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Agriculture/Food Export (SAFE) Project

Final Evaluation

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Cover photo: Cow at a farm in San Juan visited by the evaluation team

Introduction and Purpose section photo: Mural from COOPAGARESTE store in Hato Mayor

Evaluation Design and Methodology section photo: Enumerators testing tools with a female farmer in Monte Plata

Findings section photo: Farmer with cows in Dajabon

Conclusions section photo: Cow at a farm in San Juan visited by the evaluation team

Recommendations section photo: Herd of cows at a farm in Dajabon visited by the evaluation team

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List of Acronyms

Acronym	Full Term
ADHA	<i>Asociación Dominicana de Hacendados y Agricultores</i>
AGAMPTA	<i>Asociación de Ganaderos de Monte Plata</i>
ADIL	<i>Asociación Dominicana de Industrias Lácteas</i>
ADOPROLAC	<i>Asociación de Procesadores de Lácteos y Derivados</i>
AGRODOSA	<i>Aseguradora Agropecuaria Dominicana</i>
APHIS	USDA Animal and Plant Health Inspection Service
APROLECHE	<i>Asociación de Productores de Leche</i>
BAGRICOLA	<i>Banco Agrícola</i>
COMINOR	<i>Comisión Nacional de Normas del Ministerio de Industria Comercio y Mipymes</i>
CONALECHE	<i>Consejo Nacional para la Reglamentación y Fomento de la Industria Lechera</i>
COOPAGAMPTA	<i>Cooperativa de Ganaderos de Monte Plata</i>
COOPESUR	<i>Cooperativa Agropecuaria de Ganaderos del Sur</i>
COOPFEDEGANO	<i>Cooperativa de Ganaderos de Fedegano</i>
CRI/GENEX	Cooperative Resources International
DEC	Development Experience Clearinghouse
DIGEGA	<i>Dirección General de Ganadería, Ministry of Agriculture</i>
DIGEMAPS	<i>Dirección General de Medicamentos, Alimentos y Productos Sanitarios, Ministry of Health</i>
DR	Dominican Republic
EMBRAPA	<i>Empresa Brasileira de Pesquisa Agropecuaria</i>
FEDA	<i>Fondo Especial para el Desarrollo Agropecuario</i>
FEDEGANO	<i>Federación De Ganaderos del Noroeste</i>
FEGACIBAO	<i>Federación de Ganaderos del Cibao Central y el Nordeste</i>
FENACERD	<i>Federación Nacional de Comerciantes y Empresarios de la República Dominicana</i>
FGD	Focus group discussion
FFPr	Food for Progress
FSIS	USDA Food Safety and Inspection Service
HACCP	Hazard Analysis and Critical Control Points
IDB	Inter-American Development Bank

IDIAF	<i>Instituto de Desarrollo de Investigación Agrícola y Forestal</i>
INDOCAL	<i>Instituto Dominicano de Calidad</i> in the Ministry of Industry and Trade
JAD	<i>Junta Agroempresarial Dominicana</i>
KII	Key informant interview
LAVECEN	<i>Laboratorio Veterinario Central</i> , Ministry of Agriculture
LFS	Livestock field schools
M&E	Monitoring & Evaluation
MCCs	Milk Collection Centers
NCBA CLUSA	National Cooperative Business Association – Cooperative League of the USA
OIRSA	<i>Organismo Internacional Regional de Sanidad Agropecuaria</i>
ONE	<i>Oficina Nacional de Estadísticas</i>
PO	Producer Organization
PRO CONSUMIDOR	<i>Organismo de Defensa al Consumidor</i>
PROGANA	Local name of the SAFE project
REDDOM	<i>Fundación Rural Economic Development Dominicana</i>
SAFE	Safe Agriculture/Food Export Program – DR
SIDOCAL	<i>Sistema Dominicano para la Calidad</i>
SPS	Sanitation Performance Standards
TA	Technical assistance
TAMU	Texas A&M Agrilife Research, a member of the Texas A&M University system
US	United States of America
USDA	United States Department of Agriculture

Executive Summary

Project Background and Purpose

The Safe Agriculture/Food Export (SAFE) project, known as PROGANA in Spanish, is a five-year project funded by the United States Department of Agriculture (USDA), Foreign Agricultural Service (FAS) through the Food for Progress (FFPr) program. The project was funded by commodity donations through a Commodity Credit Corporation (CCC), with an initial estimated worth of US\$16,212,121 and implemented by the National Cooperative Business Association CLUSA International (NCBA CLUSA), along with its partners, the *Junta Agroempresarial Dominicana* (JAD), the Borlaug Institute for International Agriculture and its Center for Food Safety at Texas A&M University (TAMU), and Cooperative Resources International (CRI/GENEX).

The livestock value chain (beef and dairy) in the Dominican Republic is characterized by low levels of formality, weak value chain linkages, and lack of know-how on best practices. This has led to low productivity and quality and poor health and safety measures in the sector. For the dairy value chain, the majority of the stakeholders in the dairy sector see the improvement in productivity and quality of milk as the most achievable goal in the near term. This includes increased ability to meet domestic demand by addressing structural issues in the value chain – such as a lack of economies of scale and low levels of organization and cooperation among producers and other value chain stakeholders. For the beef value chain there is a greater opportunity for developing exports, especially if DR can achieve equivalence with US standards to allow exports to Puerto Rican markets.

Against this background, USDA launched the SAFE project which targeted 14,407 individuals in the value chain, including 13,200 producers and 1,207 public and private extension workers, beef and dairy processors, decision makers, public and private stakeholder representatives, and 60 producer organizations. The project targeted 11 dairy and beef producing provinces in the Dominican Republic (Santiago Rodríguez, Dajabón, Independencia, San Juan, Monte Plata, La Altagracia, Hato Mayor, El Seibo, María Trinidad Sánchez, Duarte and Puerto Plata), with two overall objectives:

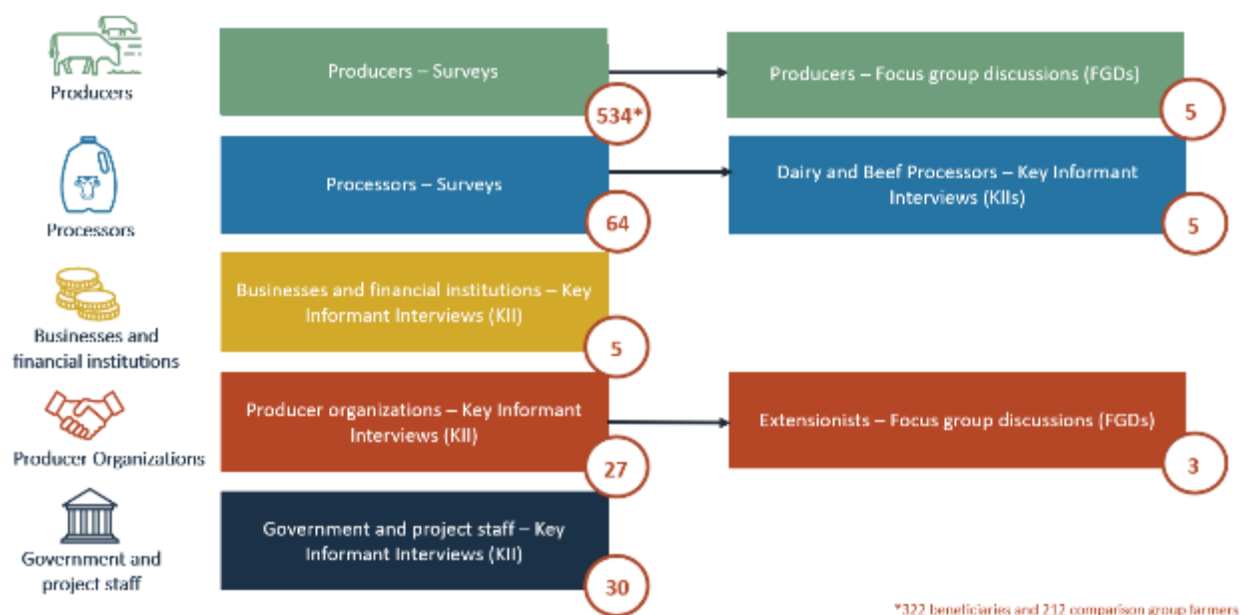
1. **Improve agricultural productivity** in the livestock (beef and dairy) value chain by increasing the use of improved techniques and technologies; improving farm management; increasing the availability of improved inputs and use of financial services; strengthening the capacity of government institutions and key groups; and increasing the leverage of private sector resources.
2. **Expand trade of beef and dairy products** by adding value to post-production; increasing the adoption of established standards; increasing access to markets; building linkages between buyers and sellers; improving post-harvest infrastructure; increasing the use and efficiency of post- production processes; improving the policy and regulatory framework; and strengthening the capacity of key organizations in the trade sector.

