4).

Table 5. Number of Assets and Value of Assets

| VARIABLES                        | (1)<br>No of<br>assets | (2)<br>No of<br>assets | (3)<br>Value of<br>assets | (4)<br>Value of<br>assets |
|----------------------------------|------------------------|------------------------|---------------------------|---------------------------|
| DiD estimates                    | 0.207***<br>(0.060)    | 0.105<br>(0.072)       | 0.050<br>(0.033)          | 0.034<br>(0.040)          |
| HH observations                  | 24,013                 | 24,013                 | 23,913                    | 23,913                    |
| Treatment HH observations        | 10,029                 | 9,999                  | 10,029                    | 9,999                     |
| District observations            | 222                    | 222                    | 222                       | 222                       |
| Treatment districts observations | 56                     | 56                     | 56                        | 56                        |
| R-squared                        | 0.15                   | 0.83                   | 0.79                      | 0.95                      |
| Model                            | DiD                    | DiD                    | DiD                       | DiD                       |
| Pseudo-panel                     | Yes                    | Yes                    | Yes                       | Yes                       |
| Matching                         | No                     | Yes                    | No                        | Yes                       |

Source: RALS 2012/2015/2019. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

After adjusting for similarity of household-level characteristics over time, there is no clear evidence that Musika significantly contributed to the growth in the value of household assets. In Table 5, columns (3) and (4) show that while there is an average increase of 3-5% in asset value for households in Musika treatment districts, this estimate is not statistically robust in the matched DiD analysis.

### 5.3 IMPACT ON FARM TECHNOLOGIES AND PRODUCTIVITY

**Musika-treated households, overall, do not exhibit a significantly higher likelihood of changing farming techniques over time and treatment farmers do not exhibit higher ability to reduce losses when exposed to agricultural or climate-**

**related shocks.** The Musika AHS provide valuable data on changes in farming technologies<sup>16</sup> and whether the adoption of new technologies has helped mitigate losses when households face shocks. In Table 6, column (1) presents linear probability estimates (LPM) regarding the likelihood of adopting new farming methods. The results show that Musika-treated households are not less likely to rely on traditional farming techniques than control group farmers, when controlling for differences in household characteristics. This suggests that treatment households are not more inclined to adopt non-traditional or innovative farming practices. Moreover, DiD estimates in column (2) confirm this result by showing that treated households are not more likely to change main farming method as compared to control households. Combined, this may explain why we find no differences in “losses in reductions when exposed to shocks” between treated and control households (column 3).

| Table 6. Farm technologies |                            |                           |                                                |
|----------------------------|----------------------------|---------------------------|------------------------------------------------|
| VARIABLES                  | (1)<br>Traditional Farming | (2)<br>Farm method change | (3)<br>Reduced losses (when exposed to shocks) |
| DiD estimates              | -0.008<br>(0.027)          | -0.028<br>(0.054)         | 0.014<br>(0.012)                               |
| Observations               | 5,044                      | 1,083                     | 2,537                                          |
| Treatment obs.             | 3,189                      | 700                       | 1,632                                          |
| R-squared                  | 0.60                       | 0.69                      | 0.73                                           |
| Model                      | LPM                        | DiD                       | DiD                                            |
| Pseudo-panel               | No                         | No                        | No                                             |
| Matching                   | Yes                        | Yes                       | Yes                                            |

Source: AHS 2018-2021. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $< 0.1$

**Lack of statistical significance makes it difficult to draw a firm conclusion on Musika’s direct impact on agricultural productivity.** Table 7 shows the results from the analysis of RALS data on changes among farmers in Musika-treated districts compared to similar farmers in non-treated districts, matched along observable characteristics. When comparing data on agricultural productivity (measured as yield per hectare) for farmers in, respectively, Musika-treated and non-treated districts, DiD estimates for all outcomes are not statistically well-determined.

Despite this inconclusive result, the time trend analysis reveals a noteworthy pattern: agricultural productivity has improved significantly across both treatment and control districts over the study period. This broader improvement could be driven by external factors, such as advancements in farming techniques, better access to inputs,

<sup>16</sup> Including: Low cost irrigation equipment, post-harvest technologies, mechanisation equipment and use of hybrid seeds.

or favourable weather conditions, affecting both groups of farmers. Thus, while Musika's direct contribution to productivity gains remains uncertain, the general trend highlights a positive overall shift in agricultural performance.

