



Techno-Links Impact Assessment Study

Summary Report | Carl Asuncion | Dec 2018

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1 INTRODUCTION

This report presents findings of the impact assessment study that MEDA commissioned to understand the sustainable impacts of one of its past projects. Based on the selection criteria¹, the Techno-Links (TL) project was selected for this study. The TL project was in operation from 2011 to 2014 and aimed to increase the incomes of rural men and women entrepreneurs in Nicaragua, Peru, and Zambia by improving their access to agricultural technology and financial products and services.

1.1 Research questions

Three main research questions framed this study:

1. Have clients' economic situation improved, stayed the same, or deteriorated since the close of the TL project?
2. What are the success and constraining factors that contributed to clients' existing economic situation?
3. To what extent was the project efficient (measured by BCR) in producing desired results?

1.2 Project background

The TL project had two main components: TL for Market Linkages (Nicaragua, Peru) and TL for Financial Services (Nicaragua, Zambia), as well as a gender consultancy in Peru. The Market Linkages component provided financial and technical support to 20 small and medium enterprises (SMEs) to establish commercial distribution of agriculture technologies suited to small entrepreneurs (SEs). The Financial Services component focused on increasing the capacity of a microfinance institution in Nicaragua (MiCrédito) and a mobile transaction company in Zambia (Zoono). The project built the capacity of these companies to help them provide innovative financial products and services to their customers. In Peru, the project supported four organizations to integrate gender concerns into their business operations.

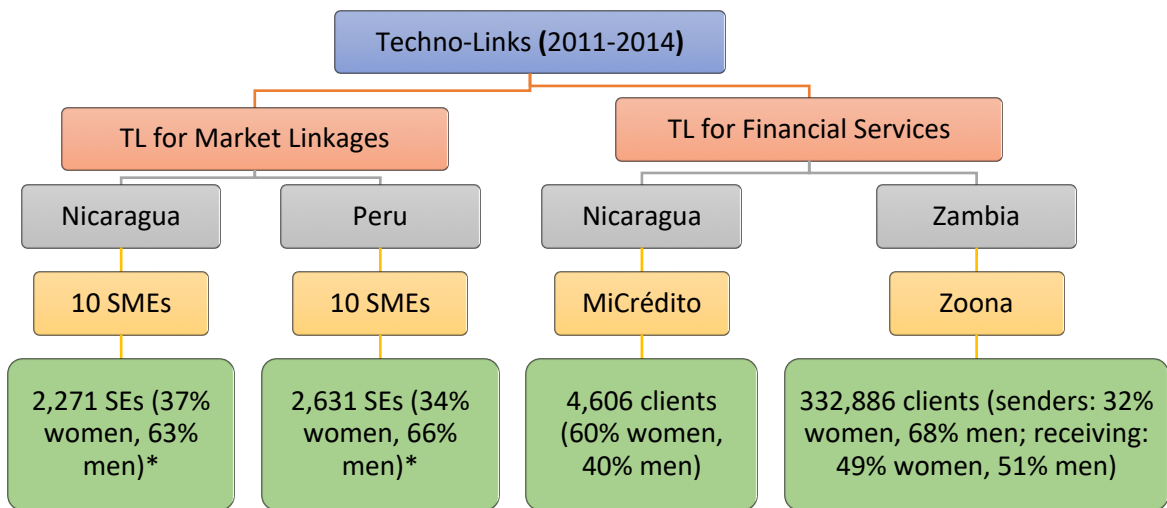
The project exceeded its targets by reaching almost 5,000 SEs in Peru and Nicaragua (2,631 SEs in Peru and 2,271 SEs in Nicaragua) and close to 340,000 individuals in Zambia and Nicaragua (332,886 clients in Zambia and 4,606 clients in Nicaragua).

¹ The project advisory committee agreed on the following criteria when selecting a project for the impact assessment study:

1. The project must have reached more than 2000 clients;
2. The project must fit the "Business to the power of 2" strategy;
3. MEDA must have an existing project in the country or have contact with local partners;
4. The project budget must have been more than CAD \$5 million; and
5. The project must have been completed at least 3 years ago.

The project targeted 235,252 rural women and men SEs and SMEs in Nicaragua, Peru, and Zambia. By the final year of the project (2014), the project exceeded its targets by reaching almost 5,000 SEs in Peru and Nicaragua (2,631 SEs in Peru and 2,271 SEs in Nicaragua) and close to 340,000 individuals in Zambia and Nicaragua (332,886 clients in Zambia and 4,606 clients in Nicaragua). Figure 1 is a schematic of the project design, intervention areas, focus countries, key partners, and the actual number of clients reached through the TL project.