Evaluation Design, Methods and Limitations, and Questions

The purpose of the final evaluation is to provide an independent, third-party assessment of the performance of the SAFE project in achieving its objectives. The evaluation is focused on answering key questions related to the SAFE project's relevance, effectiveness, efficiency, impact, and sustainability and includes metrics on the project's progress against its targets for 89 project indicators (58 activity indicators and 31 results indicators as of the writing of this report). The also assesses adjustments made over the course of the project including those based on the midterm evaluation, identifies and documents lessons learned over the course of implementation, and makes recommendations for the future. The final evaluation of the SAFE project was conducted in three phases, as described below:

- Phase 1. Inception and Preparation for Field Work:** The evaluation team reviewed project documentation and secondary information, finalized the research methodology, and prepared and delivered to the SAFE team an inception presentation including an implementation plan. Data collection tools were drafted including surveys, key informant interview (KII) guides, and guides for focus group discussions (FGDs).
- Phase 2. Field Work:** Field work took place over a six-week period in the 11 target provinces and in Santo Domingo. Initial training and iteration and testing of the tools was conducted during the first week in Santo Domingo, before the evaluation team traveled to the provinces for primary data collection. Data was collected through a variety of means, including surveys, KIIs, and FGDs with key stakeholders and beneficiaries of the SAFE project. Figure E1 shows the approach used to collect data from each category of stakeholders:

E1. Data Collection Approach



- Phase 3. Analysis and Report:** Following data collection, initial analysis was carried out over the next two weeks, and a presentation on the preliminary findings was made to NCBA CLUSA and SAFE project staff. Following the presentation and subsequent discussions including a few additional key informant interviews and recommended readings, the Just Results team drafted

this report to provide the findings of the final evaluation to USDA, the SAFE project team, and other relevant stakeholders.

While the evaluation methodology was robust there are, as with any methodology, certain limitations and opportunities for errors and bias. This includes reliance on secondary performance information and data reported by the project. The evaluation team has attempted to mitigate any errors which might be present through triangulating information from multiple sources to inform our findings. In terms of primary data collection, some of the most relevant potential biases in this evaluation include positive response bias, selection bias, volunteer bias, and dominant response bias.

The data collection included project beneficiaries and a comparison group of producers that were eligible to participate in the project but did not receive any technical assistance or interventions. An analysis of data collected through surveys of the beneficiary and comparison group samples showed that differences between the groups in key characteristics including regional distribution, sex distribution, producer type, total land used, and average number of cows milked daily, was nominal (See Annex 2 for detailed analysis). The comparison group was effective for triangulating data collected on outcomes linked to project interventions collected through surveys, project M&E data, and other sources including interviews. However, because of study limitations, difference in outcomes between the participants and the comparison group cannot be attributed to project activities. More detail is provided on the approach and limitations of the study in the methodology section below.

Findings and Conclusions

The findings of the Final Evaluation of the SAFE project make clear that despite a slow start and external challenges posed by recurring droughts and the COVID-19 pandemic, the project achieved some significant accomplishments. These include most prominently:

1. Progress made towards achieving FSIS Equivalence for beef exports to the US, which most likely would have been achieved had not the pandemic delayed the audit scheduled for March 2020.
2. Improvements in HACCP, and sanitary practices and norms and through private co-investments in slaughterhouses participating in the SAFE project.
3. Proof of concept of the livestock field school methodology, enhanced by the use of private extensionists to provide hands-on training, technical assistance, and accompaniment for livestock producers.

Relevance: Seventy-eight percent of the beneficiary producers surveyed reported livestock field schools as being beneficial to them and 79% of processors and MCCs reported that they received high quality services from the project. However, challenges were also reported like low multi-stakeholder participation in project design, no early-stage foundational value chain assessments, and a lack of clarity of beneficiary focus in the design phase. Additionally, a failure to anchor program interventions upon an initial agreement with public sector and private sector stakeholders on goals and project design reduced stakeholder buy-in and sustainability of the project.

Effectiveness: Activities were effectively implemented with 90% of key activity indicators met at a 100% level or more. However, results achievement has been lower (68% of results indicators met at 100% level or more) due to delays owing to COVID-19. Progress towards achieving FSIS equivalence and high standards of sanitation in participating slaughterhouses, livestock field schools and private extensionists co-financed by the project, and adoption of practices to improve milk productivity were key

achievements of the project. Activities relating to improved access to finance and Seal of Quality for dairy products were less effective.

Efficiency: Delays in the first phase, challenges with the project's M&E systems, large scale of the project's implementation area, and lack of clear criteria for distributing grants were hard to overcome entirely and contributed to the shortfall in achieving the project's results indicator targets. However, staffing changes made in 2018 accelerated project activities and delivery of results was improved.

Impact: For producers participating in livestock field schools and associated technical assistance, impact on productivity has been significant, along with increased household incomes. Introduction of co-financed private extensionists has been well-received. Milk quality has improved, however, transportation and infrastructure at the MCCs remain challenging. Beef exports and trade has not seen significant market access growth, however, achieving equivalence could create significant positive impact. FSIS equivalence continues to be a driver of project impact and sustainability.

Sustainability: Techniques taught in the livestock field schools and improvements made in the slaughterhouses are still being used today. However, long-term sustainability will require continued engagement by local stakeholders; and if possible continued investments in project interventions. Most extensionists hired by the project have stopped providing support to the producers with project funding coming to a close. As of yet, no local actors have taken the lead, and while the technical capacities of POs have been strengthened, they have not embraced a leadership role in moving forward the project's objectives. JAD and APROLECHE, a local organization, has expressed interest in continuing support to the private extension program. The SAFE project should initiate and/or continue conversations with these organizations and the new government of DR to ensure the continuation the project's successful interventions.

Recommendations

The recommendations are designed to take the accomplishments of the SAFE project and build upon them in a way that leads to sustainable interventions that grow the beef and dairy sectors through increased productivity, quality, and trade. To develop them, the team drew from the findings of this evaluation, the lessons learned, and the insights of stakeholders we interviewed from the project team, the government, and the livestock (beef and dairy) value chain.

There are five recommendations for future projects in this area:

1. Collect data all along the value chain as a baseline for the project and for partners.
2. Continue to support livestock field schools and private extension services - with a partner (such as a milk buyer) that provides resources and commits to continue efforts.
3. Continue light support to beef value chain and other potential exporters.
4. Use grant funds to catalyze specific, project-based investment opportunities in both value chains. Meanwhile, encourage the private sector to offer financial services.
5. Lead a collective visioning process involving all stakeholders.

E2 below presents specific recommendations linked to SAFE project activities, including supporting data for which activities were more versus less successful.

E2. Successful vs. Unsuccessful Activities and Additional Recommendations for Future Projects

Successful Activities	Supporting Data	Recommendations
Livestock Field Schools	78% of producers surveyed said the livestock field schools were beneficial for them.	Finding sustainable financing sources for this activity (such as buyer contributions), and mainstreaming methodology with MEGALECHE in addition to the private extensionists.
Private Extension	Surveys show a 15% higher productivity for beneficiary producers than comparison group, in line with gains shown by farm visit data. Banks mentioned they considered the presence of high-quality extension services as a factor that reduced their credit risk.	More work with cooperatives to institutionalize the private extension services, and perhaps develop a system whereby cooperatives and/or members who provide/use these extension services can access funds. More discussion with government actors on how to organize extension and ensure the right incentives.
Selected grants to local organizations, that reinforce the practices taught in livestock field schools.	300+ milking parlors built with project financing. Inputs for producers. Grants supporting international TA	Better communication linked to grant and reimbursable funding. Allocate international TA effectively by responding directly to specific producer needs and supporting the adoption and follow up of new learning with producers.
Developing a Workaround for LAVECEN	Interviews and visits to laboratories; project records.	Possible <i>ad hoc</i> responsive support to encourage continued upgrading of local capacity. Important that this be done without taking on the large institutional issues that still exist.
Support to DIGEMAPS	DIGEMAPS own ability to tell their story is exceptional.	Review support to software for inspectors. A good initiative but appears back-office centric (a common issue with e-government software). Will require testing and iteration to ensure that the process for the enterprises is streamlined.
Support to Slaughterhouses (including mock audits, grants, HAACP training)	Two participating slaughterhouses (AGROCARNE and MERCARNE) passed the mock audit for FSIS Equivalence conducted by TAMU.	Network with Dominican Ambassador in Washington (as is being done) to make sure FSIS conducts the official audit soon.
Market Study (Puerto Rico)	Conducted by ASOCARNE President Enrique de Castro and Professor Greg Sullivan of Texas A&M University (TAMU).	Conduct additional market studies and follow up to what was done.

Activities that were not Successful	Supporting Data	Recommendations
Access to Finance	Only 41% of producers and 63% of processors we surveyed said they had access to finance after participation in project activities.	Needs to be designed in coordination with CONALECHE, <i>Banco Agrícola</i> , and private financial institutions. One intervention which may have potential would be to pilot financial products with savings and loan cooperatives linked to the associations of producers and buyers of milk. In partnership with private banks or microfinance institutions, technical assistance could be provided to one or two savings and credit cooperatives that want to work on the issue, financing product startup costs until break-even is reached.
Support to LAVECEN	Interview notes and project records.	It may be better not to engage with LAVECEN until the institutional issues have been resolved. Note that IDB is planning comprehensive support to LAVECEN.
Monitoring and Evaluation (M&E)	Every interview with project staff referenced the issues with M&E.	Identify possible conflicts and gray areas among multiple project objectives and clarify them. Allow for customization of results frameworks and ground-truthing with external stakeholders. Develop a value chain data framework with indicators that make sense to track from the perspective of local stakeholders; from those derive project-level data points, and only after that develop project-level targets and indicators. Budget for data collection about the value chain at the time of the baseline, the mid-term, and the final evaluation. Ensure project indicators adequately reflect changes in farming practices resulting from specific interventions, for example activities related to genetics and animal reproductive health, milk quality, animal feed, animal health, and farm management.



1. Introduction and Purpose

1. Introduction and Purpose

1.1. Project Context

Livestock Value Chain

The livestock sector (beef and dairy) in the Dominican Republic (DR) is an important source of local employment and considered to have high potential for growth. However, the sector has historically been underdeveloped and unproductive, providing 13.4% of employment but only contributing 5.8% to GDP, in large part due to low milk productivity and low exports.¹ No livestock census has been conducted since 1982, though we were informed that funding has now been secured to finally carry out an updated census (possibly in early 2022). This contributes to the generally poor quality of available data in the livestock sector.