Table 7. Farm productivity - Average Yield per Hectare

|                           | (1)            | (2)             | (3)            | (4)               | (5)              |
|---------------------------|----------------|-----------------|----------------|-------------------|------------------|
| VARIABLES                 | Beans          | Ground<br>Nut   | Maize          | Sweet<br>Potato   | Cassava          |
| DiD estimates             | 30.8<br>(59.3) | -15.2<br>(37.8) | -6.7<br>(77.5) | 369.4<br>(1213.4) | -81.4<br>(719.9) |
| HH observations           | 3,913          | 12,945          | 21,344         | 3,829             | 4,396            |
| Treatment HH observations | 1,930          | 6,367           | 9,209          | 1,645             | 1,302            |
| District observations     | 195            | 222             | 222            | 209               | 123              |
| Treatment districts       | 63             | 66              | 66             | 66                | 33               |
| R-squared                 | 0.04           | 0.08            | 0.08           | 0.02              | 0.03             |
| Model                     | DiD            | DiD             | DiD            | DiD               | DiD              |
| Pseudo-panel              | Yes            | Yes             | Yes            | Yes               | Yes              |
| Matching                  | Yes            | Yes             | Yes            | Yes               | Yes              |

Source: RALS 2012/2015/2019. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

**Our data analysis shows that farmers in Musika-treated districts have experienced significantly larger increases in livestock compared to farmers in non-treated areas.** Table 8 shows the results from comparison of changes in livestock holdings between farmers in Musika-treated districts and those in non-treated districts using the RALS data, while controlling for household-level differences.

Table 8. Livestock changes

|                     | (1)                 | (2)                 | (3)                | (4)                | (5)                 | (6)                |
|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| VARIABLES           | Cattle              | Goats               | Sheep              | Chickens           | Guinea Fowls        | Rabbits            |
| DiD estimates       | 1.959***<br>(0.406) | 1.158***<br>(0.246) | 0.134**<br>(0.067) | 0.909**<br>(0.455) | 0.702***<br>(0.113) | 0.0942*<br>(0.049) |
| HH Observations     | 20,357              | 20,357              | 20,357             | 20,357             | 20,357              | 20,357             |
| Treatment HH obs.   | 8,919               | 8,919               | 8,919              | 8,919              | 8,919               | 8,919              |
| District obs.       | 222                 | 222                 | 222                | 222                | 222                 | 222                |
| Treatment districts | 66                  | 66                  | 66                 | 66                 | 66                  | 66                 |
| R-squared           | 0.599               | 0.572               | 0.499              | 0.564              | 0.438               | 0.470              |
| Model               | DiD                 | DiD                 | DiD                | DiD                | DiD                 | DiD                |
| Pseudo-panel        | Yes                 | Yes                 | Yes                | Yes                | Yes                 | Yes                |
| Matching            | Yes                 | Yes                 | Yes                | Yes                | Yes                 | Yes                |

Source: RALS 2012/2015/2019. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

A clear and significant pattern emerges from the data analysis. The matched DiD estimates reveal broad and positive impacts of Musika's interventions across various types of livestock. The results show statistically significant increases in the

number of cattle, goats, sheep, chickens, guinea fowls, and rabbits in Musika-treated districts. Pigs, Donkeys, Ducks and Geese were also tested, but no significant impact was found here.

These findings suggest that Musika has contributed to substantial growth in livestock holdings, likely enhancing the economic resilience of households in treated districts by diversifying their assets and improving their income-generating potential. Livestock accumulation can be a critical factor in supporting long-term rural livelihoods, as it offers both financial stability and a buffer against agricultural risks and shocks. The livestock sector provides an opportunity to farmers as an alternative income stream and climate change mitigation.

## 5.4 IMPACT ON ACCESS TO MARKETS, FINANCE AND INFORMATION

**While there is no evidence that Musika-treated households experienced significantly greater improvements in input market access compared to non-treated households, they did see significantly greater enhancements in output market access.** The Musika AHS data capture access to agricultural input markets and whether conditions in output markets have improved over time. Table 9 shows the matched DiD estimates that assess changes in input markets (column 1) and output markets (column 2).

In general, the data reveals that input and output market access, for both treated and non-treated households, has significantly improved over time. This suggests that broader market factors or trends have contributed to better access to agricultural inputs and output markets across the board. Qualitative observations from Musika's annual reporting indicate that market players have extended further into rural areas, reduced the size of packaging, and farmers now access more affordable improved seeds, which has also impacted positively on the productivity. Thus, the input market system seems to have improved across the board also with contribution from Musika's supported interventions, a good example being more actors working with e-vouchers.

