SCBF 2017-09 **December 2019**

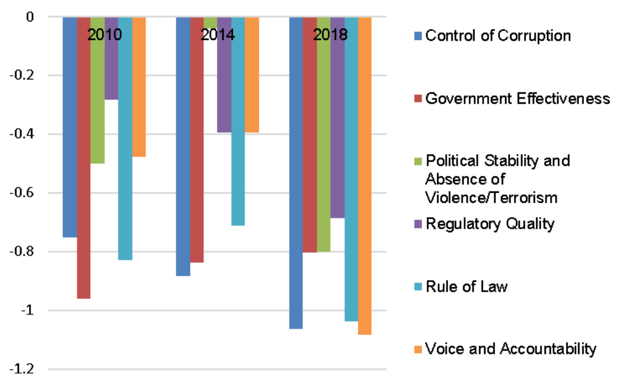
Promotion of appropriate credit for access to low-pressure irrigation technologies for small producers of high-yield crops by Financiera FUNDESER S.A. in Nicaragua

1. DEVELOPMENT RELEVANCE

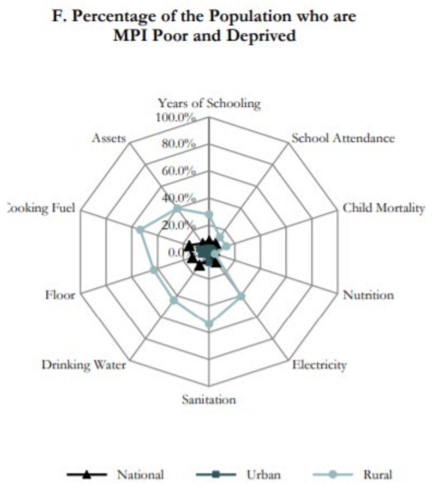
Economic and poverty context: Nicaragua is one of Latin America's least developed countries, and the political protests and violence that began in April 2018 and lasted throughout much of the remainder of 2018 have taken an economic toll, resulting in job losses and reduced consumer and business confidence. After growth of 4.6 and 4.7% in 2016 and 2017, respectively, the economy contracted 3.8% in 2018, and is expected to fall to -5% in 2019, and slowly recover to 0.6% in 2021. General poverty dropped from 29.6 to 24.9% from 2014 to 2016, and extreme poverty declined from 8.3 to 6.9% over the same period, according to the 2016 Standard of Living Survey by the National Development Information Institute. However, recent data from the World Bank Macro Poverty Outlook indicates that poverty is estimated to increase by more than 3 percentage points between 2016 and 2019 based on projected growth of GDP per capita. This summary description is condensed from the World Bank Group Nicaragua country context.[iii]

Table 1[i]: Population and economic indicators	
Population in million *(2018)*	6.5
GDP growth *(2018)*	-3.8%
Inflation *(2018)*	4.9%
Trade balance (% of GDP) *(2018)*	-9.3%
Foreign direct investment (net) (% of GDP) *(2018)*	2.7%
Net ODA received (% of GNI) *(2017)*	4.2%
Remittances received (% of GDP) *(2018)*	11.5%
Economic Freedom Index[ii] (Rank among 186 countries) *(2019)*	57.7
Poverty indicators	
GDP per capita (USD) *(2018)*	2,028.9
Gini Index (0= equality 100= inequality) *(2014)*	46.2
International poverty rate (*2014;* at 1.90 USD/day)	3.2%
National poverty rate *(2016)*	24.9%
National rural poverty headcount rate *(2014)*	50.1%

Governance indicators chart[1], ***(Nicaragua, 2010-2018)***



Multidimensional poverty index chart[1], ***(Nicaragua, 2017)***



Financial sector context: The environment for microfinance has become considerably more difficult in Nicaragua since the start of this project, largely due to significant political unrest leading to a reluctance for farmers to invest. While microfinance interest rates were already high at around 28-30%, the uncertain political and economic context meant the smallholder farmers targeted by this project were largely unwilling to take on the financial risk of a high cost loan. As a result, the business model that was originally anticipated of providing micro-loans through FUNDESER to smallholder farmers for drip irrigation became untenable. We therefore concluded in summer 2019 in consultation with SDC staff that microfinance was no longer an option, and we had to find a new way to provide credit to farmers.

