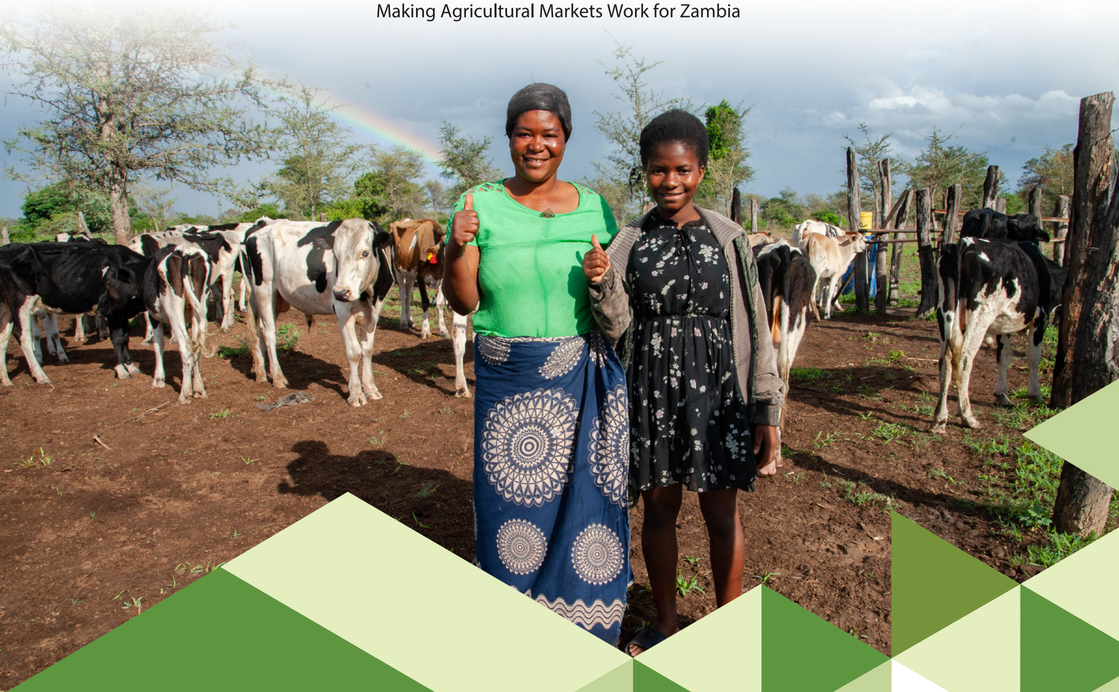
MUSIKA

Making Agricultural Markets Work for Zambia



IMPROVING SMALLHOLDER LIVELIHOODS THROUGH MARKET LINKAGES

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ABOUT MUSIKA

Musika is a Zambian non-profit company with a mandate to stimulate and support public and private investment that promote systemic change in the Zambian agricultural markets with a specific focus on the lower end of these markets. Musika facilitates the development of a conducive agricultural market that creates opportunities for smallholder farmers to actively participate, in order to achieve commercially viable production and productivity. These farmers will not only thrive in these agricultural markets but also withstand and quickly recover from socio-economic and climatic impacts/shocks. Musika has been in operation since November 2011 and it has gained a strong reputation in the Zambian market for innovation, results and service delivery.

Over the years Musika has implemented various interventions across the agricultural sector working with over 80 private sector partners with funding from Sida, Norad, IrishAid, DFID, and WorldFish.

FOREWORD

Musika is happy to share this version of its impact booklet – 'Improving lives through improved market linkages' which highlights the impact and results of selected interventions throughout Zambia.

The selected interventions highlight how Musika facilitates the development of a conducive agricultural market that creates opportunities for smallholder farmers to actively participate, in order to achieve commercially viable production and productivity.

We would like to acknowledge with much appreciation the financial support Musika continues to receive from Sweden through the Swedish Embassy in Lusaka which made this impact story booklet possible.

It is our earnest hope that readers will find it exciting.

Reuben Banda

Managing Director

CONTENTS

1. SUPPORTING THE GROWTH OF THE SMALLHOLDER DAIRY INDUSTRY IN ISOLATED AREAS

Constraints

Namwala district in Southern Zambia, with an estimated population of 167,938, is largely a cattle farming community. However, livestock was viewed more as an asset and for prestige and rearing dairy animals was not a cultural practice. Poor livestock management practices were also leading to poor animal health, low productivity and incomes, ultimately contributing to poverty and food insecurity. Dairy market players also did not see the need to invest in Namwala which is off the main trade line and on the other hand cattle farmers did not believe they could trade milk produced from their beef animals.