Figure 1: TL project design, interventions, countries, key partners, and actual client counts



*The sex disaggregation of clients for TL for Market Linkages are based on the end line survey (n=43 in Nicaragua, n=32 in Peru).

The TL project was supported by the Canadian International Development Agency (CIDA), now Global Affairs Canada (GAC), and the Inter-American Development Bank (IADB). The overall project budget was USD \$6,805,108. GAC contributed USD \$1,595,210 (CAD \$1,722,827), IADB contributed USD \$1,129,621, developing country partners contributed USD \$3,567,531, and MEDA contributed USD \$512,746.

2 STUDY METHODOLOGY

This study gathered primary quantitative and qualitative data from eight SMEs and 46 SEs in Nicaragua in February of 2018. This study also conducted remote interviews with MiCrédito and supplemented all data with secondary research. To determine the projects’ efficiency in producing desired results, this study received financial performance data from seven Nicaraguan SMEs. Financial performance data for MiCrédito and Zoono was obtained from Sarona Asset Management (i.e. Sarona). Impact of the TL project on SME and SE clients focused on changes to their incomes, assets, and business capacity following the project objectives and MEDA’s corporate key performance indicators (KPIs). Table 1 presents the tools used to assess the impact of the TL project along with the respondents.

Table 1: Tools and respondents of the impact assessment study

Tool	Market Linkages	Financial Services
Quantitative 1. SE survey 2. Poverty Probability Index (PPI) 3. SME financial statements	1 & 2: Nicaraguan SEs 3. Nicaraguan SMEs	3. MiCrédito, Zooná
Qualitative 4. Focus group interview 5. Key informant interview 6. Review of documents	4. Nicaraguan SEs 5. Nicaraguan SMEs 6. Nicaraguan clients	5. MiCrédito 6. MiCrédito, Zooná

3 FINDINGS

3.1 Nicaraguan small and medium enterprises

Participating SMEs in Nicaragua experienced sustainable increases to their gross income, net income, value of assets and savings, clients, and employees. Between the start of the project (2012) and the end of the one-year contract period (2013), all indicators but net income increased, on average, between 13% and 171% across all SMEs. Between 2013 and the impact assessment study (2018), all indicators went up, on average, between 89% and 400%. Table 2 presents the results for all indicators while figures 2 and 3 show net income and the value of assets and savings of participating SMEs, respectively.

Table 2: Average change across impact KPIs for Nicaraguan SMEs

	Gross income	Net income	Assets & savings	Clients	Employees
%Δ 2012-13	56%	-65%	13%	171%	53%
%Δ 2013-17	108%	92%	108%	400%	89%

Incomes of participating SMEs tended to increase because the TL project helped create new markets and income streams for SMEs, supported the development of new products and services by building SME capacity, and increased the visibility and recognition of SMEs domestically and internationally. Assets purchased by SMEs were typically to process more materials, improve packaging to transport more product, and construct new storage facilities to increase the shelf-life of products. These changes helped SMEs expand their customer base and become more profitable and sustainable regardless of the climate change challenges they all expressed.