For the dairy value chain, low levels of formality and know-how leading to low productivity (compared to peer countries) and low quality of milk have prevented the sector from growing and meeting domestic demand, despite laws in place for over 20 years mandating self-sufficiency in milk production.² Even with the COVID-19 pandemic reducing demand from the DR's burgeoning tourism industry, imports of dairy products have increased while prices have fallen, putting even more pressure on domestic producers.³ The majority of the stakeholders in the dairy sector see the improvement in productivity and quality of milk as the most achievable goal in the near term. This includes increased ability to meet domestic demand by addressing structural issues in the value chain – such as a lack of economies of scale and low levels of organization and cooperation among producers and other value chain stakeholders.

The beef value chain is likewise characterized by informality, with most beef-producing farms also dairy farms as well. Beef produced in the DR is mostly consumed domestically. However, unlike with dairy there is a greater opportunity for developing exports. Due to this perception among those in the sector and in the government, there has been a strong desire for the DR to achieve equivalence with US standards to qualify for exports to US, particularly with Puerto Rico.

It is in this context that the United States Department of Agriculture (USDA) funded the Safe Agriculture/Food Export (SAFE) project, to work with the government of DR and stakeholders in the sector to improve productivity, quality and to take actions necessary to achieve equivalence with USDA Food Safety and Inspection Service (FSIS) standards. This includes meeting prerequisites for beef exports to the US. To provide context for this final evaluation of the SAFE project, we first take a deeper look at the livestock value chain and its components (beef and dairy).

¹ OTSCORP. "Safe Agriculture/Food Export (SAFE) Program Dominican Republic Project Baseline Survey," October 13, 2016. *Sistema Presupuestario Dominicano*, "Presupuesto Orientado a Resultados 2020-2023," 2019, pg 259.

<https://www.digepres.gob.do/wp-content/uploads/2019/10/Presupuesto-Orientado-a-Resultados-2020-2023.pdf>

² USDA FAS. "Opportunities and Challenges in the Dominican Dairy Sector," May 6 2019.

³ USDA FAS. "United States Agricultural Exports to the Dominican Republic Reached an All-Time High During 2020 in Spite of the COVID-19 Pandemic," February 22, 2021.

https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20States%20Agricultural%20Exports%20to%20the%20Dominican%20Republic%20Reached%20an%20All-Time%20High%20During%202020%20in%20Spite%20of%20the%20COVID-19%20Pandemic%20_Santo%20Domingo_Dominican%20Republic_02-10-2021

Value Chain Framework

Projects such as SAFE, which operate at the value chain level, are most likely to be effective when grounded in a value chain framework, supported by robust data collection at each level of the chain. A value chain project, to achieve its goals, requires the participation of stakeholders at all levels of the value chain and therefore should be founded on a shared vision agreed upon by these actors. Based on this data and shared vision, the management team can then prioritize interventions that address points of leverage⁴ within the value chain. While the SAFE project successfully completed activities at many different points of the beef and dairy value chains, there were gaps in the design as originally conceived, and in implementation over the project period that hindered the results and impact from adding up to be “greater than the sum of their parts” as a leveraged value chain intervention. We identify these design and implementation challenges in our recommendations and highlight that there is still potential to achieve leveraged impact.

The value chains for the beef and dairy subsectors in the Dominican Republic comprise a series of stakeholders (producers, processors, and buyers) that are aligned into vertical channels. Actors at different stages of each channel are linked to the next stage from production to commercialization. There are players that horizontally support the subsector participants; but the main dynamic involves relationships along the vertical axis, spanning industry functions from the farm level to the final consumer. While some farms specialize specifically in either dairy or beef, it is common for much of the local beef production to come from aging milk cows who are no longer as productive for milk.

Figure 1. Cattle Farm in Puerto Plata



Value chains are typically mapped with vertical channels flowing from the producer level at the base of the value chain up towards end markets (consumers and exports). The beef value chain in DR is comprised of two channels: (i) small family-owned farms – tending to be lower in productivity; and (ii) larger farms usually owning land over 300 hectares – and tending to be more highly productive. In turn, the dairy value chain can be divided into three channels: (i) small farms with less than 20 cows; (ii) medium farms owning between 20 and 50 cows; and (iii) large farms with more than 50 cows.⁵

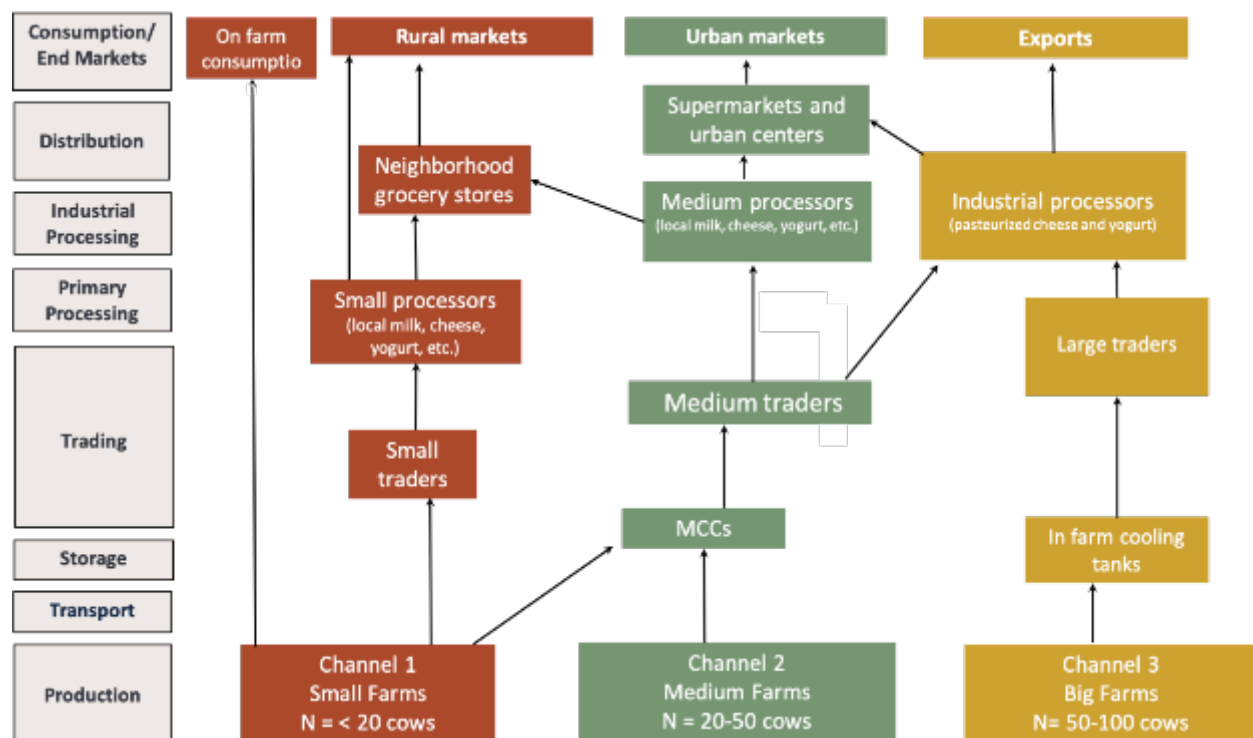
⁴ This term comes from the literature beginning as early as the 1980's at Michigan State University, as concepts from agricultural marketing schools were adapted for use in international development under the term “subsector analysis.” A point of leverage in a value chain may be the point where a large number of small producers come into contact with a single large buyer or type of buyer under certain conditions, or where a single government regulation affects the prices and/or production practices in the whole chain. These are prime points for intervention, where the cost of the intervention is small but the impact, because of the leverage effect, is much larger. See, for example: James Boomgard et. al. “Subsector Analysis: Its Nature, Conduct and Potential Contribution to Small Enterprise Development,” MSU International development Series Working Paper no. 26, 1986. <https://www.canr.msu.edu/fsg/publications/idwp-documents/idwp26.pdf> and Donald C.Mead and Carl Liedholm. “The dynamics of micro and small enterprises in developing countries,” *World Development*, Volume 26, Issue 1, January 1998, Pages 61-74. <https://www.sciencedirect.com/science/article/abs/pii/S0305750X97100109>

⁵ In a forthcoming report “*Los Pequeños Ganaderos en la RD: Una mirada prospectiva a este conjunto productivo*” by Eduardo Ottenwalder and Roberto Pepin (TBA), mapping is based on production capacity, level of formality, and dependencies, including vulnerability to climate change impacts.