The Intervention:

Musika identified the opportunity to develop the dairy market owing to the high population of beef cattle needed to meet the demand by market players. In 2014, it partnered with Parmalat Zambia Plc, now called Lactalis to pilot the intervention in Namwala district by providing technical and financial support including identification of Milk Collection Centre (MCC) sites, community mobilisation, financial & business management training for farmer groups, local leadership engagements, and business modelling. Financial support was provided towards the purchase of five (5) 1,500 liter milk cooling tanks, milk containers, and a motobike for extension service support. Musika also partnered with vet service providers to improve animal health and productivity of smallholder herds. Extension staff provided training in hygiene, handling and storage to improve the grade of the milk supplied to MCCs. Farmers were sensitized on the need for vet services, adherence to the herd health plan, and also the dairy business opportunity.

Results:

1. Behavioral Change, Scale and Crowding in

- Smallholder farmers identified the new business opportunity and saw the need for improved animal health.
- Access to vet services, adhering to a herd health management plan, supplementary feeding and weekly spray services was appreciated and how this had a direct impact on their incomes.
- Farmers started to invest in dairy animals, improved genetics to improve their dairy production.
- Parmalat recognized the potential of Namwala as a milk producing district and increased the size of the milk tanks from 1500ltrs to 2500ltrs capacity. Parmalat further opened up new milk depots in the district.
- Other Dairy market players have come into Namwala and have provided an additional market for the smallholder farmers
- Introduction of “Loan a cow” Initiative by ZANACO Bank.
- Farmers begun to fabricate their own local version of the spray race.

2. Improved incomes

- Volume of Milk sold through the Milk Collection Centres = 7,998,620 Litres
- Value of money injected in the Community Via Milk sales = ZWK41,347,503 (US$2.4m) against a catalytic Total investment of US$ 199,732

- Farmers improved household incomes, which increased access to other household needs such as education, healthcare etc.

3. Improved livelihoods

- Women participation as entrepreneurs, income generation and access to nutritious products.
- Increased Youth Participation as Milk Traders (Agents) has created employment opportunities.
- Improved range of production options with farmers saved from selling their prized animals in emergency situations, and at exploitative prices.
- Enhanced income and increased household resilience against multiple risks including those presented by climate change.

2. THE LAST MILE AGRICULTURAL INPUT DISTRIBUTION MODEL

Constraints

Smallholder farmers in Zambia account for over 80 percent of the food produced. However, their productivity was largely hampered by lack of access to affordable, productivity enhancing technologies, particularly seed, chemicals and mechanisation. This was worsened by limited access to extension services due to the underfunded and overstretched government extension provision.

Agricultural input market players also did not see the need to invest in the rural smallholder market and provide extension information, thereby leaving farmers to travel long distances to access inputs and incur prohibitive costs associated with transporting the inputs from central business centres.

The intervention

Musika recognized the need for an intervention that would address these constraints. In 2011, it piloted an intervention whose objective was to ensure every rural farmer had equal chance and opportunity to access improved agricultural inputs coupled with extension services. The intervention was coined the 'last mile' distribution model.

Musika provided financial and technical support to Seedco, Zamseed, MRI and other input companies to test the proof of concept around the use of the 20t foot containers and smaller collapsible containers to be used as sales and distribution points for agricultural inputs in rural parts of Zambia. The container model meant direct engagement of input firms' agents and rural communities as well as provision of high-quality inputs coupled with information at the door steps of rural farmers. Musika also provided logistical support in the form of motorbikes to agricultural input suppliers to facilitate easy access of agricultural inputs and extension service provision. Musika also provided technical support including identification of sites, community mobilisation, financial & business management training for farmer groups, and local leadership engagements.

Results

1. Behavioral Change, Scale and Crowding in

- A substantial change among smallholder farmers' perception and responsiveness to hybrid seed and adoption of agricultural technologies. Changes have been experienced at industry, firm and farmer levels
- Demand for improved inputs was overwhelming and the container become a new standard that input firms adopted to serve the rural areas, leading to inputs delivered on time and closer to the farming communities bundled with information provision.
- In 2015, Seedco, one of Musika's first partners in the input market invested in additional 25 motorbikes, beyond Musika's support, to enhance provision of extension services as part of the company's expansion strategy to almost every rural part of Zambia.

