

Scale-up of weather index insurance for coffee farmers in Colombia

1. DEVELOPMENT RELEVANCE

Economic and poverty context

Colombia has a population of approximately 51 million people of which 23% correspond to rural populationⁱⁱⁱ. In 2021, the economy experienced a rebound driven mainly by the increase and positive dynamism of private and public consumption during the year. The GDP grew by 10.6% in 2021 after a contraction of 7% in 2020^{iv}. The impact of the COVID-19 pandemic disrupted livelihoods in Colombia, as a result, in 2020, monetary poverty reached 42.5% (21 million people) and extreme poverty 15.1% (7.5 million people) experiencing an increase of 6.8 and 5.5 percentage points with respect to 2019^v. Poverty slightly decreased in 2021 but levels are still very high and concerning.

In 2022, it is projected that the economy continues to recover (GDP 7%) but due to high inflation and high interest rates, consumption is expected to contract and growth in 2023 is anticipated to be lower^{vi}. It is important to mention that Colombia marked end to the conflict with the Revolutionary Armed Forces of Colombia (FARC) by signing a peace deal in 2016 and the government has started peace negotiations with other guerrillas to reach "Total Peace"¹.

Table 1 ⁱ : Population and economic indicators	
Population in million (2021)	51.27
GDP growth (2021)	10.6%
Inflation (2021) Source: DANE	3.5%
Trade balance (% of GDP) (2021)	-8.0%
Foreign direct investment (net) (% of GDP) (2020)	2.8%
Net ODA received (% of GNI) (2020)	0.7%
Remittances received (% of GDP) (2020)	2.6%
Economic Freedom Index ⁱⁱ (Rank among 186 countries) (2022)	60
Poverty indicators	
GDP per capita (USD) (2021)	6,131
Gini Index (0= equality 100= inequality) (2020)	54.2%
International poverty rate (2020; at 2.15 USD/day)	10.8%
National poverty rate (2021)	42.5%
National rural poverty headcount rate (2021)	NA

Figure 1: Governance indicators chart^{vii}, (Colombia, 2009-2021)

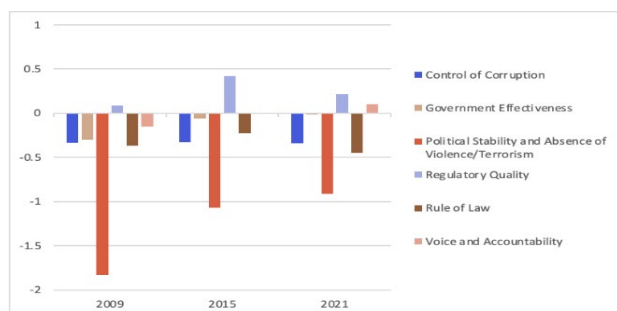
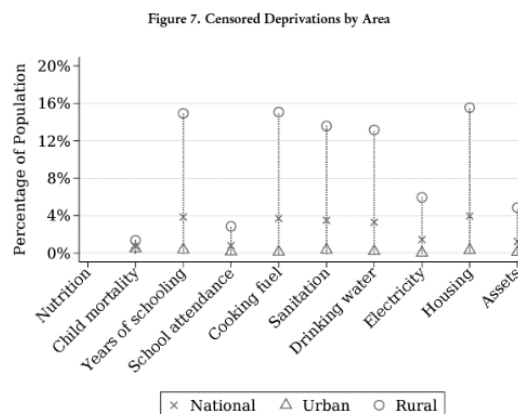


Figure 2: Multidimensional poverty index chart^{viii}, (Colombia, 2022)



Financial sector context

Table 2: Financial inclusion indicators (2021) ^{ix}	
Adult Population in million	37.05
Savings accounts (% of adults)	51.3%
Credit products (% of adults)	34.0%
Insurance penetration (% of Premiums / GDP)	3.0%
Insurance spending per adult (USD)	137.76
Inclusive insurance ² (% of total premiums)	2.4%