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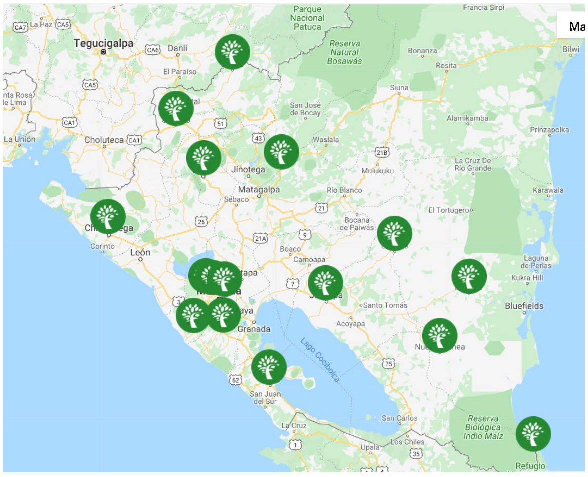
Partner financial institution/s: Our partners in this project were FUNDESER Foundation (an NGO) and Financiera FUNDESER (an MFI). Financiera FUNDESER has operated since 2014 and is owned by FUNDESER Foundation and five specialized microfinance investment funds. It offers financing to small producers and companies, largely focused on trade, agriculture, and livestock, which comprised 92.04% of their total loans in the first half of 2019. They have 45.3M USD in assets, and their current rating is C (Fitch Ratings). They are the third largest of four microfinance institutions in Nicaragua, with a 20.95% share of total assets in the sector, which represents 0.67% of the national financial system's assets. Their operations have been highly affected by the political crisis and they defaulted on several financial commitments in late 2018, leading to debt restructuring with international creditors. They recorded a year-on-year decrease of 15.55% in their gross portfolio and a 11.97% decrease in their total balance in the first half of 2019. Fitch Ratings forecasts accumulated losses in 2019, with high business risks unlikely to substantially improve. As a result of the nation's political crisis and the resultant effects on both farmers and FUNDESER, this partnership was effectively discontinued toward the end of the project. Data in this section is taken from Fitch Ratings.[iv]



Financiera FUNDESER branch network, Nicaragua

2. INTERVENTION APPROACH

Capacity building needs: iDEal is a social enterprise and has operated in Nicaragua since 2010 selling affordable quality drip irrigation systems to smallholder farmers on a cash basis. To date, we have sold 4,703 drip systems to farmers. Our original project approach was to design a microfinance product for smallholder farmers to finance innovative drip irrigation systems for specific crops, in order to make the benefits of drip irrigation more widely available to smallholder farmers. Key benefits of drip irrigation are increased crop yields and decreased water usage, especially critical in Nicaragua due to the growing local water crisis. The key scaling constraint of FUNDESER is that the current social instability has created a high-risk operating environment, inhibiting economic growth.

Main activity areas (goals, targets, resources & time frame) and outputs: Once it became clear that our original model would not work in this new context, we searched for alternative solutions. To create additional incentive for Fundeser agents to promote the credit product, we finalized an agreement in May 2019 with Fundeser whereby credit officials would get a 5% commission on sales. However, to date this has not resulted in any sales. In June 2019 we allied with the NGO Kolping, which gives credit to smallholder farmers at an interest rate of 3%. Kolping pays iDEal for the systems upfront and is paid back by farmers over the course of a year. To date, 6 farmers have accessed credit for iDEal irrigation systems through this channel.