- The model has been innovated to incorporate more than one firm to operate the container, like is the case in Chief Chikanta's chiefdom in Kalomo district, where private players have formed strategic alliances to offer bundled products and services.
- By 2017, over 2179 access points were established across the country.

2. Improved incomes and livelihoods

- By 2017 a total of 411,386 farmers were accessing improved inputs
- Over US $1 million private sector capital was invested in the input market.

3. STRENGTHENING VETERINARY SERVICES IN ZAMBIA

Constraints

Zambia's livestock industry plays an important role in food production and income generation for smallholder farmers and helps provide food security for the nation. Despite the smallholder sector accounting for about 80 percent of the total livestock in the country, many farmers have found their growth hindered by limited knowhow on animal husbandry practices coupled with the considerable distances involved in reaching professional livestock services. And even where livestock services were accessible, they were limited in scope. The result was massive losses for the farmers as their animals get ravaged by disease.

The intervention

In 2012, Musika began facilitating the development of a robust private sector veterinary product distribution and service provision market to link vet companies and their intermediaries to smallholder farmers. The intervention helped eliminate barriers that hindered livestock service companies from serving rural smallholder farmers, paving the way for farmers to access affordable health, nutrition and genetics products and services for a range of livestock, and backed by technical knowledge provision and training. Under this intervention, Musika has supported a total of 14 companies including Vet24, Livestock Veterinary Services Consult, Bimeda, and Silverlands Ranching Limited to test various business models in specific regions. This support comes in the form of logistics and infrastructural assets including Spray Races, training and extension costs.

Results

1. Behavioral Change, Scale and Crowding in

- The intervention led to improved access to vet services, farmers adhering to a herd health management plan, leading to reduced animal mortality rates.
- Supplementary feeding and weekly spray services was appreciated and how it had a direct impact on farmers' incomes.
- Veterinary firms recognized the potential of investing in rural smallholder communities and increased their footprint. The intervention resulted in the establishment of more than 128 points of access to veterinary services for rural communities in different parts of the country between 2012 and 2019.

2. Improved incomes and livelihoods

- Over 62,800 smallholders (16% women) have benefited from a robust private sector veterinary product distribution and service provision market.
- Over US$3 million of private capital was leveraged in investment in the smallholder market.

4. ENHANCING TRANSPARENCY IN THE CASSAVA MARKET - A CASE OF ZAMBIAN BREWERIES

Constraints

Cultivating cassava in Zambia faces several challenges, including limited knowledge of best agronomic practices, inadequate processing and market infrastructure, limited access to credit and financial services, and lack of transparency in the market system. While transparency and ethical sourcing of raw materials from the bottom of the pyramid suppliers, by the private market is increasingly becoming important, traceability of these suppliers by the off takers remains a challenge. And for all the sustainable and ethical sourcing of Cassava, the growers themselves remain invisible in the chain, and are therefore unbankable.

Intervention

Since 2016, Musika has supported the commercialisation of the cassava sector in Luapula by Zambian Breweries by providing technical and financial assistance to the company and its intermediaries. Zambian Breweries requires dried cassava chips as a raw material for its low-cost

Eagle Lager beer which is brewed in Ndola. In 2018, Musika supported Zambian Breweries, working in partnership with BanQu, an American based technology firm, to pilot a digital traceability technology dubbed "Pupuka ne Chembe" (meaning "Soar/fly with the Eagle" in Bemba). The partnership provided a platform to digitally trace all the activities of the farmer, from delivery of the crop to when they receive payment from Zambia Breweries.

Results

1 Improved incomes and livelihoods

- By 2020, Zambia Breweries and its aggregators had registered over 5,800 smallholder farmers (including 2,500 women) on the digital platform.
- Over US$900,000 worth of cassava have been purchased from the smallholder farmers using the innovative digital payment system.
- In 2020 Zambia Breweries replicated the innovation in the sorghum value chain in Southern Province where it is working with Silverlands Ranching as an aggregator to document all its small-scale farmers engagement in the sorghum value chain on the platform for easy traceability and transaction.
- A total of 622 Sorghum farmers including 162 women have been registered to date.
- Over 1582.63 Mt of sorghum has been purchased through Silverlands Ranching valued at $287718.8 from over 622 smallholder farmers.
- Enhanced financial education among smallholder farmers.
- In the 2021/2022 farming season Zambia Breweries partnered with the World Food Program (WFP) and Silverlands Ranching under the sorghum program to distribute 590 input packs (Seed, fertilizer, lime and pesticides) through WFP and 2240 seed packs to smallholder farmers through Silverlands Ranching in Southern Province.