**Our data analysis shows that Musika's interventions have significantly contributed to expanding financial inclusion for the treated households, enabling greater access to credit through formal channels.** The DiD approach using the RALS data clearly indicates that Musika has positively impacted households' ability to secure formal financial services (Table 10). Columns (1) presents the DiD estimates without controlling for household-specific characteristics, while Columns (2) provides matched DiD estimates.

Table 9. Input and output market access

| VARIABLES       | (1)<br>Input markets | (2)<br>Output markets |
|-----------------|----------------------|-----------------------|
| DiD estimates   | 0.031<br>(0.031)     | 0.086**<br>(0.034)    |
| HH observations | 2,535                | 5,025                 |
| Treatment obs.  | 1,630                | 3,177                 |
| R-squared       | 0.81                 | 0.04                  |
| Model           | DiD                  | DiD                   |
| Pseudo-panel    | No                   | No                    |
| Matching        | Yes                  | Yes                   |

Source: AHS 2018-202. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Specifically, households in Musika-treated districts saw a statistically significant increase in their probability of accessing formal credit, with an estimated 0.5% higher likelihood compared to households in non-treated districts. This result holds even after controlling for household-level heterogeneity, while pseudo-panels using household averages across districts obtain the effect size but reduce the precision of the estimate. This increased access to finance is a critical outcome, although small, as it can potentially enhance households' capacity to invest in agricultural inputs, technology, or other assets that support livelihood improvements and economic resilience.

Table 10. Access to Credit

| VARIABLES           | (1)<br>Access to credit | (2)<br>Access to credit |
|---------------------|-------------------------|-------------------------|
| DiD estimates       | 0.896<br>(0.736)        | 0.503***<br>(0.099)     |
| HH observations     | 24,012                  | 24,012                  |
| Treatment HH        | 10,028                  | 10,028                  |
| District obs.       | 222                     | 222                     |
| Treatment districts | 66                      | 66                      |
| R-squared           | 0.081                   | 0.527                   |
| Model               | DiD                     | DiD                     |
| Pseudo-panel        | Yes                     | Yes                     |
| Matching            | No                      | Yes                     |

Source: RALS 2012/2015/2019. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

**Our analysis of the RALS data further shows that households in Musika-treated districts were more likely to rely on mobile technology for accessing weather forecasts, which can play a crucial role in agricultural decision-making and risk management. However, for the other potential uses of mobile phones, there was no significant effects.** Table 11 shows the differences in the use of mobile phone information technology between households in Musika-treated districts and those in

non-treated districts. After controlling for variations in household-level attributes, the analysis reveals that Musika's interventions had a statistically significant impact only on one specific aspect: the use of online weather prediction services.

Table 11. Use of mobile services

| VARIABLES           | 1<br>Obtain farm<br>producer<br>prices | 2<br>Locate<br>buyers<br>for farm<br>products | 3<br>Assist to run<br>your own<br>non-farm<br>business | 4<br>Send or<br>receive<br>money | 5<br>Mobile<br>banking | 6<br>Online<br>extension<br>services | 7<br>Online<br>weather<br>predictions |
|---------------------|----------------------------------------|-----------------------------------------------|--------------------------------------------------------|----------------------------------|------------------------|--------------------------------------|---------------------------------------|
| DiD estimates       | -0.152<br>(0.155)                      | -0.238<br>(0.249)                             | 0.195<br>(0.252)                                       | -0.114<br>(0.236)                | -0.272<br>(0.168)      | -0.083<br>(0.178)                    | 0.285**<br>(0.130)                    |
| HH observations     | 13,887                                 | 13,887                                        | 13,887                                                 | 13,887                           | 13,887                 | 13,887                               | 13,887                                |
| Treatment HHs       | 5,985                                  | 5,985                                         | 5,985                                                  | 5,985                            | 5,985                  | 5,985                                | 5,985                                 |
| District obs.       | 104                                    | 104                                           | 104                                                    | 104                              | 104                    | 104                                  | 104                                   |
| Treatment districts | 44                                     | 44                                            | 44                                                     | 44                               | 44                     | 44                                   | 44                                    |
| R-squared           | 0.07                                   | 0.11                                          | 0.10                                                   | 0.21                             | 0.15                   | 0.01                                 | 0.03                                  |
| Model               | DiD                                    | DiD                                           | DiD                                                    | DiD                              | DiD                    | DiD                                  | DiD                                   |
| Pseudo-panel        | Yes                                    | Yes                                           | Yes                                                    | Yes                              | Yes                    | Yes                                  | Yes                                   |
| Matching            | Yes                                    | Yes                                           | Yes                                                    | Yes                              | Yes                    | Yes                                  | Yes                                   |