Dairy Value Chain: We have approached the dairy subsector through a value chain map consisting of a number of different vertical functions, as well as relevant services at one or more levels (see Figure 2 below). Information is drawn from secondary research as well as from our evaluation team's KIIs and surveys. Our analysis focuses on:

- Production
- Transport
- Bulk collection and storage
- Direct trading by farmers
- Artisanal processing
- Industrial processing
- Distribution
- Retail
- Importing
- Domestic consumption
- Exporting

Figure 2. Dairy Value Chain Map



At the farmer level, regardless of the size, the vertical value chain also includes support service providers that cut across one or more levels, including stakeholders such as: hired laborers (150,000+ employees); veterinarians; extensionists from MEGALECHE under DIGEGA in the Ministry of Agriculture, supported by CONALECHE; feed suppliers; farm and dairy equipment providers; genetic services; financial services (*Banco Agrícola*, CONALECHE and private lending from big processors); government agencies (CONALECHE

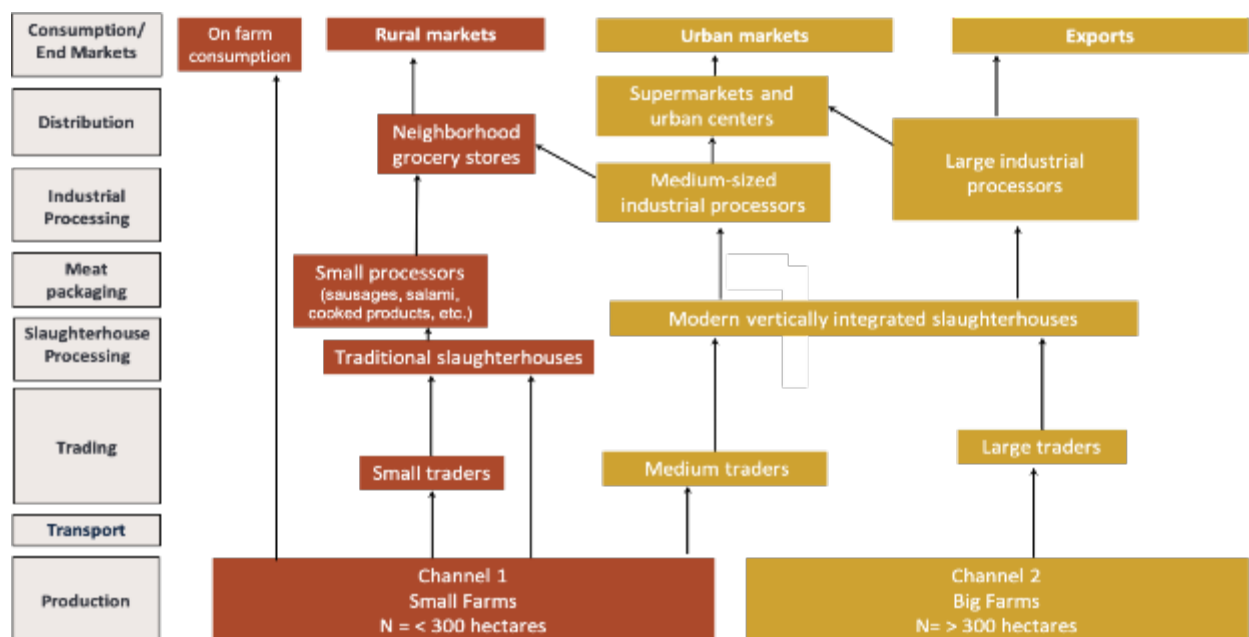
responsible for dairy policy development and implementation; DIGEGA responsible for livestock policy development and implementation; IDIAF responsible for investigation; ONE responsible for statistics); approximately 120 producer organizations, including JAD (80% of farmers are affiliated to a PO, and project grants and technical assistance and training were in great part delivered through them) and; federations such as FEDEGANO and FEGACIBAO that provide training.

Beef Value Chain: The beef subsector includes different vertical functions and services that cut across one or more levels of the value chain (see Figure 3 below). Our analysis focuses on:

- Production
- Intra-farmer trade
- Small processors and meat packing facilities
- Slaughterhouses
- Industrial processing
- Distribution
- Retail
- Importing
- Domestic consumption
- Exporting

At the producer level, regardless of the size, the vertical value chain also includes Support Service Providers that cut across one or more levels, including stakeholders such as: hired laborers; veterinaries; laboratories (LAVECEN and LANA); extensionists (DIGEGA, PROGANA, and Cooperatives); feed suppliers; farm equipment providers; genetic services; product labeling and registry (COMINOR); financial services (*Banco Agrícola*); government agencies (DIGEGA, responsible for livestock policy development and implementation); and producer organizations.

Figure 3. Beef Value Chain Map



Value Chain Dynamics

If there are going to be changes in the dairy and beef subsectors, we must study the **forces and constraints** that drive these changes, and see which channels are growing or have the potential to grow most rapidly. By doing this, it should be easier to understand how we can control those forces and recommend possible ways for making changes. This section is based on the evaluation team's review of the literature supplemented by the evaluation interviews and surveys.

1. Primary Driving Forces

(i) Product demand and marketing strategies

Domestic demand is one of the principal driving forces for producing milk and beef cattle; selling fresh milk and meat; and producing other by-products. The domestic market for dairy products has room to grow, as long as the quality of local milk improves, and is able to compete with imported products already present nationally. In addition, there is ample room for the beef production to grow, as long as the Dominican Republic reaches equivalence and the industrial type of meat can be exported, allowing farmers to breed more heads of cattle in their current properties. In an overall increase output of cattle heads, all other meat cuts could be sold to the tourism sector that today consumes quality imported beef in quantities that currently outgrow national production. In addition, the specialty market could be tapped by marketing strategies, such as promoting products produced by low-income farmers in a developing country, or by certifying the product as being organic, among others.

All major players, with a few exceptional cases, commercialize beef and dairy products in the local market; these products don't have the quality to access the export market. Local prices are usually higher than international prices, due to structural sector limitations such as low production levels, lacking economies of scale and critical mass needed to access production factors at competitive costs.

(ii) Vertical Integration

The best socioeconomic results have occurred in the channels that efficiently integrate the highest number of functions from production to commercialization. Clear benefits can be seen in medium and large producers that reach quality and are able to supply consistent volume, therefore accessing the best prices. Grade A milk can fetch a premium price of \$0.56 (or RD\$32) per liter.

In the channels that are more vertically integrated, comprising medium and large producers, there is a better distribution of profits, with a higher proportion trickling down from the commercialization stage to the producers. Some differences can be seen between prices paid to cooperative member producers or those that have private supply agreements with large dairy buyers such as Rica and Nestlé, or one of the three largest slaughterhouses that produce the highest quality of meat currently commercialized to high-end supermarkets and distributors that

Figure 4. MCC in Maria Trinidad Sanchez



reach the tourism sector. For milk, this price difference can be between \$0.47 (RD\$27) and \$0.56 (RD\$32) per liter.

Jobs are created in a value chain, and the agricultural economy transformed, when people, goods, and processes move from left to right, from small farms on the left to medium sized and industrial farm channels on the right. The higher the producer can get in the vertical channel, the more he/she typically can participate in the labor force, and the more value is added to the product, resulting in increased socioeconomic benefits.⁶ for him. In channels 1 and 2 of the dairy value chain, the producer is closely linked to the MCC; in channel 3 some producers have private agreement with large processors that consistently buy their production and premium prices.

(iii) Value Added

The higher the producer can get in each of the five vertical channels, the more value is added to his/her product, resulting in an economic benefit for him/her. If SAFE had been designed at the outset with the right indicators to track this monetary return, we would have information about the total amounts of financial resources that are transferred from the intermediaries (processors-marketers) to the producers, and from the final buyers to the intermediaries. The difference in these amounts transferred is the value added as a result of the processing-commercialization functions in each channel. Having that information, the amount transferred to the intermediaries can be divided into the amount transferred to the producers, resulting in a “multiplier index” that could show how many times the value of the raw material was increased when sold to the final market. This data was not collected by the project and was outside the scope of the evaluation. In future projects, this data should be collected.

In all three channels the farmer has the opportunity to add value to its product when the fresh milk is transformed into by-products (cheese, yogurt, etc.), resulting in a financial benefit for the producer. The product is then sold to the *colmados* or, in case of higher quality products, to large supermarkets. There is low cooperative participation in adding value to the fresh milk, preventing a larger redistribution of profits among primary producers. Therefore, though there are some social factors considered in how the cooperative operations are set up, there is limited vertical integration to capture the value added by other stakeholder functions higher in the vertical chain. The “Small Channel” in both value chains is the one with the least vertical integration and, especially in the beef value chain, in part depends on coordination mechanisms with other stakeholders of the subsector. It is worth noting that these small producer channels are relevant – especially in the eyes of the government - not necessarily for economic and commercial reasons, but for reasons linked to food security, income stability, and slowing immigration towards urban areas.

2. Secondary Driving Forces

(i) Technological Change

The SAFE project aimed to vertically link producers to processing activities, therefore adding value to their products and increasing their financial return. An example is the dairy producers and their relationship with

⁶ Man-Kwun Chan. “Making Agricultural Value Chain Programmes Work for Workers: A Practical Guide for Development Donors and Practitioners,” Women in Informal Employment: Globalizing and Organizing (WIEGO) Technical Brief 4, January 2012. <http://www.fao.org/3/at405e/at405e.pdf>