Figure 2: Net income of Nicaraguan SMEs

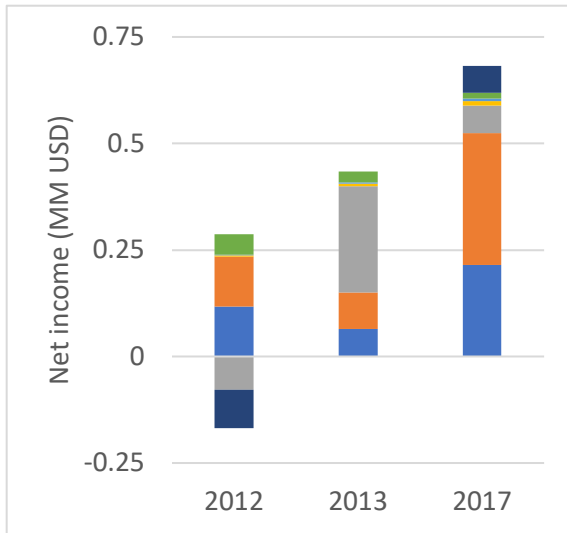
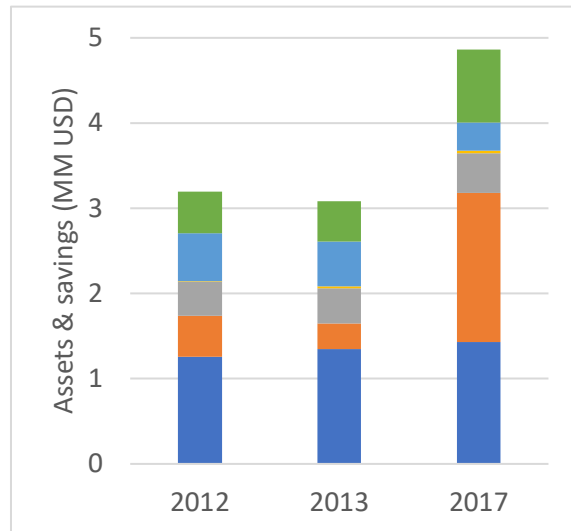


Figure 3: Value of assets and savings of Nicaraguan SMEs



3.2 Nicaraguan small entrepreneurs

SEs in Nicaragua experienced long-term increases in incomes, value of assets, savings, and business capacity despite battling negative effects of climate change during and after the TL project. About two-thirds expressed sustained increases in income between the end of the project (2014) and 2018. SE discussions highlighted new income streams, like agritourism and teaching opportunities, that the project allowed them to develop. Similarly, over half (55%) reported sustained increased savings during the same period (figure 4). The project also helped SEs improve their homes (figure 5). By the end of the project, half lived in a house with three or more rooms where only a third made that claim before the project. Likewise, SEs in the project became more connected with all SEs owning phones by 2017. At the start of the project, a quarter of SEs had no cell phones, an essential business asset that connects them to markets and information. This is especially important given two-thirds of SEs reported sustained access to markets. However, SEs stated that farmland was the asset that benefitted most from the project through everything they learned about maintaining the long-term health of their land.

About two-thirds (of SEs) expressed sustained increases in income between the end of the project (2014) and 2018.

Figure 4: Expressed changes in incomes and savings of SEs in Nicaragua

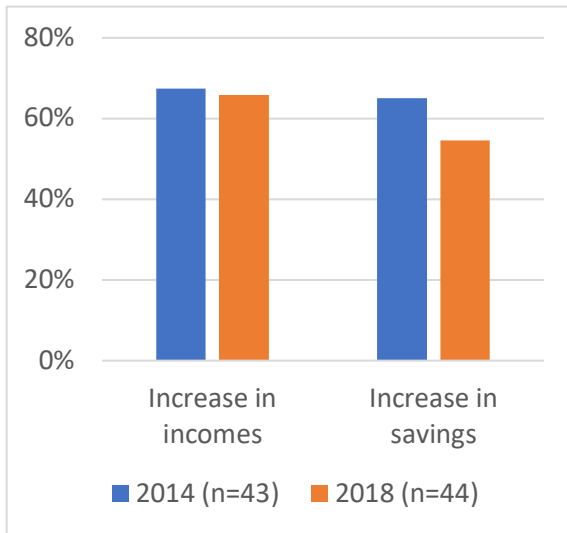
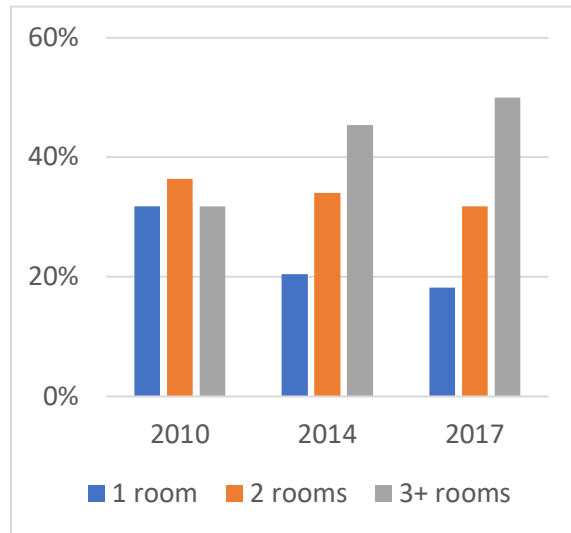


Figure 5: Changes to the houses of SEs in Nicaragua



Finally, the TL project helped reduce the likelihood of SEs living in poverty. Using the Nicaraguan PPI survey² to determine the likelihood of SEs living in poverty before the project, at the end of the project, and in present day, this study found that these SEs went from a 94.4% probability of living below the poverty line at the beginning of the project to 86.2% in 2014 and 2017. The project clearly reached SEs who were very likely to be poor at the start of the project and improved their livelihoods sustainably.