5. IMPROVING LAND RIGHTS IN RURAL ZAMBIA

Constraints

Almost 90 per cent of Zambia's land is under customary tenure based on informal agreements while the number of farmers with formal title remain small, at about 4 per cent of the 1.5 million smallholder households, with women inevitably most disadvantaged. The inability to gain formal land rights is a major constraint to economic development. The Ministry of Lands' land registry is overburdened and inefficient, and this, coupled with the high cost of associated fees and surveys, makes the formal land titling process unaffordable and inaccessible to those at the base of the economic pyramid. All these processes disadvantage the smallholder farmers.

The intervention

In 2014, Musika supported Medeem Zambia Limited, a Zambian registered company, to pilot the provision of land rights documentation products and services otherwise known as ParcelCerts to the ''lower end' of the market in Chiefdoms located in Southern, Central and Lusaka Provinces.

Musika provided both logistical and technical assistance and played a crucial role in introducing Medeem to traditional leaders who were committed to advancing land rights for their subjects.

The intervention intended to provide increased land tenure documentation for women land holders and men who included their spouses as co-owners of the registered land. The purpose of increasing land tenure documentation for women was to provide them with the security of tenure as they are mostly at risk of displacement or land grabs, and this includes women who are single, married, disabled and widowed.

To encourage women to register their land, a discount of approximately 20% was given to the first 500 women and co-owners that registered. The action was also one of the ways in which Medeem intended to enhance its gender mainstreaming activities in its operations.

Results

- Reduced land conflicts
- Smallholder farmers have confidence to invest in agriculture production, thereby improving their livelihoods.
- At the end of 2022 Medeem had established 71 active purchase points through the Agro dealer model of which a total number of 17,820 rural smallholders were reached and 11, 212 (39% Women) were engaged.
- There has been noticeable diversification of farm production with farmers investing in poultry and piggery production following investments in housing infrastructure for the livestock.

6. WOMEN IN AGRICULTURE: TRACTORS AND MACHINERY

Constraint

Although mechanization can help reduce time, labor, and drudgery of agricultural production and improve quality of life, female farmers face multiple barriers in adopting mechanization. Barriers to adoption range from technology design to access to credit, land, and information in order to purchase, access, or use the technology. Furthermore, women face intra-household barriers and, in many communities, negative socio-cultural perceptions associated with women using agricultural machinery. While closing the gender gap in women's access to agricultural technology is considered a key strategy for rural women's economic empowerment, there is a real challenge in financing agricultural mechanization. Many financial institutions are unwilling to provide financing to smallholder farmers as they are considered high risk.

The intervention

Musika recognized the need for an intervention that would address these constraints. In 2018, it supported an asset financing company, AgLeaseCo, and an agricultural manufacturer SARO Agri-services, to make mechanisation more accessible to smallholder farmers. Through this partnership, smallholder farmers would access various agricultural machinery from tractors, grain shellers to irrigation equipment on a lease arrangement financed by AgLeaseCo. More specifically, Musika supported the two firms to make two-wheel tractors (TWT) more accessible to women farmers by buying down the lease financing interest.

1. Results

- Smallholder farmers identified new business opportunity such as provision of mechinasation services including tillage and shelling services to others.
- Access to mechanization equipment was appreciated and how it had a direct impact on their productivity and income.
- Through Musika partnership AgLeaseco intervened in six regions– Eastern, Central Copperbelt, North-western, Northern and Southern but has since expanded to all the other regions. The company has leveraged on its rural networks with the traditional leadership (whose structures are involved in recommending the applicants) to target its farmer clients. This engagement has also enabled the company to develop the Ag-services division.
- An estimate of 16,000 farmers have been able to access improved services from the 500 smallholder farmers that have been engaged and accessed farm equipment. 27% of the beneficiaries are women smallholder.
- AgLeaseCo saw a business opportunity in the smallholder market and succeeded in lobbying the government for VAT zero-rated lease rentals on equipment acquired by smallholder farmers.

