



Impact Measurement Case Study

PRONACA



Sector: Food and agriculture



Target Beneficiaries:
Smallholder
corn farmers

LOCATION:
Ecuador

This publication is part of a series of case studies on BCTA Impact Measurement Services (BIMS), a Business Call to Action (BCTA) initiative that demonstrates how inclusive businesses can measure and apply impact data.

BIMS provides 21 participating BCTA member companies with technical expertise and technology to design and implement survey-based data collection for assessing their social and environmental as well as operational performance. BIMS is implemented by BCTA with support from implementing providers Arthify and Echo Mobile.

Business model: Pronaca is one of Ecuador’s largest meat producers and the country’s leading buyer of hard yellow corn, which it uses to feed livestock. In 2006, Pronaca began the Smallholder Supplier Integration Programme, an inclusive business initiative that sources around 50 percent (varies due to economic and climate conditions) of all Pronaca’s corn feed from local smallholder farmers through a contract farming model. The programme provides farmers with financial assistance to purchase inputs, technical assistance to improve yields and a guaranteed purchase of 100 percent of every harvest.

THE OBJECTIVE

The company aims to build a reliable and inclusive corn supply chain that fuels livestock production while sustainably improving the livelihoods of low-income smallholder farmers and reducing the dependency on imports. Pronaca engaged BIMS in piloting regular mobile data collection as part of its farmer outreach and establish a new baseline for tracking its impact over time.

HOW IT WORKS

1 ASSESSING READINESS



A large national company, Pronaca is a mature business with a well-established team of high-capacity staff. It has an advanced readiness for measuring its impact.

While 24 farmers were evaluated in 2015, 144 farmers were surveyed during Pronaca’s recent BIMS pilot:

83% of farmers lived below USD 8.44 per day based on 2005 purchasing power parity in Ecuador.

Over **95%** of the recent sample reported receiving financial assistance from their families.

Respondents reported a **19%** increase in income per harvest since joining Pronaca’s programme

and over **84%** cited economic improvement as the programme’s most significant impact.

For its engagement with BIMS, Pronaca developed a single, comprehensive farming-household survey. Largely designed as a digital version of the paper-based survey form deployed by a third-party research consulting firm in 2015, it will now be conducted annually.

2 PLANNING AND DESIGN



Pronaca’s focus on improving farmers’ livelihoods is measured by household agricultural productivity and income, housing, financial behavior and assets – and the impacts of its efforts on households’ well-being.

4 ANALYSING DATA AND REPORTING

3 MONITORING IMPACT

RESULTS

Pronaca is using the data to: (i) improve its inclusive business initiative with a more in-depth understanding of farmers’ needs; (ii) find out how its impact can be expanded to all participants. This includes assessing new community programmes targeting education, infrastructure improvements, financial literacy, income diversification, family planning and entrepreneurship – each of which addresses specific areas of concern identified through the pilot survey.



About Pronaca

Having started its business activities in 1957, Pronaca is one of Ecuador's largest meat producers and the country's leading buyer of hard yellow corn, which it uses to feed livestock. In 2006, as part of an effort to develop a more efficient and inclusive agricultural value chain, the company began the Smallholder Supplier Integration Programme, an inclusive business¹ initiative that now enables Pronaca to source around 50 percent (varies due to economic and climate conditions) of its corn feed from local smallholder farmers. The programme: provides certified seeds, fertilizers and other agriculture supplies at affordable prices; delivers technical assistance to improve crop productivity, quality, and sustainability; and guarantees the purchase of 100 percent of farmers' harvests at prices fixed by the Government.

Pronaca joined BCtA with a commitment to increase corn production by 5 percent and scale up to reach 500 smallholder farmers while seeking support from BIMS to systematically track and measure its impacts

on farmers' livelihoods over time. Ecuador's smallholder corn farmers are historically marginalized and impoverished, with poor educational and health outcomes. As a result of inconsistent and insufficient income from their crops, farmers often turn to intermediaries for informal high-interest loans to fund the next planting cycle. However, they receive little technical assistance or education, resulting in low yields. Many farmers struggle to repay their loans since margins are diluted by middlemen traders and cheap import competition, reinforcing the cycle of poverty.