The COVID-19 pandemic, due to the periods of lockdown and the need to conduct secure banking transactions, has increased the banking penetration in the country. By September 2021 the financial inclusion indicator of the country was 90% with 1.5 million people accessing a financial product for the first time^x. The banking penetration in rural areas has also increased, thanks to the non-bank correspondent business model that banks have adopted. In September 2021, the percentage of adults with an active financial product in rural areas was 69.6%^{xi}. The use of mobile wallets in the country has had an exponential growth during pandemic, currently there are 12 different payment and deposit platforms in

¹ The Congress of Colombia approved Law 181 of 2022 under which peace becomes a state policy. The law states that peace policy must be a priority in the state affairs and that it must be transversal in all the country's matters. It also establishes the rules for government negotiations with the illegal armed groups. At least 10 armed groups have joined a ceasefire and hope to begin talks with the government.

² Microinsurance products: Written premiums / Total written premiums

the country with more than 28 million users^{xii}. As for insurance penetration in the country in 2021, it remained at 3% and microinsurance products represented just 2.4% of the total written premiums^{xiii}.

Partner financial sector institutions

The three main partners involved in the project are: Blue Marble, Seguros Bolivar and Nespresso.

Blue Marble Microinsurance (Blue Marble) is a social enterprise owned equally by five insurance entities with a mission of providing socially impactful, commercially viable insurance protection to the underserved. Blue Marble’s vision is to economically empower the underserved.

- To understand the factors that inhibit the economic development of the underserved
- To develop innovative, customer centric solutions by bundling services
- To master partnerships and networks in delivering these solutions
- To make solutions affordable by using technological innovations to mitigate frictional costs



Blue Marble has operations in America, Africa, and Asia.



Seguros Bolivar's branch offices in Colombia

Seguros Bolivar is Colombia's second largest insurer, which offers a wide range of life and non-life insurance products. It currently has 14 branches and 11 agencies meeting the insurance needs of 19 cities nationwide. The insurer is part of Grupo Bolívar, the third largest financial conglomerate in Colombia. The group also has operations in Ecuador, Venezuela, and Costa Rica. Seguros Bolivar was founded in 1939 and is based in Bogota, Colombia. The vision/mission for Seguros Bolivar is to generate economic, social, and environmental value in a sustainable way for the benefit of the community and its shareholders, collaborators, and clients. The company expects to contribute to a more sustainable country and generate long-term value through their sustainable strategy which consists of promoting access to insurance and services for all and helping to close the protection gap, especially for the poor, vulnerable, microentrepreneurs and rural population.

2. INTERVENTION APPROACH

Capacity building needs

Café Seguro programme started in 2018 as a result of a collaboration between Blue Marble, Nespresso, and Seguros Bolivar. It is a parametric weather insurance product that serves smallholder coffee farmers in Caldas, Colombia. The insurance covers drought and excess rainfall during the key phenological stages of coffee and it is co-created with farmers. The customization process involves tailoring the product based on the specific microclimates and risk appetites of customers, resulting in a high degree of customer satisfaction, along with low basis risk. Premiums are paid 80% from government subsidies and 20% by the cooperatives.

The project sought to remove key up-scaling constraints the Café Seguro programme faced:

- Operational capacity to develop different parametric precipitation solutions suitable for smallholder farmers in other regions (Antioquia, Risaralda, Quindío, Santander, Valle del Cauca, Tolima and Huila).
- Explore product innovations along with technological efficiencies that can potentially decrease the transactional cost, making the product more affordable for the smallholder farmers.
- Provision of educational trainings for partners, cooperatives, and farmers to instigate programme’s growth and to address basis risk.

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

The goal of the SCBF intervention was to scale the Café Seguro program. To this end, Blue Marble and Seguros Bolivar worked on the following streams:

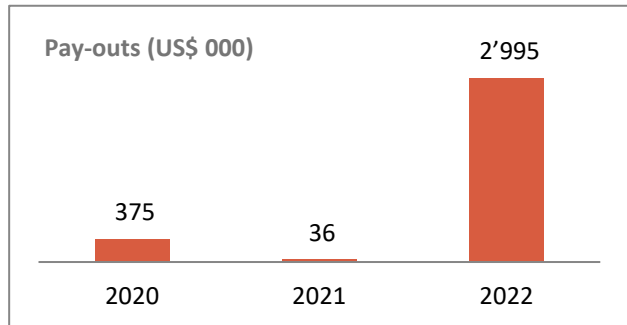
- 1. Refined outreach collateral:** The partners refined and updated the programme’s marketing materials to approach cooperatives, different stakeholders and distribution channels.
- 2. Programme’s stakeholders increased the operational and project management capabilities** to support the product development, data analysis, and sales.
- 3. Trained partners:** Blue Marble trained the partners, Seguros Bolivar and Cafexport, on the product offering, monitoring of performance of the program, and promoting insurance awareness among farmers.
- 4. Developed new, regionally accurate prototypes:** Blue Marble prototyped different insurance indices for cooperatives in for farmers in Caldas, Antioquia, Valle del Cauca and Huila.
- 5. Renewed the farmers in the cooperatives in Caldas and targeted new cooperatives in new regions:** To grow the programme, the partners developed a pipeline of new cooperatives that have been reached out to as part of a customer education and insurance awareness campaign. Unfortunately, due to the COVID-19 pandemic, field visits were limited until 2022.
- 6. Tracking and monitoring:** Blue Marble has continuously monitored and tracked the pay-outs after each phenological stage for each cooperative.
- 7. Assessment of the technological efficiencies that improve the underwriting and payment process of the insurance:** Blue Marble evaluated different payments channels, customer registration through mobile phone (smartphone or SMS), mobile enrolment, and platforms for digital interaction between partners.



3. RESULTS ACHIEVED AND NOT ACHIEVED

Client level

Before Café Seguro, smallholder coffee farmers in Colombia had no access to climate insurance. Adverse climate events that damage the coffee harvest hurt smallholder farmers disproportionately and they can lead to a poverty and debt cycle that is hard to escape. Café Seguro has supported by providing financial stability and building a long-term sustainable living income for smallholder farmers and their families. During this intervention, the programme delivered a track record of USD 3.4 million in pay-outs to approximately 7,000 small coffee farmers of which 26% were women farmers. The country is experiencing an extreme “La Niña” phenomenon which has led to a decrease of 13% in the national coffee yield. Café Seguro, through its pay-outs, has supported farmers in these adverse years and protected their income when they needed it. With this financial support, farmers were able to invest in their harvest, buy fertilizers and prevented their over-indebtedness. Most farmers take out loans to pay for their agricultural inputs, and if a climate change event damages their coffee harvest, they may not only be able to repay that loan, but also they will not be able to buy inputs for the following harvest, which can push them into a cycle of poverty.



Through this intervention the programme has expanded to three different regions: Antioquia, Valle del Cauca, and Huila, and it continues to scale. After the assessment of the operational efficiencies and farmers’ feedback, the insurance company was able to improve the pay-out experience of farmers through the existing payment channels by reducing the forms (legally permitted), enhancing the communication and socialization of the pay-out; and requiring bank branches to deliver better customer service. Also, Seguros Bolivar has recently started piloting pay-outs through a mobile wallet operator, so farmers can choose from a more suitable range of pay-out channel options. These improvements together with more digitally adaptable regulatory requirements have translated into a smoother registration process, which is crucial for programme’s growth in other regions.

Client Testimonials



“With the last payment I received from Café Seguro, I have invested in fertilizers for the farm, so that with the good weather I can have a good harvest. If we had not received the payment, we would have needed to get loans, or our coffee production would have been affected because we would not have the means to support it.”
- Mario Davila Rios

“I have talked to my neighbours, friends and family members about how Café Seguro is a safety net that allows us to cultivate coffee with more peace of mind.”
- Luz Marlene Betancourt Galliano



“I feel satisfied with Café Seguro because if there are climate changes, I feel supported by a safety net. I know that I am not going to lose my harvest, and I will have income.”
- Idalia Franco Franco

“The last payment I received from Café Seguro was in cash. I used it to buy baskets, bags for packing dry coffee and other things for the farm. If I had not received this insurance pay-out, I would have had to pay out of pocket to afford the expenses of my farm. I am very content, very happy, because it is a relief to have help in the event of a harvest loss.”
- Pedro Nel Castaneda Castañeda



Partner financial sector institutions level

In the last two years, Café Seguro reached almost 6,700 small coffee growers, which represents a growth of 109% of farmers insured relative to the start of the intervention. This growth is represented by: 1) New farmers who have signed up to the programme within the cooperatives already reached prior to the intervention; 2) 100% renewal of the farmers that were part of the programme prior to the intervention; 3) The addition of six new cooperatives to the programme in three new regions: Antioquia, Quindío, and Huila.