We also facilitated voucher discounts provided through MEDA's Tecnolinks+ project funded by Global Affairs Canada. These cash-like vouchers can be applied directly against the cost of an iDEal irrigation system, thus reducing the overall cost for farmers. We organized events to promote iDEal's irrigation systems, together with both the MEDA vouchers and the opportunity to finance the balance of their payments through the Fundeser financial product. We held 15 events resulting in 13 sales to farmers by early January 2020. However, while these farmers took advantage of the voucher opportunity, none of them chose to finance the balance of the system cost.

3. RESULTS ACHIEVED AND NOT ACHIEVED

Client level: As a result of the deterioration in the political situation in Nicaragua, and due to concerns regarding staff safety, iDEal suspended operations from August – October 2018, as was communicated to SCBF at that time. Upon resuming operations in late 2018, we found the cautious investment attitude of farmers and the challenging conditions for microfinance meant the project as initially conceived could no longer be successful, and we had to significantly pivot from our initial concept in order to provide any meaningful benefit to smallholder farmers. We conducted a situation assessment during a field visit from Urs Heierli in June 2019, and came to the following conclusions:

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1. We should drop the idea of providing micro-loans to farmers given the current interest rates. This opinion was shared by our partners at FUNDESER Foundation and SDC staff.
2. During this field trip, we revived an earlier partnership with FRUTCO – a Swiss company who has invested in a passion fruit processing plant and established a 20-hectare passion fruit model farm in Nicaragua. During the political turmoil, this farm was occupied by invaders who destroyed most of the equipment. However, in June 2019, FRUTCO decided to continue moving ahead with their processing plant, and we established a cooperation agreement with FRUTCO wherein iDEal Tecnologias would organize small farmers, provide them with technical advice and the equipment needed to grow passion fruit (seedlings, drip irrigation, poles and wires), and establish collection centres for aggregation of produce and bulk collection by FRUTCO.
3. Through this model, we will provide in-kind financing to farmers, where they are provided with the above-noted start-up equipment (seedlings, irrigation, poles, wires) after making an initial down payment, and the balance of the equipment costs are deducted from their passion fruit payments at harvest on a per-tonne basis, repaid over approximately three years. Pre-financing investments is the only way that small farmers can participate in a high value crop value chain, and this instalment payment plan provides a financing solution for farmers where microfinance has failed. We also intend to test subsidizing the down payment for the first group of farmers, to lower the perceived risk of entry for farmers.
4. These collection centres will play a critical role by also serving as a hub for technical assistance, and for collection, grading and storage, as passion fruit is extremely perishable. The centres will have a bookkeeping system to track each farmers' deliveries and quality for accurate payment to each farmer based upon their individual deliveries.
5. The overall project model is designed to be profitable but requires initial investment in the form of farmer financing and an operating loan for iDEal. Once the initial collection centres reach profitability, we will use the earned revenue to establish new collection centres. There may also be an ongoing need for farmer financing, which we will assess as we go forward.
6. To raise this initial investment, we submitted a proposal for a Public-Private Development Partnership program to SDC, but unfortunately it was declined due largely to new funding restrictions at SDC. We are currently in discussions with FRUTCO to co-finance this initiative.

Our current proposal based on the expected finance, we will be able to raise funding to start with two collection centres (50 farmers in total) in the first two years, and to expand as is feasible based on the profitability of the existing collection centres, farmer interest, and FRUTCO's demand for passion fruit. In a best case scenario, we foresee ultimately expanding up to 32 collection centres with more than 800 farmers, subject to testing and iterating the model to ensure it is profitable, sustainable, and that everyone is benefiting – iDEal, FRUTCO, and most importantly farmers. This will, however, take some time, and a faster expansion could be too risky, especially given the still fragile political stability.

Client profile: Julio Hurtecho is a 39-year-old smallholder farmer from Belen, in the southern Nicaraguan department of Rivas. Julio rents a 3-hectare farm and cultivates plantains, papaya and tomatoes. In October 2018, he received a loan through the microfinance institution Fundeser for the purchase and installation of a micro-irrigation system from iDEal Tecnologias for 1.8 hectares of plantains.

