SCBF SWISS CAPACITY BUILDING FACILITY
Innovating Financial Inclusion

SCBF 2020-09 **15/11/2022**

Up-scaling of micro loans for solar home systems and solar powered productive use appliances by MPower Ventures AG in Zambia

1. DEVELOPMENT RELEVANCE

Economic and poverty context

The Zambian economy rebounded in 2021, with GDP back on a growth trajectory with a growth rate of 4.6%, compared to a 2.8% contraction in 2020[1]. Following a change of Government in, Zambia has managed to gain trust from investors, restructure its sovereign debt and conclude an agreement with the IMF.

Supported by high copper price the Kwacha has appreciated against the dollar in the immediate aftermath of the election and stabilized in 2022. All of this has helped to keep inflation rates relatively low compared to the global situation. Despite relatively high growth rates inequality remains high with regional disparities. For instance, 37.2% of the population in Luapula province lives in severe poverty, compared to 5.4% in Lusaka.

Zambia also has one of the youngest populations in the world and this is expected to put further pressure on the demand for jobs, health care, and other social services.

Table 1[2]: Population and economic indicators	
Population in million *(2021)*	**18.9**
GDP growth *(2021)*	**3.6%**
Inflation *(2021)*	**22%**
Trade balance (% of GDP) *(2021)*	**18.6%**
Foreign direct investment (net) (% of GDP) *(2021)*	**-1%**
Net ODA received (% of GNI) *(2021)*	**5.8%**
Remittances received (% of GDP) *(2021)*	**0.7%**
Economic Freedom Index[3] (Rank among 186 countries) *(year)*	**154**
Poverty indicators	
GDP per capita (USD) *(2021)*	**1120.6**
Gini Index (0= equality 100= inequality) *(2021)*	**57.1**
International poverty rate (*2021;* at 1.90 USD/day)	**61.4%**
National poverty rate *(2021)*	**54.4%**
National rural poverty headcount rate *(2021)*	**n/a**

Figure 1: Governance indicators chart[4], *(Zambia, 2021)*

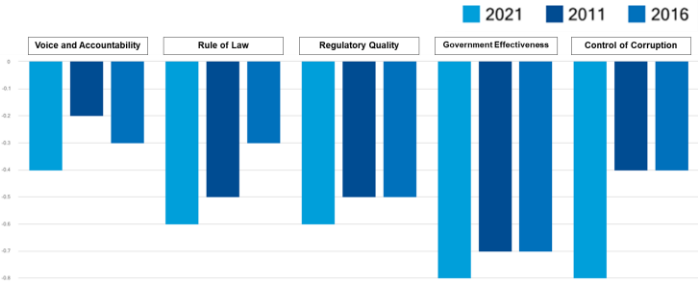

Figure 2: Multidimensional poverty index chart[5], *(Zambia, 2018)*

Subnational region	MPI of the country	Multidimensional poverty by region: Multidimensional Poverty Index (MPI = H*A)	Headcount ratio: Population in multidimensional poverty (H)	Intensity of deprivation among the poor (A)	Vulnerable to poverty	In severe poverty
	Range 0 to 1	Range 0 to 1	% Population	Average % of weighted deprivations	% Population	% Population
Central	0,232	0,249	51,24	48,52	25,99	22,21
Copperbelt	0,232	0,124	27,89	44,48	21,84	8,53
Eastern	0,232	0,322	64,72	49,70	21,66	30,71
Luapula	0,232	0,347	66,67	52,12	19,65	37,19
Lusaka	0,232	0,085	19,48	43,66	25,14	5,42
Muchinga	0,232	0,289	59,02	48,98	26,53	26,64
Northern	0,232	0,329	66,57	49,50	20,87	31,73
North-Western	0,232	0,253	54,13	46,77	25,73	21,13
Southern	0,232	0,213	46,24	46,10	29,20	16,28
Western	0,232	0,339	67,79	50,05	21,65	37,66

Financial sector context

At the beginning of 2017, Zambia's banks accounted for about 69 percent of total financial sector assets, with the majority of banks being foreign-owned and accounting for 83 percent of total banking assets. On the other hand, the non-bank financial institutions (NBFI) sector was dominated by pension funds (72 percent of NBFI