The Smallholder Supplier Integration Programme is designed to create a more equitable and reliable corn supply chain by connecting Pronaca directly with smallholder farmers via a contract farming model. In the long term, the programme aims to expand farmer production options beyond corn by transferring the needed technical know-how to grow other vegetables that improve household incomes and enhance nutrition.

¹ Inclusive businesses are commercially viable business ventures that engage people living at the base of the economic pyramid – with less than USD 10 per capita per day in 2015 purchasing power parity – as consumers, producers, suppliers, distributors of goods and services, and employees.

Step 1: Assessing readiness

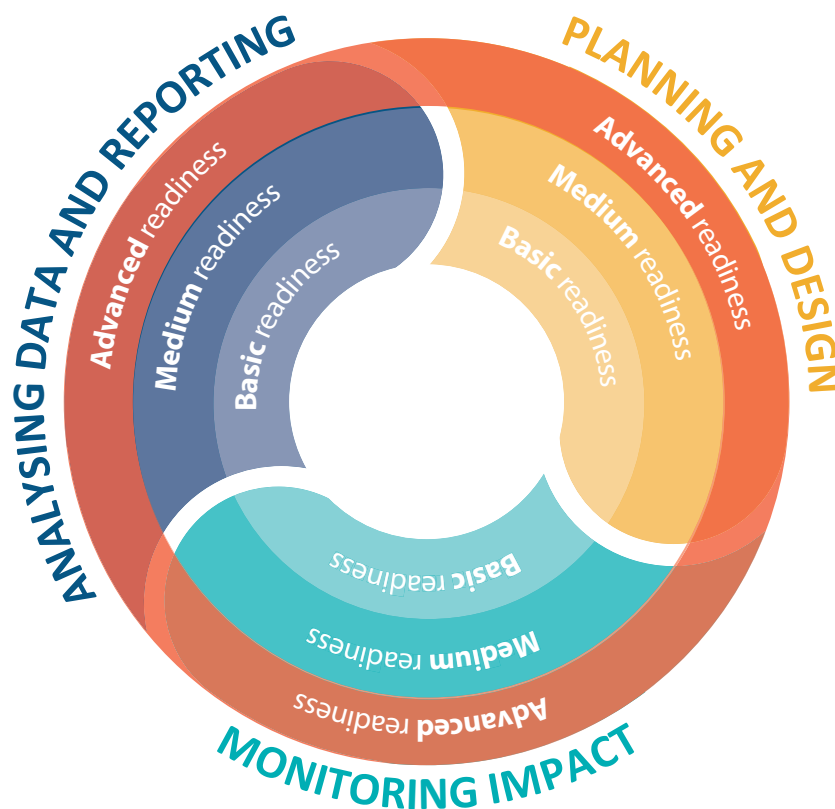
Assessing internal readiness for impact measurement is a critical first step in determining what data to collect, how to collect them and how to use them.² A wide variety of tools are available for businesses to measure, manage and report on their social and environmental impacts, ranging from those generating quick feedback to those requiring longer timeframes for showing systemic impact. Any preliminary assessment should be based on the business's maturity and capacity, and identify how to meet business needs using available resources. In assessing a company's readiness to measure its impact, BCtA considers its business maturity and capacity, which is determined based on the company's clarity of purpose, data-driven culture and resources available for monitoring and data collection.

Since initiating its sustainability efforts in 2006, Pronaca has produced an annual Sustainability Report in accordance with the Global Reporting Initiative and Global Pact. In 2015, the company commissioned a leading consulting firm to conduct an impact evaluation, which produced valuable

insights for both programme improvement and external relations. In addition to its institutional experience with impact measurement and reporting, the company has over 7,000 employees and considerable resources across the country, including technical staff in the field.

In 2016, Pronaca engaged BIMS to pilot more regular, in-depth impact measurement and track its desired social impacts over time. The company was primarily interested in collecting feedback on its Smallholder Supplier Integration Programme while monitoring changes in basic livelihood indicators such as housing quality and living conditions, household income and spending, financial assets and behavior, health and education.