Without access to credit, this investment would not have been financially possible for Julio. It has already yielded great dividends. Before, Julio was irrigating through gravity, inundating whole of his field and working non-stop for seven days a week during the dry season. Now, with iDEal's irrigation system installed, he can save at least one day of labour per week and his yields have considerably increased. Each tree now harvests bunches of 35 to 45 high quality plantains; previously, his yields did not exceed 35 plantains per bunch. This increase in the quality and quantity of his harvest resulted in an approximately 20% increase in income for Julio.

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4. LESSONS LEARNT

The project was not implemented as planned, as the political unrest in Nicaragua, which broke out in April 2018, occurred just as the financial product was about to be rolled out. The political situation also led to an economic depression that made farming nearly unviable, credit outrageously costly and put the very survival of iDEal into question. The security situation became so serious that we had to repatriate the director, Nadja Schäfli, who had been leading the social enterprise for 9 years, with her husband and their two small children. For this reason, we suspended operations for three months and resumed in October 2018, with our new director, Mr. Inti Ferrey, joining in January 2019.

Several lessons can be learned:

- The political situation can change overnight, even in a country like Nicaragua which was perceived as one of the most stable and safe countries in Central America
- The economic and regulatory environment can change the viability of a financial product dramatically and at short notice
- Providing start-up finance to small farmers is challenging even under normal conditions, but requires even more creative solutions under stress conditions

As a result of the lessons learnt and the current operating environment, we have pivoted our approach significantly to providing a guaranteed market opportunity, floor price, technical advice, in-kind financing and collection/grading services to farmers, as is described in further detail above, and subject to our ability to raise the investment to launch this initiative. This approach takes advantage of a new market opportunity through our partner FRUTCO and mitigates many of the risks and challenges faced by farmers in undertaking new agricultural opportunities.

Recommendations for similar interventions: The political turmoil was not foreseen by anybody, and even though, a risk analysis was undertaken, the overall perception was that Nicaragua had quite stable political conditions and personal safety was better than in neighbouring countries. We are grateful to SCBF for the understanding and patience shown to us throughout this challenging time, and for understanding that it was necessary to drastically adapt our model. We would have preferred to test this new model under the remaining portion of the SCBF program, but we understand the reasons why SCBF wants to close the project now.

We recommend that future interventions incorporate the type of approach we are now pursuing, where opportunities for finance are directly integrated with high-value income opportunities and risk mitigation. In the case of smallholder farmers, their actual risks related to weather, weak agronomic knowledge (particularly for new crops), and uncertain markets, as well as their perceived risks in investing time and resources into a new activity such as growing a new crop or utilizing a new irrigation method must be mitigated. Smallholder farmers are risk averse and want short payback periods on any investment they make.

Loan capital must also be affordable for farmers. While microfinance institution rates reflect the cost of profitably managing small loans, they are not necessarily affordable for farmers. In some cases, these rates may need to be subsidized to make them more affordable, or flat cash subsidies offered to farmers similar to the MEDA vouchers, or the start-up package down payment subsidies, we intend to offer through our new approach with FRUTCO. Particularly, when looking to engage farmers in new opportunities – whether it is a new market or a new technology - upfront subsidy may be required to lower the perceived risks to farmers and provide a proof point of viability for future farmers. We plan to test this through our continued engagement with FRUTCO, if we can raise the investment required to move forward with this initiative.

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[i] The World Bank Group (*2014, 2016, 2017, 2018*). World Development Indicators database. Washington, DC. http://data.worldbank.org. Accessed (*Dec. 13,2019*)

[ii] Heritage Foundation, (*2019*) Index of Economic Freedom, http://www.heritage.org/index/ranking Accessed (*Dec. 13, 2019*)

[iii] The World Bank Group (*2019*). The World Bank in Nicaragua, country context. Washington, DC. http://data.worldbank.org. Accessed (*Dec. 13, 2019*)

[iv] Fitch Ratings *(2019)*. Ratings report for Financiera Fundeser, S.A.. http://fitchratingscom. Accessed *(Dec. 13, 2019)*