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1 The World Bank Group (*2022*). The World Bank in Zambia. Washington, DC. https://www.worldbank.org/en/country/zambia/overview#:~:text=Economic%20activity%20has%20remained%20positive,a%20healthy%20current%20account%20surplus. Accessed (*07/11/2022*)

2 The World Bank Group (*2021*). World Development Indicators database. Washington, DC. http://data.worldbank.org. Accessed (*07/11/2022*)

3 Heritage Foundation, (*2022*) Index of Economic Freedom, http://www.heritage.org/index/ranking Accessed (*07/11/2022*)

4 The World Bank Group (*2022*). Worldwide Governance Indicators database. Washington, DC. http://databank.worldbank.org. Accessed (*07/11/2022*)

5 Oxford Poverty and Human Development Initiative (*2022*). Global Multidimensional Poverty Index Databank. OPHI, University of Oxford. http://www.dataforall.org/dashboard/ophi/index.php/mpi/country_briefings Accessed (*07/11/2022*)

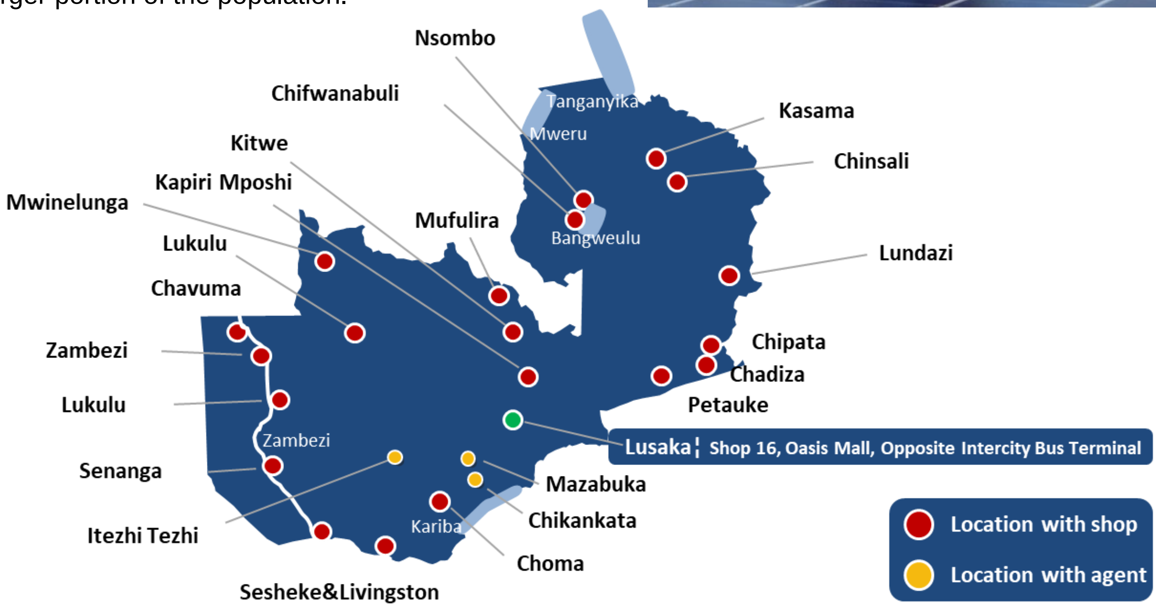
assets), of which the government-led National Pension Scheme Authority (NAPSA) accounted for 67 percent. Microfinance institutions (MFIs) - both deposit-taking and non-deposit-taking - accounted for 10 percent of NBFI assets, and insurance companies for 7 percent.[6]

Financial inclusion has progressed in recent years. Financial inclusion in urban areas stood at 83.3% and rural financial inclusion at 56.9% in 2020, up by 13.5% and 6.8% compared to 2015 respectively. The financial sector has also become more formal with formal financial inclusion increasing from 38.2% in 2015 to 61.3%. Zambian adults are most likely to have or use electronic payment or money transfer services and /or savings services, whose uptake increased to 48.7 percent and 54.8 percent from 36.8 percent and 32.5 percent, respectively, in 2015. However, access to credit services, declined to 21.8 percent from 22.3 percent in 2015. The usage of pension and insurance services improved slightly to 8.2 percent and 6.3 percent from 3.8 percent and 2.8 percent, respectively[7].