While the company had not engaged in regular programme-specific impact measurement prior to engaging BIMS, it is a **mature business** with a well-resourced and high capacity-staff, and a company-wide commitment to social impact – which means it has **advanced readiness** for impact measurement.



² In this case study, 'impact measurement' refers to the measurement of inclusive businesses' social, economic and environmental performance.

Step 2: Planning & design

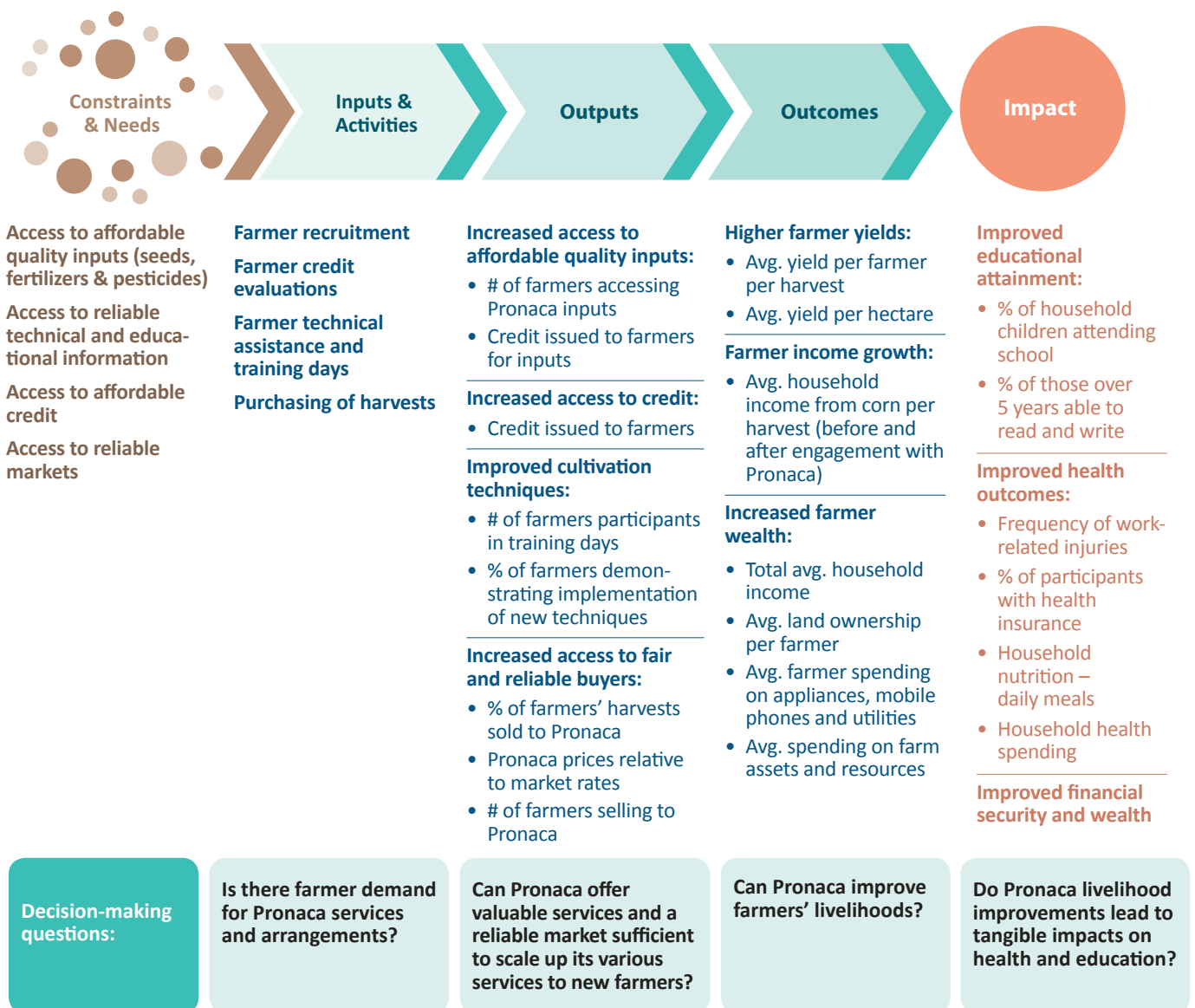
The planning step involves developing an Impact Value Chain³ that links business goals, strategies and operations to outcomes and impact related to the Sustainable Development Goals (SDGs).⁴ The Impact Value Chain is the basis for developing impact indicators that address the needs identified in the previous step.