Source: RALS 2015/2019. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

For other indicators of mobile phone technology use - such as market price information, agricultural advice, or financial services - the data does not show any significant differences between households in treated and non-treated districts. This suggests that while Musika may have contributed to an increase in the adoption of weather-related online tools, Musika's influence on the broader use of mobile information technologies in daily life appears to be limited. This outcome may reflect varying levels of access, awareness, or relevance of other technologies in the households' contexts.

## 5.5 SYSTEMIC IMPACT AND SUSTAINABILITY

Through Phase 2 and 3, Musika focused on a partnership-focused approach, where individual firms were the entry point for support. While these partnerships were overall considered to work well, we find that the impact from Musika's work was mainly around the supported individual firm level and the related small-scale farmers.

Based on case studies conducted as part of the DFID-funded external evaluation of Musika Phase 2,<sup>17</sup> this evaluation found that Musika had used a *facilitative and adaptive approach* as opposed to *performing market systems analysis*. This approach was found to have worked effectively in some case studies but not in others. The

<sup>17</sup> GDSI (2017), Independent Evaluation of Wealth Creation Development of Rural Markets in Zambia (Musika Phase 2).

evaluation therefore suggested to perform *deeper market system analysis to enhance performance further*. For some of the cases studied, the evaluation noted that change in market demand and supply was mostly concentrated on the recipient of support *with no examples of wider systemic change emerging by the time of the end line study*.

Following this, an External Midterm Review in 2020<sup>18</sup> recommended *a shift in the approach from the individual firm level to the industry level in order to generate a more systemic impact*. The Midterm Review (2020) found that Musika's staff displayed *a high level of technical competence in most areas of their work*, particular as it related to the partners they worked with and management of the current partner-centric analysis, facilitation, measurement and learning processes.

The Midterm Review further noted that the transformation required for Musika's organisation to shift towards a systems-oriented approach would be *significant*, but that Musika as *a high-capacity organisation* should be *well-positioned to manage this process*. The review found that although there was *still some way to go*, making the transition from a partner-oriented approach to a systems-focused approach was *likely to have a positive effect on all areas of Musika's work and increase its impact beyond the already significant results it has achieved to date*.

The Midterm Review therefore concluded that where it would be worth investing further would be in *developing in-depth understanding and skills to support application of the market system approach across the whole team*. Following the recommendation from the Midterm Review, Musika was introduced to the Sida Helpdesk on Market System Development (MSD) to receive technical assistance for developing of an MSD approach and was also supported in this process by a consultant.

The process of transforming Musika's approach towards a system-oriented MSD approach did not go smooth, however. According to stakeholder interviews, the organisation was reluctant to change and to bring in new people with required MSD skills from outside. Thus, despite the support received from Sida's Helpdesk and consultancies, the organisation failed to provide the Swedish Embassy with an acceptable proposal for a subsequent project phase, based on an MSD approach. Consequently, the Swedish Embassy decided not to fund a new phase of support to Musika. Given Musika's large dependence of funding from Sida, this is a serious issue for the organisation and it is challenging the sustainability of the organisations activities, at least in the short term.

---

<sup>18</sup> Springfield Centre (2020), "Musika External Review, Interim Report"

## 6 Concluding Remarks

The key results from our analysis are summarized in Table 12, sorting the effects according to their likely position in a hypothesised causal chain. While all effects could potentially result directly from Musika, the secondary effects may arise indirectly through some of the primary effects. Similarly, some of the tertiary effects may be indirect results of earlier effects.<sup>19</sup>

| Table 12. Summary of results |                                            |                             |       |
|------------------------------|--------------------------------------------|-----------------------------|-------|
| Causal step                  | Variable                                   | Effect of Musika            | Table |
| Primary                      | Access to markets                          | Partly positive             | 9     |
|                              | Access to finance                          | Positive                    | 10    |
|                              | Access to weather information from mobiles | Positive                    | 11    |
|                              | Access to other information from mobiles   | Insignificant               | 11    |
|                              | Farm technology                            | Insignificant               | 6     |
| Secondary                    | Farm productivity (yield)                  | Insignificant               | 7     |
|                              | Livestock                                  | Positive                    | 8     |
| Tertiary                     | Household assets                           | Insignificant, but positive | 5     |
|                              | Household incomes                          | Positive                    | 4     |
|                              | Household food security                    | Positive                    | 4     |