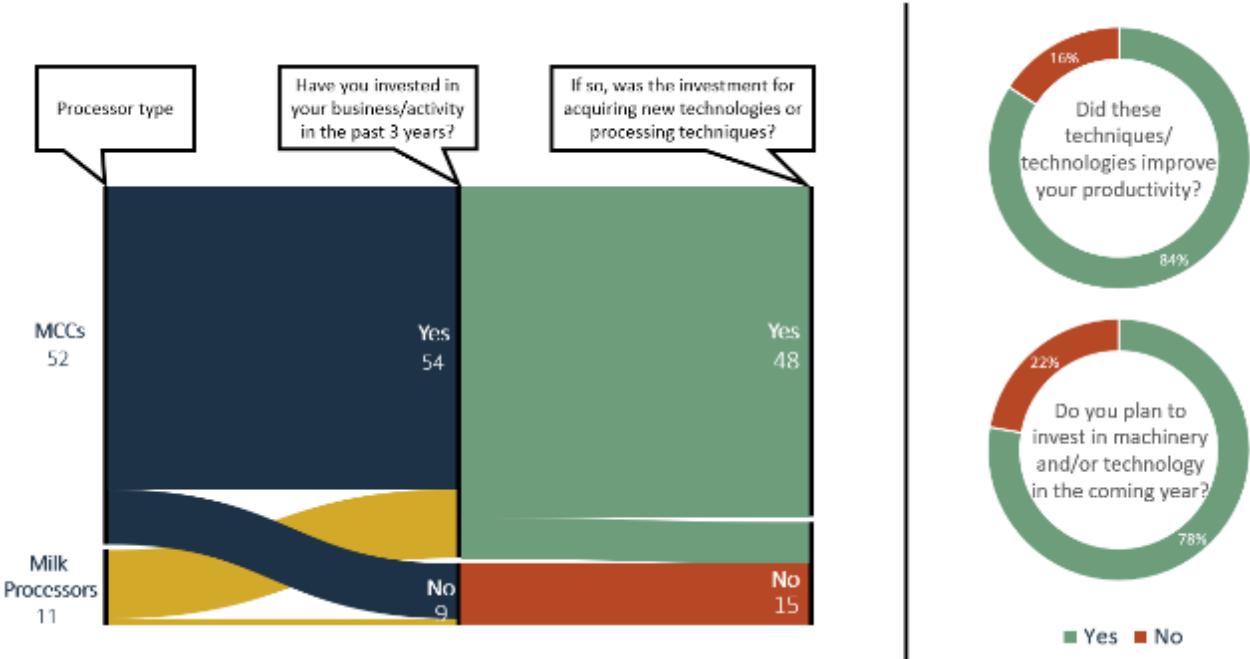
World Bank. “Sector Competitive Analysis Tools (SCAT),” pp. 140-144

MCCs: some simply submit their product, and others are part of POs that own MCCs. Under the program, this last group was more interested in incorporating new production technologies to improve quality, therefore influencing the price paid by the industrial processors.

(ii) Increased Revenue

Every producer interviewed, without necessarily having performed a cash flow analysis (most of them were small producers without financial knowledge), agreed that producing higher grade milk and more liters-per-cow-per-day (l/c/d) increased their revenue. Interviews with Nestlé agronomists indicated that project beneficiary producers were able to, on average, move up from grade “C” to grade “B” milk and above in quality. According to indicators collected by the SAFE project team, there was a 36% increase in the volume of grade “A” milk sold to processors by USDA supported milk collection centers indicating an increased production of higher-grade milk during the project period. With Nestlé, a large buyer for MCCs, buying milk at RD\$31 for the highest-grade milk and RD\$ 27 for the lowest grade milk (as indicated in interviews with Nestlé agronomists), improvement in grade led to a rise in revenue for the producers. The results indicators collected by the project indicated that 1022 dairy farmers were supplying grade “A” milk to USDA supported MCCs by the end of the project period. By incorporating production technologies and by changing supply relationships between the farmer and the MCCs, increased revenues were achieved. For instance, Figure 5, below shows how investments in technologies like cooling tanks, appropriate milk containers, etc. through the SAFE project led to improvements in productivity for MCCs and milk processors, as described by them in surveys conducted by the evaluation team.

Figure 5. Example of How New Technologies Enhanced Productivity of Milk Processors and MCCs



The higher the producer is integrated in the vertical channels, the more profitable their operation becomes. The multiplier effect of value added confirms this assumption. In addition, those channels that commercialized their product to market niches such as special yogurt and cheese were also more profitable.

(iii) Large Firm Characteristics

Large organizations, mainly at the processing and marketing functions, have opened new opportunities for small producers. At the production level most of the producers are small; at the consolidation level MCCs are considered small too. But at the processing and commercialization level there are all kinds of stakeholder sizes; some large organizations play the role of anchor companies, providing “demand-pull” in a market-driven value chain from producers to consumers.

Value Chain Constraints

Every level of the value chain faces its own set constraints and challenges. Table 1, below, lays out the constraints faced by value chain function as well as the organizations involved at each level to address these constraints, based on the evaluation team’s review of the literature and evaluation interviews. This table is an inventory, but further analysis should be done by projects working in the value chain, based on data collected at each level, to analyze these constraints and identify points of leverage where interventions can make the most impact.

Table 1. Constraints in the Livestock Value Chain by Function

Functions	Constraints	Organizations Involved
Whole Value Chain		
Governance of the subsector value chain	1. Lack of statistical information to make decisions at the subsector level 2. Lack of intra and inter-institutional coordination between the links	1. CONALECHE, DIGEGA, <i>Oficina Nacional de Estadísticas</i> (ONE) CONALECHE: Industry regulation and facilitating spaces for dialogue and intermediation between producers, processors, and suppliers of inputs. Provides resources to producers on soft loans
Support Services		
Support services and inputs	1. Low genetic improvement and limited technology in the extension system 2. Limited access to financing 3. Warehouses and supply businesses without financing alternatives such as agreement with industrial processors to deduct invoices from the milk remission 4. Production of alternative feed for livestock (for greater productivity and pasture quality)	1. DIGEGA and <i>Instituto de Desarrollo de Investigación Agrícola y Forestal</i> (IDIAF) 2. Lines of credit from CONALECHE, <i>Fondo Especial para el Desarrollo Agropecuario</i> (FEDA), and <i>Banco Agrícola</i>. 3. CONALECHE 4. CONALECHE y DIGEGA
Vertical Levels of the Value Chain		
Producers	1. Low milk quality 2. Lack of universal traceability of livestock at the level of production, health, marketing, planning levels 2. Lack of training in good practices (associativity, federations and	1. CONALECHE 1. <i>Departamento de Sanidad Animal de la Dirección General de Ganadería</i> (DIGEGA) in the Ministry of Agriculture. 2. DIGEGA, MIC and CONALECHE 3. FEDA and del <i>Banco Agrícola</i>

	organizations of producers and processors) 3. Lack of financing 4. Non-existent insurance adapted to the sectors (very limited products through AGRODOSA, with no support for private livestock insurance) 5. Seasonal price variability due to lack of heat synchronization (i.e., concentration of livestock births in certain periods of the year) 6. Lack of knowledge of the cold chain and logistics 7. Use of unsuitable packaging 8. Lack of technical know-how in sustainable use of natural resources, pasture and forage management 9. Lack of associativity among producers	4. <i>Fundación REDDOM, Aseguradora Agropecuaria Dominicana (AGRODOSA)</i> 5, 6, 7. Extension services of DIGEGA 8. <i>Asociación de Productores de Leche (APROLECHE)</i> 9. Cooperatives (e.g. COOPAGAMPTA, COOPESUR, COOPFEDEGANOS) Associations: (e.g. <i>Asociación Dominicana de Industrias Lácteas (ADIL), Asociación de Procesadores de Lácteos y Derivados (ADOPROLAC), Asociación de Queseros, Asociación de Importadores de Leche; Junta Agroempresarial Dominicana (JAD).</i>
Intermediaries	1. Inadequate cold chain and logistics 2. Inefficient collection routes	1 and 2. Intermediation (East Region), which mostly sells to cheese manufacturers, and provide finance to and sell to truckers
Milk Collection Centers (MCCs)	1. Low milk quality due to lack of microbiological control, lack of certification in GAP and GMP. 2. Need for group purchases of inputs and contracting of services 3. Lack of infrastructure to disaggregate milk qualities (Currently MCCs take the price of the lowest quality aggregated milk)	1. DIGEGA 2. Alliance with universities and tech institutes. Processing cooperatives COOPAGAMPTA in Monte Plata; and COOPESUR in Santiago Rodriguez. Nestlé is the one that most encourages this concept. CONALECHE wants to replicate it. 3. Producer organizations (POs)
Intermediation (East Region)	1. Inadequate cold chain and logistics	They mostly sell to cheese manufacturers, and sell to truckers who finance
Artisanal processing (cheese)	1. Health and safety regulations not followed/enforced 2. Cheeses not differentiated 3. Inadequate cold chain and logistics	1. <i>Instituto Dominicano de Calidad (INDOCAL)</i> in the Ministry of Industry and Trade 5. INDOCAL

	4. Lack of cooperation among cheese producers; lack of associativity to develop collective brands, with quality and origin identification. 5. Lack of technical standards	
Industrial processing	1. Dominance of large processors 2. Lack of strong producer organizations (POs)	1. Large milk processors (northeast and south): Rica, Induveca, Nestlé, <i>Pasteurizadora María</i> Pasteurized cheese and yogurt: MilkAgro, owned by <i>Grupo Mejía Arcalá, Geo, San Juan, Michel, Cambre, El Banilejo</i>, and <i>Oleaga</i> 2. There are three large cooperatives of small and medium-sized livestock farms: COOPAGAMPTA in Monte Plata, COOPESUR in Azua (with partners throughout the southern region) and COOPFEDEGANO, based in Santiago Rodríguez.
National commercialization	1. Differential payment based on quality not always applied correctly	1. <i>Federación Nacional de Comerciantes y Empresarios de la República Dominicana</i> (FENACERD) represents 65k <i>colmados</i> = 70% of domestic trade
Imports	1. Lack of appropriate labeling standards for milk imports.	1. <i>Dirección General de Aduanas y Pro Consumidor</i>.
Final consumption	1. Lack of a massive campaign to consume Dominican milk	1. <i>Organismo de Defensa al Consumidor</i> (PRO CONSUMIDOR), Ministry of Health, CONALECHE, SIDOCAL (<i>Sistema Dominicano de la Calidad</i>)
Exports	1. Dairy: The sector's lack of economies of scale, critical mass of production, as well as high costs of production and low quality prevent it from being a competitive sector for exports in the near term. 2. Beef: Has potential to become a competitive export sector, especially if FSIS Equivalence can be achieved to allow exports to US (especially Puerto Rico)	1 & 2. USDA, DIGEGA

1.2. Project Description

The Safe Agriculture/Food Export (SAFE) project (known as PROGANA in Spanish) is a five-year project funded by the United States Department of Agriculture (USDA), Foreign Agricultural Service (FAS) through the Food for Progress (FFPr) program. On September 29, 2015 the SAFE project was awarded to the National Cooperative Business Association CLUSA International (NCBA CLUSA) as the leading implementer, along with its implementing partners.