Impact Value Chains guide companies in determining what to measure and where to collect data by mapping business goals, strategies and operations

against outcomes related to the SDGs. According to Xavier Tobar, Pronaca’s Communications Director, Pronaca needed to improve impact measurement because “we needed a better understanding of whether our actions were really helping us to fulfill our purpose: developing our agriculture sector and providing good nutrition to the Ecuadorian people”.

An abridged version of Pronaca’s Impact Value Chain, with a limited number of social impact metrics, is presented here:

Pronaca’s Impact Value Chain



3 The Impact Value Chain integrates multiple approaches such as Theory of Change, Results Chain, logframes and business value chains.

4 Adopted in September 2015 by all United Nations member states, the SDGs are a set of 17 global goals and 169 targets related to key development issues facing society today. Countries aim to achieve them by 2030.

Step 3: Monitoring impact

To monitor impact, BIMS recommends that companies continuously collect data on operational and social performance. Businesses can access data from individuals or from secondary sources like invoices, inventories, customer registrations, market research reports, social media, surveys and polls. Identifying sources of data is critical for developing data-collection plans using the Impact Value Chain.

Many companies have already collected data that can be used for impact measurement. BIMS suggests that they first determine if they can analyse existing data. If additional data are needed, it is important for companies to consider how new sources and data sets can be integrated or merged with existing resources. In this way, companies can improve the value of data collection by enabling more efficient analysis and knowledge sharing.

The Pronaca team's core interest was in assessing its impact on farmers' livelihoods – both by comparing the data with a previous impact evaluation and piloting more regular, integrated data collection and impact measurement. Whereas the prior evaluation had been conducted on paper by a third-party firm with only 24 farmers, Pronaca wished to utilize the same indicators and data-collection instrument with a larger and more representative sample, its own technical team and more efficient mobile technology.

Survey implementation

To achieve a representative sample size, Pronaca sought to survey 132 out of 200 participating farmers, with proportional sampling across the three regions where farmers were active. The company's technical staff were trained to conduct the surveys during routine household visits and farmer training days, when farmers are gathered in groups. In order to increase the efficiency of data collection and the consistency of the resulting data, the Pronaca and BIMS teams digitized the formerly paper-based evaluation and translated previously open-ended questions into multiple-choice questions.

While these adjustments reduced the time required for collecting, reporting, aggregating and analysing data, a reduction in the size of Pronaca's technical team, combined with the geographic spread, meant that the survey took nine instead of five months to administer. Ultimately, Pronaca surveyed 144 of the 200 farmers.





Step 4: Analysing data and reporting

While the purpose and usability of impact data vary for each inclusive businesses, the outputs of impact measurement are used to answer one or more of the following questions::

1. Who is being impacted?
2. How are they being impacted?
3. What are the drivers contributing to or limiting this impact?
4. How can this impact be scaled up and linked to the SDGs?

Who is being impacted?

Pronaca's farmers are based in western Ecuador, primarily in Balzar, Palenque and Mocache. Of the 144 surveyed, all but one were ethnically Mestizo. According to the Progress out of Poverty Index, 83 percent of those surveyed earned below USD 8.44 per day in terms of 2005 purchasing power parity. The survey found relatively uncrowded housing, with 4.4 people and 2.2 bedrooms per home. Yet while 62 percent were living in formal homes, 30 percent were living in informal shacks or hovels. In the majority (72 percent of all households, the oldest adult had only completed basic primary education.

How are they being impacted?