The number of hectares and sum insured have also increased in the past two years. The sum insured in the programme is linked to the production costs per hectare. At the beginning of the programme the sum insured represented approximately 56% of the costs of production⁸, in 2022 almost all the farmers increased the sum insured to 74% of their costs of production, thus having a more comprehensive cover.

Table 3: Outreach and portfolio trends		2022
Total number of insured clients		6,690
Total number of insured women clients		1,768 (26%)
Total number of hectares covered		14,613
Farm size per farmer (Ha)		2.2
Total number of policy holders		10
Total sum insured (USD 000)		7,675
Insured Clients Growth ratio ³		109%
Product Value and Service Quality:		
Incurred (and reserved) claims ratio ⁴		110%
Promptness of claims settlement ⁵		90 days
Claims rejection ratio ⁶		0
Coverage ratio ⁷		12%

3 Growth ratio = (number of insured n – number of insured n-1) / number of insured n-1.

4 Incurred claims ratio = incurred claims / earned premium.

5 Promptness of claims settlement is an analytical breakdown of service times taken to report and process a set of claims (refer to Performance Indicators for Microinsurance. A Handbook for Microinsurance Practitioners, 2nd edition, pp. 42-45).

6 Claims rejection ratio = number of claims rejected / number of claims in the sample.

7 Coverage ratio = number of active insured / target population

8 Production costs without including labour costs

In terms of technological developments, the intervention enabled making important discoveries regarding the digital efficiencies required in the insurance underwriting and payment process to offer a better customer experience and to reduce the claims response time. Regulatory constraints were also identified and conversations to reduce the requirements for extensive physical forms for customer knowledge have started, to ensure the requirements are met while enabling growth. Lastly, a pilot to offer a *Daviplata*, a mobile wallet platform, as a pay-out channel has started with one of the new cooperatives.

4. LESSONS LEARNT

Thanks to the SCBF intervention, the Café Seguro programme has grown significantly in terms of the number of coffee growers and number of new cooperatives. However, to achieve these growth objectives, the implementation was not easy, with several challenges arising throughout the project, from which we have learnt several lessons:

Initial adoption starts with a small subset of farmers: Even though the programme is in its fourth year and has a strong pay-out record, cooperatives still join the programme cautiously, starting with small pilots with a few hundred farmers. It is at the point once the product pays out, cooperatives expand the number of farmers covered. This means that growth is initially slow and tends to accelerate after the product experience.

Given the initial hesitation of new aggregators to join the programme, demonstrated by small initial pilots per aggregator, we have pivoted our outreach strategy to increase the number of target aggregators. We now run several pilots at the same time, and by doing so increase the potential for scale once each aggregator experiences the pay-outs.

Distribution model in other regions: Through investigating the distribution options to scale the programme, we discovered that outside of Caldas, the region where we had started the programme, cooperatives do not play such a central role. Coffee farmers instead tend to work directly with traders or through mechanisms provided by the National Federation of Coffee Growers. This required rethinking the distribution strategy, focusing on different aggregators, such as traders, exporters, and other intermediaries.

Operational efficiencies to deliver a better customer experience: A key pain point we have discovered in the customer journey has been the process for distributing pay-outs, in particular the need to offer extended hours for farmers to collect pay-outs, including Saturdays. In addition, digital channels need to offer a wider geographic coverage for cash withdrawals. This is an area that we are continuously looking to improve, and the roll-out of *Daviplata* as a pilot is intended to test a digital alternative to improve this process.