The *Junta Agroempresarial Dominicana* (JAD) is the primary local partner, responsible for the provision of extension services and building producer capacity. Additional technical assistance was provided through two international partners, the Borlaug Institute for International Agriculture and its Center for Food Safety at Texas A&M (TAMU) – responsible for providing technical assistance on Sanitation Performance Standards (SPS) measures and food safety systems – and Cooperative Resources International (CRI/GENEX) – responsible for providing technical assistance on genetics and breeding. The project was funded by commodity donations through a Commodity Credit Corporation (CCC), initially estimated to be worth US\$16,212,121 once monetized.⁷ The project targeted 14,407 individuals, out of which 13,200 were producers and 1,207 public and private extension workers, beef and dairy processors, decision makers, public and private stakeholder representatives, and 60 producer organizations.

Figure 6. SAFE Project Implementation Areas



⁷ Commodities donated for initial project funding included 2,120 MT of yellow grease, 2,200 MT of inedible tallow, and 16,100 MT of crude degummed soybean oil (CDSO). Unfortunately, due to monetization shortfalls the project only received \$16,026,920.17 of the estimated total even after being awarded additional commodity by USDA in September 2020.

The project targeted 11 dairy and beef producing provinces in the Dominican Republic (Santiago Rodríguez, Dajabón, Independencia, San Juan, Monte Plata, La Altagracia, Hato Mayor, El Seibo, María Trinidad Sánchez, Duarte and Puerto Plata), with two overall objectives:

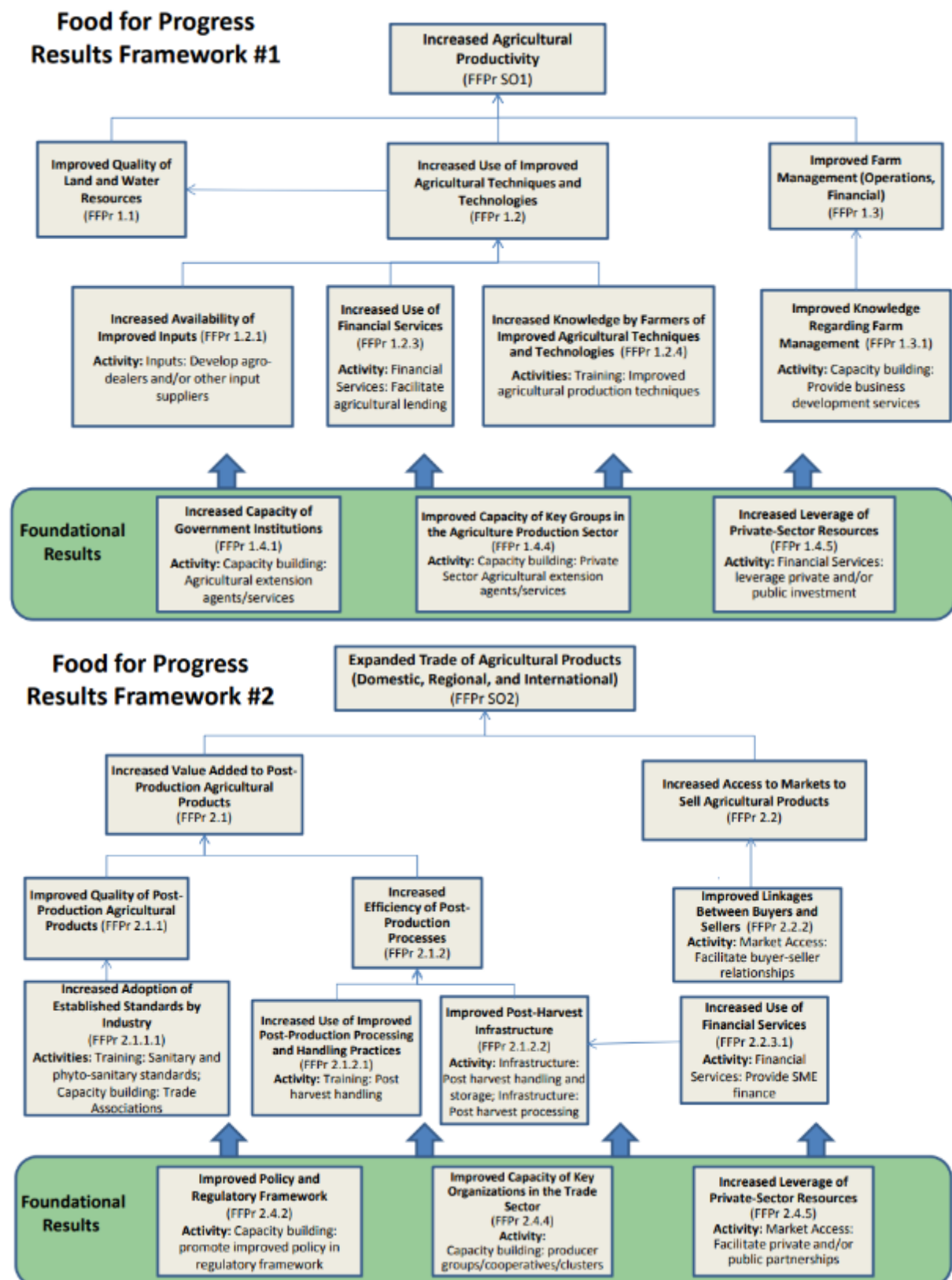
1. **Improve agricultural productivity** in the livestock (beef and dairy) value chain by increasing the use of improved techniques and technologies; improving farm management; increasing the availability of improved inputs and use of financial services; strengthen the capacity of government institutions and key groups; and increasing the leverage of private sector resources.
2. **Expand trade of beef and dairy products** by adding value to post-production; increasing the adoption of established standards; increasing access to markets; building linkages between buyers and sellers; improving post-harvest infrastructure; increasing the use and efficiency of post- production processes; improving the policy and regulatory framework; and strengthening the capacity of key organizations in the trade sector.

1.3. Results Framework

The SAFE project's approach to achieving its two objectives of increased agricultural productivity and increased trade, are articulated in the dual results frameworks shown in Figure 7 below. These frameworks represent the project's theory of change and are directly linked to the expected results for the Food for Progress projects. They draw closely from the Food for Progress program-wide results-framework.

To achieve these objectives, the project relied on 12 activities including: 1) improving farm management; 2) increasing the availability of improved inputs and use of financial services; 3) strengthening the capacity of government institutions and key groups; 4) increasing the leverage of private sector resources; 5) adding value to post-production; 6) increasing the adoption of established standards; 7) increasing access to markets; 8) building linkages between buyers and sellers; 9) improving post-harvest infrastructure; 10) increasing the use and efficiency of post- production processes; 11) improving the policy and regulatory framework; and 12) strengthening the capacity of key organizations in the trade sector.

Figure 7. SAFE Project's Results Frameworks



1.4. Purpose of the Evaluation and Research Questions

The purpose of this final evaluation is to provide an independent, third party assessment of the performance of the SAFE project in achieving its objectives. Previous evaluations of the SAFE project included a baseline study conducted by OTSCORPS and a mid-term evaluation conducted by J.E. Austin Associates.

The final evaluation is focused on answering key questions related to the SAFE project's relevance, effectiveness, efficiency, impact, and sustainability and will include metrics on the project's progress against its original targets for 89 project indicators (58 activity indicators and 31 results indicators as of the writing of this report). This evaluation will also assess the adjustments made over the course of the project including those based on mid-term evaluation, identify and document lessons learned over the course of the implementation, and make recommendations for the future. This final evaluation will also advance the broader Learning Agenda for USDA's Food for Progress program by contributing findings to the dairy and beef value chains in the Dominican Republic related to priority agenda items including value creation (i.e., trade expansion and market development), market linkages, and quality and standards.⁸

The research questions for this Final Evaluation ask about the **relevance** of project design and activities for the stakeholders, the **effectiveness** of implementation, the **efficiency** of project organization and implementation, the **impact** of project activities on participants, and the **sustainability** of successful project interventions going forward. Table 2 below lists the key research questions for this evaluation.

Table 2. Final Evaluation Questions (EQ)

EQ	Relevance
1.1	To what extent has the project responded to the actual needs and interests of the target farmers, associations, groups, and other stakeholders?
1.2	To what extent does the project integrated or strengthen the national sectoral strategy to improve production and market access?
1.3	To what extent does the project fit into the strategies of the DR government?
1.4	What was the added value of the project considering perspectives from key stakeholders such as USDA/W, USDA/Santo Domingo, POs, and implementing partners?
Effectiveness	
2.1	To what extent have the expected results of the project been achieved?
2.2	What factors have been critical to the achievement or nonachievement of project objectives?
2.3	Has the project led the planned activities? Has it achieved the expected results?
2.4	What adaptations, if any, were made to the project's implementation process in order to achieve project objectives and targets based on mid-term evaluation findings?
2.5	To what extent the activity changes after midterm evaluation results and recommendations were successful in improving effectiveness and ability of the project to achieve its expected results?
2.6	What were the planned and unplanned outcomes that can be attributed to the project?
2.7	What are the evolutions of the project indicators?
2.8	Has the implementation process (approach - methodology) been effective?