The Pronaca theory of change relies on improving access to the key factors underlying farmers' productivity and income – such as inputs, credit, training and markets – in order to improve

livelihoods. Pronaca's team believes that with more affordable credit and inputs, knowledge of how to use them and a guaranteed buyer, farmers can achieve an otherwise inaccessible level of income security and productivity, which will in turn enable improvements in housing and increased investments in productive assets, reversing the cycle of poverty and enabling improvements in health and education. The BIMS pilot survey appeared to validate these assumptions, with 84 percent of farmers citing economic improvement as the biggest change in their lives since joining the Smallholder Supplier Integration Programme. Farmers also reported a 19 percent increase in incomes per harvest, and average spending on farm resources and logistics was more than seven times higher than that reported during the previous evaluation.

What are the drivers contributing to or limiting this impact?

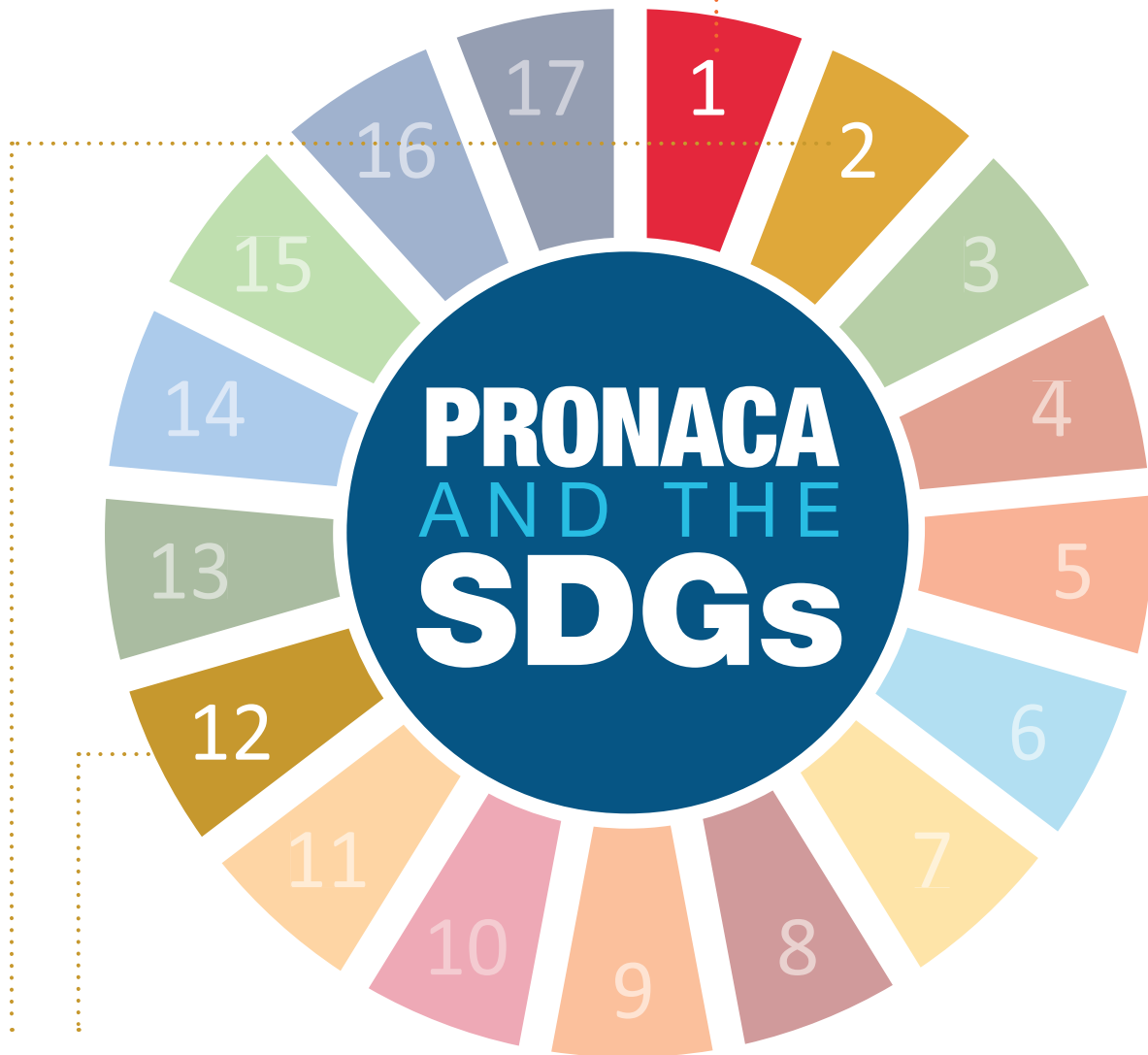
Of all farmers surveyed, 84 percent cited pricing as the primary improvement they sought through participation in the programme. This suggests that while the reliability of a guaranteed buyer has increased farmers' incomes, the majority still fill squeezed by margins. In addition, 45 percent of farmers cited severe changes in rainfall patterns as a major climate-related impact on their productivity, and the majority reported that their farm work remains almost entirely manual, with little or no mechanization.