COVID-19 pandemic and social and political instability: Throughout 2020 the Colombian government maintained strict lockdowns which disrupted operations. These disruptions were further compounded in 2021 with the advent of large-scale protests in all major urban areas against government reforms. In the face of these challenges, our most effective measure was to start early communications to set up expectations with all stakeholders of the likely impact of processing times and therefore potential delays across all processes associated with the product. This was well-understood by stakeholders and helped keep a high level of trust despite the challenges. In addition, we built significant experience leveraging remote channels to collect information and interact with stakeholders as necessary, including farmers.

Limited resources at the cooperative level: While virtually all cooperatives we have reached out to are interested in being protected against bad weather, not all have the disposable income to acquire the type of coverage that would be most beneficial for them (i.e. frequent pay-outs as opposed to catastrophic insurance). Government subsidies have been an important component of the programme, having subsidized approximately 80% of the premiums. However, subsidy funds have not been consistent, and in 2021 they were significantly decreased, which impacted the subsidies that cooperatives could access this season. In order to adapt to this situation, we offered cooperatives different options, including the use of deductibles and different design options, that entail focusing only on the highest risk exposures to effectively design a more affordable product that would still be meaningful for the farmers. This approach has proved to be effective, as cooperatives renewed their policies despite the lowered subsidies. Our lesson from this experience is that the customization of the product is essential to ensure cooperatives' interest in keeping insurance cover in adverse situations.

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- ⁱ The World Bank Group (2022). World Development Indicators database. Washington, DC. <http://data.worldbank.org>. Accessed (November 2, 2022)
- ⁱⁱ Heritage Foundation, (2022) Index of Economic Freedom, <http://www.heritage.org/index/ranking> Accessed (November 2, 2022)
- ⁱⁱⁱ Departamento Administrativo Nacional de Estadística DANE (2022). Demografía y población. <https://www.dane.gov.co/index.php/estadisticas-por-tema/demografia-y-poblacion/proyecciones-de-poblacion> Accessed (November 2, 2022)
- ^{iv} International Monetary Fund (2022). Data Mapper. https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/COL?year=2022 Accessed (November 2, 2022)
- ^v Departamento Administrativo Nacional de Estadística DANE (2022). Pobreza y Desigualdad. <https://www.dane.gov.co/index.php/estadisticas-por-tema/pobreza-y-condiciones-de-vida/pobreza-multidimensional> Accessed (November 2, 2022)
- ^{vi} BBVA Research (2022). "Colombia: Recuperación económica y perspectivas 2022-2023" <https://www.bbvarresearch.com/publicaciones/colombia-recuperacion-economica-y-perspectivas-2022-2023-foro-colcob-2/> Accessed (November 2, 2022)
- ^{vii} The World Bank Group (2021). Worldwide Governance Indicators database. Washington, DC. <http://databank.worldbank.org>. Accessed (November 2, 2022)
- ^{viii} Oxford Poverty and Human Development Initiative (2022). Global Multidimensional Poverty Index Databank. OPHI, University of Oxford. <https://ophi.org.uk/multidimensional-poverty-index/mpi-country-briefings/> Accessed (November 2, 2022)
- ^{ix} Superintendencia Financiera de Colombia (2022) Reporte de inclusión financiera 2021. <https://www.bancadelasoportunidades.gov.co/sites/default/files/2022-07/Reporte%20de%20inclusi%C3%B3n%20financiera%202021.pdf> Accessed (November 2, 2022)
- ^x Banca de las Oportunidades (2022). Informe de Inclusión Financera 2021. <https://www.bancadelasoportunidades.gov.co/index.php/es/publicaciones/reportes-anales> Accessed (November 2, 2022)
- ^{xi} Banca de las Oportunidades (2022). Informe de Inclusión Financera 2021. <https://www.bancadelasoportunidades.gov.co/index.php/es/publicaciones/reportes-anales> Accessed (November 2, 2022)
- ^{xii} Colombia Fintech. <https://colombiafintech.co/lineaDeTiempo/articulo/cuales-son-y-como-están-las-billeteras-digitales-en-colombia> Accessed (November 2, 2022)
- ^{xiii} Banca de las Oportunidades (2022). Informe de Inclusión Financera 2021. <https://www.bancadelasoportunidades.gov.co/index.php/es/publicaciones/reportes-anales> Accessed (November 2, 2022)