⁸ The Food for Progress Learning Agenda is available here: https://www.fas.usda.gov/sites/default/files/2020-03/learning_agenda_final.pdf#:~:text=Food%20for%20Progress%20Learning%20Agenda%20on%20Trade%20Expansion,timely%20research%20questions%20to%20inform%20evaluation%20and%20policy

2.9	What is the evidence and estimate by how much agricultural productivity and the marketing of agricultural products have been improved through project actions?
2.10	To what extent did the Livestock Farmer Field School methodology contribute to improved agrobusiness management, production and quality compared to traditional adult education methodologies?
2.11	To what extent did project activities prepare stakeholders to participate in virtual activities versus in-person as a result of the global pandemic from the novel coronavirus COVID-19?
2.12	To what extent did stakeholders benefit from the project's attempts to provide virtual trainings as a result of the pandemic?
2.13	To what extent did the technical assistance received by beneficiaries improve the management of their agrobusinesses, production and quality?
2.14	To what extent did beneficiaries adopt the project's improved practices and technologies and improve their agrobusiness's management, production, and quality?
Efficiency	
3.1	To what extent, appropriateness, and functionality have the various units/ levels of management and coordination (grants, project staff, M&E, local committees, USDA/W, USDA/Santo Domingo and others) supported the implementation of the project?
3.2	To what extent were the size and composition of the teams appropriate to the strategies?
3.3	To what extent do the various project activities support each other?
3.4	To what extent has the process of project implementation including finance and administration optimized time and resources?
Impact	
4.1	What was the impact of the project on: 1) Increased household income, 2) Increased agricultural productivity, 3) Increased market access and expanded trade, 4) Increased quality of agricultural products, 5) Increased public and private extension services
4.2	How does the beneficiaries' perception of the project's achievements, especially the increase in productivity and income vary across value chains and regions?
4.3	What is the legacy of the project? Organize achievement categories from most significant impact to least significant impact.
4.4	Which activities were the most successful and the least successful? Why? Breakdown by intervention / activity.
4.5	To what extent have beef and dairy ranchers' capacity to respond to on-farm shocks and daily activities improved as a result of the project, and why?
4.6	How has the project's activities strengthened local producer organization's governance, member services and equity, as well as incomes?
Sustainability	
5.1	To what extent have local actors (JAD, cooperatives and farmers' organizations, MCCs, Slaughterhouses, local government and civil society groups) been involved in the management of the project?
5.2	Which local counterparts have increased their capabilities to continue with the project's actions, and why?
5.3	Which partnerships were the strongest and why?
5.4	What is the probability that these actors will be able to provide succession?
5.5	Are the techniques and technologies used in the project easy to maintain locally? To what extent are the conditions for local control of these techniques and technologies guaranteed? Are people facing any additional challenges in light of the pandemic? Prioritize activities to continue after the project closes from most likely to least likely.
5.6	To what extent do the project interventions support and stimulate the local economy? When possible, consider adding tools to get insight on quantifying the project's impact on the local economy.
5.7	Which of the following project impacts are likely to be sustained and/or scaled-up after the project closes? 1) Increased household income, 2) Increased agricultural productivity, 3) Increased market access and trade, 4) Increased quality of products.

- 5.8 Identify and explain short and mid-term challenges to sustain program results, and what actions could be taken before the end of the project to mitigate those challenges, if any.
- 5.9 To what extent are local government actors likely to achieve FSIS equivalence and continue strengthening the food safety inspection system?
- 5.10 To what extent did modifying the traditional training methodology to the methodology in the “Collective Efficiency Schools” permit improved learning and application of the concepts?



2. Evaluation Design and Methodology

2.1. Evaluation Design

The design of the final evaluation of the SAFE project followed a mixed methods approach using qualitative and quantitative analysis to address the evaluation's research questions. A quasi-experimental design was not employed since control group data was not collected during the early stages of the project. However, in agreement with NCBA CLUSA, the pre-post research design was supplemented with data collected from a comparison group (non-beneficiary producers). This was a helpful benchmark for the data collected from beneficiary producers. While not as robust, this comparison group provided useful insights. The process of creating the comparison group, its composition, and its limitations are discussed further below.

The evaluation implementation was organized into three main phases of work:

- Phase No. 1: Inception and Preparation for Field Work
- Phase No. 2: Fieldwork
- Phase No. 3: Analysis and Report

Because the evaluation was implemented during the COVID-19 pandemic, the following principles were followed by the evaluation team:

Just Results guiding principles for field work during the COVID-19 pandemic

1. Whenever work can be conducted remotely, it should be done so to avoid the risk of COVID-19 exposure.
2. All team members have the right to withdraw from the field or country, at any time.
3. PCR testing is required by all team members before entering the country and/or at the beginning of activities, even when not required by airlines and/or country guidelines.
4. Using protective personal equipment (PPE), using outdoor amenities, and social distancing is required whenever possible.
5. Large meetings must be generally avoided, and during in-person meetings, wearing masks and social distancing is mandatory for the team, including enumerators.
6. In the case of a positive COVID-19 test, or exposure to an individual who tests positive, team members are required to self-quarantine.
7. *Dominican Republic specific:* Curfews and local government regulations must be respected and adhered to, local media updates must be monitored, and government mask and social distancing mandates must be followed at all times.

Phase 1: Inception and Preparation for Field Work

In preparation for the field work for the final evaluation of the SAFE project, the evaluation team followed these steps:

- **Review of Project Documentation and Secondary Information:** Following an initial kick-off meeting, the SAFE team shared background materials which were reviewed and analyzed by the evaluation team. This included all relevant project documentation and secondary sources related to SAFE, including baseline and midterm evaluations, studies carried out under the project's auspices, contracts and other administrative documents, reports on progress/monitoring/implementation of the project, and the SAFE project's M&E database and indicators.
- **Finalization of Methodology and Inception Presentation:** The evaluation team also further refined and finalized the evaluation methodology, sampling approach, and plan for the field work. The methodology and approach, including a plan articulating clear steps for implementation was presented to the NCBA CLUSA team. This replaced a full inception report, due to an accelerated timeline to get to the field.
- **Finalization of Data Collection Tools:** Prior to field work, all data collections tools were finalized, including surveys, interview guides, and guides for focus group discussions (FGDs). Training materials for the initial enumerator training, held at the SAFE project and JAD offices in Santo Domingo, were also prepared.

Phase 2: Field Work

Field work included data collection in all 11 provinces targeted within the SAFE project, along with key stakeholders in Santo Domingo and elsewhere as required. Data collection and training of the enumerators took place over a six-week period. During the course of the evaluation team's fieldwork, the following steps were taken:

- **Training:** Training was conducted at the SAFE and JAD offices in Santo Domingo over a 4-day period, as a joint learning and iterative editing process, to ensure the enumerators had a complete understanding of all the data collection tools to be used as well as to ensure the tools reflected the local context, and language commonly used by project stakeholders. Following training a day of testing and validation of the tools was carried out in Monte Plata, after which all tools were finalized.

Figure 8. Training at the JAD office in Santo Domingo



- **Data Collection:** Data was collected through a variety of means, including surveys, KIs, and FGDs with key stakeholders and beneficiaries of the SAFE projects (as described in detail in the section below).

Phase 3: Analysis and Report

Following the completion of data collection, initial data analysis was carried out over the next two weeks, and a presentation on the preliminary findings and conclusions of the evaluation was presented to NCBA CLUSA and SAFE project staff. Following this presentation, the Just Results team drafted this report to provide the findings of the final evaluation to USDA, the SAFE project team, and other relevant stakeholders.

2.2. Sampling Methods

Producer Surveys

For the producer surveys we used probabilistic sampling to obtain a random representative sample of beneficiary and comparison groups, using a multistage stratified approach to account for distribution by province. For beneficiaries, additional strata were used to account for the distribution by herd size, and number of follow up visits over the course of the project. The beneficiary and comparison group lists were drawn from the same two sources: SAFE beneficiary list developed since project inception, and the list of suppliers of the milk collection centers. Data cleaning was needed to select only the farmers.

Beneficiaries were defined as producers with whom the SAFE project worked and participated in at least one intervention and received at least one farm visit by project extensionists.

Comparison Group

The project baseline survey was sampled from the *Precenso Nacional Agropecuario* (ONE, 2016), a preliminary farm census conducted in 2015 which included a count of all farmers in the country through which all livestock farms in the 11 project provinces could be identified. From the cattle farms in the project provinces, a sample frame was defined – all farms of less than one Ha (16 *tareas*) in size and those larger than 312.5 Ha (5000 *tareas*) were excluded. This yielded a sample of 20,235 for the baseline survey, which was further stratified by farm size to yield a final sample of 476 farms – 513 were surveyed and 505 responded in the baseline survey⁹.

For the beneficiary group of farmers to be included in the project, NCBA CLUSA prioritized farmers that attended initial workshops and maintained sustained interest in the project activities, focusing on farmers that resided in the geographic scope of the project, owned their own or communal land, and supplied the milk collection centers or meat processors¹⁰. Because project participants were prioritized during selection based on their indications of willingness to participate in the project, it is possible that these participants exhibited higher willingness to seek project training and opportunities, which could have affected outcomes and also introduce bias into the sample of beneficiaries.

⁹ OTSCORP. "Safe Agriculture/Food Export (SAFE) Program Dominican Republic Project Baseline Survey," October 13, 2016.