*Source: our summary of the results in tables 4 to 11.*

As can be seen, we find clear positive poverty reducing impacts from Musika's support within the supported districts, in line with the overall impact goal of Musika's work (to reduce rural poverty). Musika's support has contributed to improved market access, providing an opportunity for smallholder farmers to access knowledge based and cost-effective products and services.

Among the direct beneficiaries of Musika's support, significant positive impact is found on household income, food security, livestock and access to finance. In the context of a commercial farmer-oriented agriculture market in Zambia, skewed along the line of rail with minimal engagement with the smallholder farmers, Musika's interventions have contributed to increased private sector engagement and investment into the smallholder farmer markets through a business strategy focusing of creating or developing a supply and distribution "last mile model". The private sector has gradually established a "smallholder wing" dedicated to service the smallholder market.

<sup>19</sup> This way to organize the results does not fully map into the ToC discussed in section 4.

Still, these positive effects have been insufficient to counteract negative trends in both overall and extreme poverty at national level in Zambia during the period. In particular drought and COVID-19 have had a severe effect on poverty levels in Zambia during the period, and in 2022 almost 49% of the Zambian population lived in extreme poverty. It is likely, however, that the increase in poverty would have been even larger in the counterfactual scenario with no Musika support at all. Likewise, it is important that Musika's effects on poverty at large is viewed in the context of the overall budget allocation and the size of the target group.

Musika's inability to effectively contribute to a combating of poverty at a larger scale in Zambia, may also be seen as a consequence of the approach applied by Musika, where focus has been mainly on supporting individual firms rather than on development of market *systems*. Evidence now suggests that there are sufficient examples of programmes promoting economic development, improving access to services and reducing poverty, to validate the use of a market systems approach. However, market systems development remains a highly contextual and complex approach and the evidence base still needs to be expanded to better answer in-depth questions about *who* benefits and *how*, and in what circumstances the approach can be most effective.<sup>20</sup>

We have not been able to evidence direct spill-over effects between “treated” and “non-treated” districts/farmers in this analysis. However, the change of business strategy at firm level has meant improved service and product delivery to farmers regardless of them belonging to the “treatment” or the “non-treatment” group. Thus, in general, the service and product delivery has improved as market players have become more efficient with reduced transaction costs, enhancing resilience and potential scalability. It is important also to take this into consideration, beyond the statistical procedures and analysis lens applied in this report.

---

<sup>20</sup> See the 2024 Evidence Review at <https://beamexchange.org/>. This review provides an analysis of 72 documents, mostly published in the last three years, including impact evaluations, reports, evidence briefs and case studies. Even though evidence of ex-post evaluations remains scarce, the review highlights successful systemic changes and long-term impacts of MSD programmes, particularly in Africa and Asia, demonstrating sustained benefits even after programme completion. The Building Effective and Accessible Markets (BEAM) Exchange is a platform for knowledge exchange and learning about the role of markets in poverty reduction.

This report presents an impact assessment of the “Support to Musika” in Zambia, for the period 2013-2022. Musika is a national Non-Government Organisation, which aim to reduce poverty and create wealth in rural Zambia by stimulating business relationships between the corporate sector and smallholder farmers. The assessment is primarily based on a quantitative analysis of secondary data sources.

We find clear positive, significant impact for income, livestock, food security and access to finance. While we also found that the number of assets has increased for the direct beneficiaries, this effect is not significant. Results on farm productivity and technology are also insignificant.

Despite some positive effects, Musika’s support has been insufficient to counteract negative trends in both overall and extreme poverty at national level in Zambia during the period. Still, however, our findings show that Musika has contributed to enhanced service and product delivery.



SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY

Visiting address: Rissneleden 110, 174 57 Sundbyberg  
Postal address: Box 2025, SE-174 02 Sundbyberg, Sweden  
Telephone: +46 (0)8-698 50 00. Telefax: +46 (0)8-20 88 64  
E-mail: [sida@sida.se](mailto:sida@sida.se) Web: [sida.se/en](http://sida.se/en)