7. INNOVATING ZAMBIA'S AQUACULTURE SECTOR TO BOOST FOOD SECURITY

Constraints

Developing the aquaculture sector has, in recent years, become a policy priority in Zambia. The government, with its cooperating partners, have made investments to promote and support the participation of small and medium-sized farmers in the aquaculture value chain to improve livelihoods and combat poverty through increased per capita income. The current Technical Education, Vocational and Entrepreneurship Training (TEVET) system in Zambia faces challenges, including developing skills that are relevant to the private sector. There are poor linkages between smallholder fish farmers and the private sector, which create challenges for organizing smallholders to improve input supply, aggregation and sale of their outputs, and for their greater participation in other aquaculture value chain activities. Access to critical inputs such as fingerlings, feed and production knowledge is low, financing opportunities are almost non-existent, and access to markets is difficult given the challenges of the cold chain and distance to market for low volumes of fish. In addition to lack of access to production knowledge, smallholders lack the knowledge and skills necessary to carry out other activities along the aquaculture value chain (e.g., setting up small businesses supplying seed, feed, or other inputs, processing fish, or aggregating production for sale in distant markets) or to seek gainful employment on larger farms, hatcheries, feed mills, retail or wholesale shops and depots, and among others. From the viewpoint of the private businesses engaged in the aquaculture market, there is little understanding of the scope of the smallholder market (e.g., the location of existing fish farmers, their commercial or semi-subsistence orientation, and the extent of demand for products and services) and very little market structure as smallholder farmers are geographically scattered, demand for inputs and other services is fragmented, and output is low and disorganized. There is also very limited understanding by the private sector on how to engage with smallholders to develop their technical education, vocational, and entrepreneurial skills on best management practices, setting up small businesses to provide aquaculture inputs, or process and aggregate fish to supply to more lucrative or distant retail/consumer markets. Component 1 focuses on upgrading the fisheries/aquaculture curriculum (long- and short-term courses), training tools, online training platforms, and internship programs of TEVET institutions in Zambia, namely NRDC but with links to other TEVET institutions to scale the upgraded training "package" over the course of the project.

Component 2 focuses on enhancing the technical education, vocational, and entrepreneurship skills of rural women, men, and youth smallholder commercial fish farmers and increasing their linkages to input/output markets and entrepreneurship opportunities via private sector extension support and services delivery.

Results

- The project partnered with six (6) private firms of which three (3) were primary players i.e. Novatek, Zhongkai and Aller Aqua and three (3) SMEs (Kasakalabwe, Triple C and Hope Ways).
- A total of 21 aquaculture firms were also assessed and this provides a pool of primary firms that the project can in future turn for further private sector engagement.
- A total of seven (7) intermediaries were linked to Novatek in the feed supply chain and two (2) are still pending for linkage with Zhongkai in the integration of cassava in the aquaculture value chain (Distillers Grain) based on the results of the performance of the DG.

- 10 demo ponds (4-Allar Aqua and 6-Zhongkai) established for technology testing and farmers are expected to get some hands-on learning from these sites as the works continue with WorldFish.
- The development of a formal offtake market for fish incentivized the smallholder farmers and provided the drive the farmers needed to upgrade their production through the adoption of improved inputs such as feed and seed.
- A total of 831(25% female) were linked and are accessing different services from partner firms.
- The introduction of the catfish hatchery, the first in the Northern region is expected to provide an alternative fish species and offer smallholder farmers an opportunity to culture more productive fish species.

MUSIKA'S CORE PRINCIPLES

1. **A focus on the market and economic growth -** supports the market to drive a national economic growth trajectory that includes the participation of and economic benefit to the 'bottom of the pyramid'.

2. **Investment risk mitigation –** offers its partners a combination of commercially focused technical advisory services and catalytic financial support to 'kick-start' investment were necessary in new geographies, new business models and new technologies.

3. **Market facilitation and 'honest brokerage' –** has gained a valuable reputation as a trusted and 'honest broker', which provides it with an influential role within the market through which to promote its concept of 'shared value'.

4. **Innovation –** supports multiple actors to test new 'hard' innovations such as new inputs and technologies in the smallholder market, and 'soft' innovations such as digital management systems.

+260 211 253 989

info@musika.org.zm

www.musika.org.zm

Corner of Tukuluho and Pandit Nehru
Roads, Longacres, Lusaka.