Financial Sector Partner

MPower Zambia is a local affiliate of MPower Ventures AG and managed by a highly experienced team with a strong background in financing, solar and electronics in Zambia. MPower Zambia addresses the pressing challenge of energy access and financial inclusion and empowers under-electrified rural and semi-urban communities in Zambia by providing financing, quality solar systems and a software solution. MPower Zambia works on a B2B2C basis with local companies and sales agents, offering them access to cost-effective financing, state-of-the-art software to optimise their activities and supplies high-quality solar products at affordable prices.

Climate Management is a non-financial institution which focuses on providing people with sustainable solutions, with its in Lusaka, Zambia. Climate Management and MPower Zambia have worked together since 2018 they include a microfinance package in its offering which allows end customers to pay for the products over an extended period ranging from 12 to 36 months, making products accessible to a larger portion of the population.



6 Ministry of Finance (2017). National Financial Inclusion Strategy https://www.boz.zm/National-Financial-Inclusion-Strategy-2017-2022.pdf Accessed (*07/11/2022*)

7 Finscope (2020). 2020 Survey Report https://www.boz.zm/FinScope-2020-Survey-Report.pdf Accessed (*07/11/2022*)

2. INTERVENTION APPROACH

Capacity building needs

MPower conducted an in-depth market study looking at the rate of energy access and financial inclusion in sub-Sahara Africa and examining the relation and impact of two factors on the economic development of rural areas. MPower worked with different local institutions as financial partners, and identified several shortcomings in their ability to serve financially excluded communities. Therefore, MPower Zambia wanted to set up its own lending operations and started a pilot project that was scaled up with this SCBF grant.

Main activity areas (goals, targets, resources & time frame) and outputs

The three main activities that were expected throughout the intervention were: 1. Increase Accessibility, 2. Credit Risk assessment, and 3. Sensitization campaign. All of which were accomplished. MPower had planned to expand its reach at a higher speed, the main set back being Covid-19 which affected distribution channels as well as sale activities due to health restrictions which took time to recover from.

This meant that the outreach that was expected was not accomplished in its entirety, nonetheless we saw other opportunities by working with SILC groups which helped us to speed up distribution processes and ensure we have acceptable repayment rates.

During the process we have also trained four main lending agents and set up and improved processes related to sales, controlling and recovery. For this we have trained a local financial controller.

3. RESULTS ACHIEVED AND NOT ACHIEVED

Client level

Although there were several setbacks that we could not have predicted, such as Covid-19 we managed to catch up on many goals this last year and continue to see this growth in what remains of the year.

The major constraint that we saw from Covid-19 resulted in low stock levels for a few months, slowing down the intervention. On top of the low stock levels, there were restrictions for large gatherings and general movement between locations. Due to the situation, we opted to focus on training the team that would be pushing for the intervention when the situation was more under control. We saw that it was particularly important that the sales agents and the team involved in the intervention fully understood the processes and offerings as clients would usually call once or twice within the first two instalments to clarify diverse doubts that would arise. This is why the internal financial literacy of the sales agents was monitored and we saw it go up, having an average mark of 92% compared to an 85% done in the earlier stage of the project.

We have seen how various aspects have become more and more fluid in the past four months with higher traction and more organic growth with customers within the communities that we reached out to in the past seven months. There has been visibly a growth with word-of-mouth marketing and people seeing the products being used by their neighbors, friends, and family. In the last months, we saw our biggest growth yet with 250 sales within two months. The communities that we reached have expressed their satisfaction with the products, making certain activities in these communities safer than before as well as easing other activities for them and have also asked for a larger range of products. One example is in Kafue where the community now meets in the evenings at the house where a flood light has been placed, this allowed them to hold longer activities in the evening as well as to safely return to the neighboring houses. On the other hand in Chipata, there was a positive response around the electric sprayer as it made a crucial part of their work significantly easier and faster. Following the first sales, there was a rapid rise in the people's interest from people that had already acquired other products from us. In the more recent months, our expansion into groups in the north of Lusaka and the south resulted in high numbers of requests specifically for lighting systems from both individuals as well as small business owners.