3.3 MiCrédito and Zooná

MiCrédito and Zooná experienced long-term increases in gross revenue, value of assets, clients, and employees. They differed in net income where MiCrédito experienced positive changes in net income during the project and after it was completed. Zooná experienced the opposite reporting decreases in net income during the same periods.

MiCrédito experienced most growth across these KPIs during the project (table 3). Their biggest changes were in gross revenue (240%) and net income (1141%). The TL project supported these positive outcomes by helping MiCrédito diversify their products and services, expand their Points-of-Sale locations through a strategic partnership with Banco de América Central, and improve internal processes to serve clients faster and more effectively.

² The PPI is a survey of 10 questions about a household's characteristics and asset ownership. The responses to these questions are scored to determine the likelihood a household is living below the poverty line.

Table 3: List of MiCrédito KPIs

	Gross revenue	Net income	Assets	Clients	Employees
%Δ 2011-14	240%	1141%	87%	67%	138%
%Δ 2014-17	129%	26%	100%	37%	38%

Zoona varied more and reported greater increases in gross revenue, clients, and employees during the project (table 4). Net income and value of assets changed more after the project where net income decreased by 2166% and the value of assets increased by 435%. One factor that explains the decrease in net incomes is the expansion of their agent network to rural areas of Zambia during the project as well as Malawi and Mozambique after the project was completed. The TL project made this growth possible by helping Zoona develop and implement a new agent training program, strengthen their agent network by equipping high performing agents with smartphones, and helping them gather and analyze customer data more proficiently. Figures 6 and 7 illustrate the net income and the value of assets of MiCrédito and Zoona, respectively.

Table 4: List of Zoona KPIs

	Gross revenue	Net income	Assets	Clients	Employees
%Δ 2011-14	423%	-161%	144%	390%	194%
%Δ 2014-17	167%	-2166%	435%	81%	129%

Figure 6: Net income of MiCrédito and Zoona

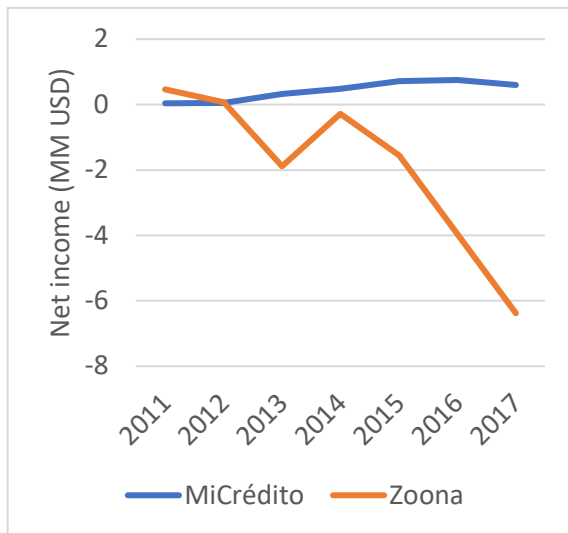
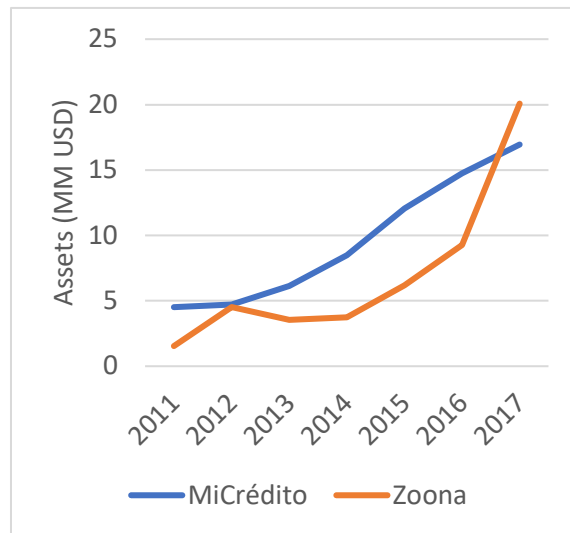


Figure 7: Value of assets of MiCrédito and Zoona



3.4 Gender equality

Review of secondary data shows that the TL project was successful in promoting gender equality across companies and targeted communities. Some anecdotal results are presented below.