How can this impact be scaled up and linked to SDGs?

BIMS helps inclusive businesses to adopt impact-measurement practices that enable better planning, monitoring, and delivery of social and environmental impacts, allowing them to contribute to achieving the SDGs. As part of the Impact Value Chain, Pronaca's team identified the following SDGs that are aligned with the business's intended impacts:

SDG 1 NO POVERTY

Pronaca's primary social goal is to break the poverty cycle for smallholder farmers by improving the stability of their businesses and increasing their incomes through higher productivity and prices. By doing so, the company is enabling increased investments in farming inputs and assets, which it hopes will further enhance productivity and earnings.



SDG 2 ZERO HUNGER

SDG 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Pronaca is committed to sustainable agriculture and works with farmer to increase productivity per hectare using sustainable practices. It also trains farmers not to employ traditional land-clearing practices such as slash and burn.

Lessons learned from Pronaca's impact measurement

Well-resourced and committed inclusive businesses can collect representative and actionable data samples using mobile tools, but the process may still require significant time and resources.

Pronaca's advanced readiness for measuring impact enabled the team to develop a robust and effective data-collection instrument and produce useful data. During BIMS field visits, the company allocated significant resources to project planning and field testing, with both Pronaca's leaders and representatives of the company's broader sustainability initiatives actively participating in BIMS training. However, the timeline for collecting data was longer than expected as a result of in-person surveying by a small technical team and a geographically scattered respondent pool. To conduct more regular, leaner data collection focused on fewer indicators, the company is considering diversifying its data-collection channels to leverage SMS and other remote channels used by farmers.

To produce actionable insights, inclusive businesses must invest in building staff capacity in data analysis as well as collection.

Despite improved collection tools, human resources presented some challenges for efficient data collection and analysis. Two technical staff who were assigned to collect data had to spend a considerable amount of time traveling in addition to their regular responsibilities. The sample took nearly six months

to cover. Furthermore, as the digitalized survey was comprehensive and lengthy, Pronaca found it difficult to distill the large volume of data collected into actionable insights without a dedicated, experienced analyst. The company is considering to integrate data analysis into its business processes for improved efficiency, and build internal capacity to enable the use of data in driving improvements.

Quantitative impact measurement can validate or undermine assumptions, and provide new insights that enable inclusive businesses to improve their operations.

The results of the BIMS pilot survey undermined a number of the Pronaca team's assumptions about the socio-economic status and living conditions of participating farmers. On one hand, education levels were higher, with 74 percent of farmers' children completing at least basic education and 39 percent completing secondary education. Conversely, the survey found that many farmers are investing all their spare funds into their crops and are therefore unable to make improvements to their homes. This has resulted in inadequate infrastructure such as water supply and in many families sharing close informal quarters with livestock. As a result of these findings, Pronaca will expand non-agricultural training (e.g. financial management, income diversification, entrepreneurship) in order to help farmers to improve their wellbeing.

Business Call to Action (BCtA) aims to accelerate progress towards the Sustainable Development Goals (SDGs) by challenging companies to develop inclusive business models that engage people at the base of the economic pyramid – people with less than USD 10 per day in 2015 purchasing power parity – as consumers, producers, suppliers, distributors of goods and services, and employees.

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Ministry of Foreign Affairs of the Netherlands



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