About the traction, we increased our monthly sales by more than 200% (considering until October) this year in comparison to the previous half. Furthermore, we saw an increase in our female customers, comparing our 24% of women in 2021, to 45% of women in 2022 (until October). This trend can be mostly attributed to the groups that we were approaching as we increased our focus on rural areas and pushed for outreach through the SILC groups (saving groups). We saw women being more involved in all the processes starting with financial literacy and ending with sales. As we began approaching the SILC groups we also got feedback from the SILC group leaders that more and more people wanted to learn more about it and began looking into the financing possibilities and the saving options that were not as interested in before. The SILC group leaders said that they hoped to see long-lasting positive results not only with our products but with people's interest in saving (Financial literacy). The general opinion about the products was positive as people mostly liked the idea of having a one-year warranty, given that the investment is large and they have had the unfortunate experience of faulty products from other unknown companies. In comparison to 2021, the default rates from the new customers went down.

Financial Sector Partner/s level

The biggest change that was seen from the SCBF intervention was the increase in outreach to very poor, poor, or low income people particularly those in rural areas. The outreach to segments of the population grew from 2% of the total sales to more than 15%. Of which we expect to see these percentages to continue to grow in the coming years. We led introduction activities and explained the various payment possibilities and the general financial education as well as sensitization campaigns and training on solar energy products. Mobile payments were difficult to enforce with people from more remote areas as people continue to be hesitant about this form of payment as well as the fact that it also requires for them to reach a place where there is stable network signal. This resulted in the rural communities organising themselves and setting one person as the target person that would collect all of the money and would go to the place where the mobile transaction would be done.

As people began to organise themselves as a group we also saw the repayment rates increase and we saw more people making advance payments than previously in the intervention. This trend resulted in a lower number of mobile payment customers as one person would be making the payment for up to 12 people at a time. We currently have the majority of the payments done through mobile money but we saw that people were more comfortable using payments through Airtel Money and similar services instead of using Tilt, a provider that would have allowed us to automatically link a customer to a payment. The hesitation from the customers came primarily from the fact that since they had not used it nor heard of it they did not feel it would be safe as they were not used to using it.

4. LESSONS LEARNT

Conclusions

At the beginning we had a limited set of products that we were looking to offer during the intervention as we reached out to the communities, we saw that a larger range of our products would be beneficial to the people and in some instances they were the ones asking about other products. After this we revised the products in order to offer a fuller list that would offer a larger range of products that would cater to various different needs within the communities that we were reaching out to. In future interventions it would be beneficial to deeper understand the needs of the target audience to have the possibilities to offer them the products that would best serve their needs.

Another aspect that we saw was necessary was having one person that would oversee the sales to this particular group of people as this segment required a closer follow up as well as a local person that would serve as the project controller. The difference after this person was on boarded to the project was massive as more decisions that needed to be taken right away were able to be attended on a smother manner.

Finally, most of the complex technological solutions did not work properly in the end. This applies to Tilt which is an innovative payment company that works with multiple mobile money companies and has a system to assign unique codes to transactions. The system was too complex and not received well by the customers. Same applies to the data-based risk assessment. While we have been able to get certain patterns, overall the value has been very limited.

MPower has also learnt a lot about the function and process of SCBF. In hindsight, this project should have probably been implemented as a feasibility study rather than an upscaling project.

Recommendations

The critical success factors for this project can be summarized in three points:

- Strong local ownership with clear responsibilities
- Adapting to the habits of the target customers
- Simplicity of process is key in a rural environment

We have initially probably focussed too much on technological solutions like automated credit risk assessment and novel payment providers. Adoption was poor and therefore the value of the technology very limited.