Community impacts	Institutional impacts
<ul style="list-style-type: none"> • Increased control and decision-making power, including over the use of family incomes which has led to more money being invested into the home. • Decreased levels of domestic violence because respect for women rose and men became more aware of sexism in their community. • Increased engagement in non-traditional roles where women got more involved with their crops and handicrafts and men started helping with household chores and child care. • Increased women leadership because women became more confident. Some women even planned on running in municipal elections. 	<ul style="list-style-type: none"> • Increased women in leadership positions because gender equity was institutionalized in core values and with new business policies. • Women’s Committees were institutionalized and provided with resources to pursue market opportunities. • Enhanced gender sensitive company culture improved communication between women and men staff which increased the efficiency of their work. • Strengthened supply chain with more committed producers.

3.5 Financial assessment

This study verified that the TL project was worth undertaking using benefit-cost ratios (BCR)³. These were calculated with SME financial performance data. This study defined benefits as the total gains on investment across income, assets, or savings, and costs as the total project costs of implementing the project.

$$BCR = \frac{\textit{Benefit} (\Delta \textit{in incomes, assets, savings})}{\textit{Project costs}}$$

The resulting ratios show that benefits outweigh costs in the long run (table 5). This study found that the Market Linkages initiative had a BCR of just over 4 by 2017, up from only 0.42 in 2013 or the end of the project. This means that for every dollar spent on the Market Linkages initiative in Nicaragua, SME clients accrued about four dollars by 2017.

For the Financial Services initiative, this study assessed MiCrédito and Zoona individually. The BCR for MiCrédito in 2017 was over 48, up from approximately 17 in 2013. This means that every dollar spent on MiCrédito resulted in a 17 dollar increase in benefits by the end of the project and 48 dollars by 2017.

³ This study explored the Return on Investment (ROI) metric but found the BCR better suited to MEDAs work. MEDA invests in companies to help them grow and provide better products and services for their clients. The BCR keeps the focus on the benefits experienced by the companies MEDA works with instead of the rates of return. Other development organizations (e.g. TechnoServe) also use BCR but call it ROI.

Every dollar spent on MiCrédito resulted in a 17 dollar increase in benefits by the end of the project.

Zoona had a BCR of -2 in 2013 but it rose to over 16 by 2017. In sum, all partnerships were worthwhile investments that generated positive returns long-term.

Table 5: BCRs calculated for the TL project

	2012-13	2012-17 (in 2014 USD)
Nicaraguan SMEs	0.42	4.09
MiCrédito	16.78	48.47
Zoona	-2.11	16.11

SEs were excluded because samples interviewed during the project and during the impact assessment study were not statistically significant. This means any results obtained from these SE groups cannot be used to represent the entire SE population impacted by the project.

4 CONCLUSIONS

The following are succinct answers to each of the main research questions based on the study findings.

1. Have clients' economic situation improved, stayed the same, or deteriorated since the close of the TL project?

The economic situation of Nicaraguan SMEs involved in the Market Linkages initiative continued to improve after the completion of the TL project in 2014. This study found that gross incomes, net incomes, assets and savings, customers, and jobs all increased sustainably.

SEs surveyed in Nicaragua also experienced positive long-term impacts from the TL project. Incomes, savings, assets, and business capacity all increased while poverty levels decreased sustainably.

MiCrédito and Zoona mirror the sustained improvements across all KPIs experienced by SMEs in Nicaragua. The only exception is Zoona's net income which decreased during and after the TL project.

2. What are the success and constraining factors that contributed to clients' existing economic situation?

Climate change was the biggest constraining factor mentioned by SMEs and SEs interviewed during this study. New markets and income streams supported by the project helped participating SMEs and SEs withstand this challenge. Some companies were boosted by the government focus on environmental sustainability and best practices resulting from their response to climate change.

3. To what extent was the project efficient (measured by BCR) in producing desired results?

The TL project was an efficient investment in the long-run. While not all BCR results seemed favourable by the end of the project, all proved to be worthwhile investments by 2017 with BCRs ranging from 4 (Nicaraguan SMEs) to 48 (MiCrédito).