¹⁰ Proyecto Fortaleciendo la Cadena de Valor de la Ganadería Dominicana (Progana) Safe Agriculture / Food Export Project (Safe) (USDA - DR). 27 March 2019. *Estrategia Y Plan De Trabajo Componente: Servicios Financieros*

During the evaluation, the team realized that a pre-post only research design would limit the full understanding of the project outcomes. Due to this, a comparison group approach was added with agreement with the NCBA CLUSA team. The comparison group comprised producers that were eligible to participate in the project but did not receive any of the interventions. These producers were similar to the beneficiary producers; however, the project lacked the resources to bring technical assistance and inputs for more producers and thus, they were not included in the project. In 2019, the project signed a memorandum of understanding with the Ministry of Agriculture of the Dominican Republic to provide resources to include more producers. However, due to the COVID-19 pandemic these resources had to be redirected to pandemic relief and thus, additional producers could not be added.

The comparison group sample was determined using the same methodology as the beneficiary producers' sample and drawn from producers whose contact information was already captured in the SAFE project's database, but who were not beneficiaries of the project. It is important to note that prior to sampling, data on farmers' provinces was available but farm size was unavailable.

An analysis of data collected through surveys of the beneficiary and comparison group samples showed that differences between the groups in key characteristics including regional distribution, sex distribution, producer type, total land used, and average number of cows milked daily, was nominal (See Annex 2 for detailed analysis). Farmers from the comparison group and farmers from the beneficiary group were distributed similarly across provinces. The same was true for sex distribution, with 90.2% of the beneficiary group reporting as male, and 86% of the comparison group reporting as male. The comparison group and beneficiary groups were also similarly disaggregated by producer type – whether the farmers produced milk, meat, or both milk and meat (See Figure 9). Looking at other metrics like total land use, the beneficiary group reported a mean total land use of 544 *tareas* and the comparison group reported a mean total land use of 498 *tareas*. Both groups also had similar average number of cows milked, with the beneficiary group averaging 19.4 cows milked and the comparison group averaging 20.9 cows milked. The difference in means for these two metrics (land use and cows milked) was not statistically significant (See Annex 2).

While the comparison group provides an otherwise similar set of producers to the beneficiary group, there still is a potential for some bias due to the fact that the comparison group can only be compared to the beneficiary group at one point in time (especially relevant, for example, is the lack of prior information on farm size). The comparison group is statistically valid across the metrics discussed above. However, there is possibility of selection bias since the comparison group producers were initially expected to be project participants but were not included in the final beneficiaries (See Limitations section). As stated earlier, due to study limitations, difference in outcomes between comparison and beneficiary groups cannot be attributed to project activities. Despite this, the comparison was effective in that it provided useful information to triangulate with data collected by the project through extensionist farm visits and project surveys (see discussion in Findings section).

Figure 9. Distribution of Producer Types in Beneficiary and Comparison Group Farmers

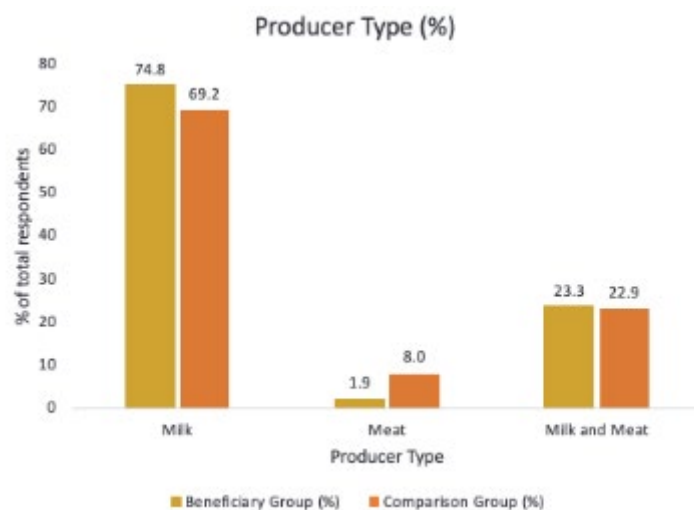


Table 3. Producer Sampling Frame by Province

Province	Beneficiary Group				Comparison Group	
	Population		Sample		Sample	
Dajabón	1008	18%	99	18%	90	18%
Duarte	244	4%	24	4%	22	4%
El Seibo	324	6%	32	6%	29	6%
Hato Mayor	276	5%	27	5%	25	5%
Independencia	186	3%	18	3%	17	3%
La Altagracia	383	7%	37	7%	34	7%
Maria Trinidad Sanchez	134	2%	13	2%	12	2%
Monte Plata	434	8%	43	8%	39	8%
Puerto Plata	848	15%	83	15%	76	15%
San Juan	1036	19%	101	19%	93	19%
Santiago Rodriguez	647	12%	64	12%	58	12%
Total	5520		541		493	

The sampling methodology followed a three-step process. In the first step we used the formula below to calculate the sample size, n , where p is the p-value, e is the error value, Ne is the population, and z is the z-score.

$$n = \frac{p * (1 - p) * \frac{z^2}{e^2}}{1 + (p * (1 - p)) * \frac{z^2}{Ne^2}}$$

Calculated at 95% confidence interval and 4% error, we arrived at a sample sizes of 541 for beneficiary producers. For the comparison group, the sample was calculated based on a theoretical population of

50% of the beneficiary population which compares conservatively within what would be best practice if a control group had been taken.¹¹

In the second step, the size of each stratum was calculated using proportional allocation. Proportional allocation of sub-sample sizes is determined relative to their sizes in the total population using the following formula, where n_h is the sample size for the stratum, N_h is the population size for stratum h , N the total population size and n is the total sample size.

$$n_h = (N_h/N) * n$$

For both beneficiary producers the stratum used to calculate the sample included: province, herd size, and number of visits by project extensionists. For the comparison group only province was used, since information on herd size was not available and no visits were made to these producers by project extensionists.

In the final step, random samples were drawn according to the proportionate multi-stage random sampling technique described. Producers were selected randomly according to each stratum in the following stages: province, Farm size, Number of visits. We use the random value function in Excel to assign a random value which was used to draw the sample.

During implementation of the evaluation, issues with some of the contacts in the SAFE project's M&E database were determined which required a replacement sample to be drawn for producers who were not in fact beneficiaries of the project. These problems with the M&E database were the result of changing systems and data collection challenges early in the project. While the second leadership team had led a data audit which had fixed many of the problems, some issues remained (see the Efficiency section for further discussion).

Following additional information provided by the project team, a replacement sample was drawn to substitute those individuals in the original sample which were shown to not be producers or which could not be contacted after completing the series of required steps (i.e. contact by phone, physical address, asking extensionists for help, asking producer organizations for help). Those who were successfully contacted and were in fact producers, but chose not respond to the survey, were not replaced. The same stratified random sampling method was used to make replacements in such a way as to keep proportions nearly identical, while only drawing from farms with contact info and which are shown to be producers. These measures were taken to ensure that only producers were included and to maximize the enumerators chances of being able to contact them. These challenges and this replacement sample process led the field work to extend to six weeks rather than the original four weeks planned. As shown in Table 5 below, from a sample of 541 beneficiary producers contacted, 322 responded (60% response rate). From a sample of 493 comparison group producers contacted, 212 responded (43% response rate).

Processor Surveys

In addition to the surveys of producers, a smaller survey of all processors which were involved in some way with the project was also conducted. In this case, processors are defined to include milk collection centers (MCCs), milk processors (e.g., *queserías* and yogurt makers), and beef processors (e.g., slaughterhouses, meat packing). Because the number of processors included in the SAFE project's

¹¹ Mark H. White. "How Big Should the Control Group be in a Randomized Field Experiment?" April 20, 2018. <https://www.markhw.com/blog/control-size>

database was relatively small, the sample for the processor survey is equal to the entire population of those included in the SAFE project's database.

Table 4. Sampling Frame for Processors

Province	Total	Breakdown of Sample Type		
		MCCs	Milk Processors	Beef Processors
Dajabón	14	11	3	0
Duarte	6	2	4	0
El Seibo	4	4	0	0
Hato Mayor	5	4	1	0
Independencia	0	0	0	0
La Altagracia	7	0	7	0
Maria Trinidad Sanchez	1	1	0	0
Monte Plata	8	5	3	0
Puerto Plata	16	11	5	0
San Juan	7	7	0	0
Santiago Rodriguez	16	15	1	0
Distrito Nacional	4	0	0	4
Total	88	60	24	4

Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs)

KIIs consisted of in-depth interviews with individuals or small groups of 2-4 people from a single organization. Participants were chosen through purposive sampling starting with project staff, project partners, and key stakeholders involved in project activities including government stakeholders, producer organizations (POs), financial institutions, and various value chain actors. A snowball approach was used to access the largest number of relevant stakeholders, rather than defining an exact number of KIIs from the start.

Purposive methods were also used to select FGD locations and participants for FGDs with private extensionists and producers, taking into account location distribution and ease of access. SAFE project staff and extensionists who worked in the provinces with the project helped identify and gather participants. One FGD was also conducted at the SAFE project offices in Santo Domingo with MEGALECHE extensionists involved in the project. A summary of FGDs conducted is included in Annex 5.

2.3. Data Collection Methods

The evaluation team arrived in Santo Domingo the weekend of February 20-21, 2021 to train a team of nine enumerators and begin data collection. Training was conducted as a joint learning and iterative editing process, to ensure the enumerators had a complete understanding of all the data collection tools to be used and to ensure the tools reflected the local context, and vocabulary commonly used by project stakeholders. Testing and validation of the tools was carried out in Monte Plata, following the training, after which all tools were finalized for use. All tools including surveys, KII and FGD guides are provided in Annexes 4 and 5.

Figure 10. Data Collection Approach

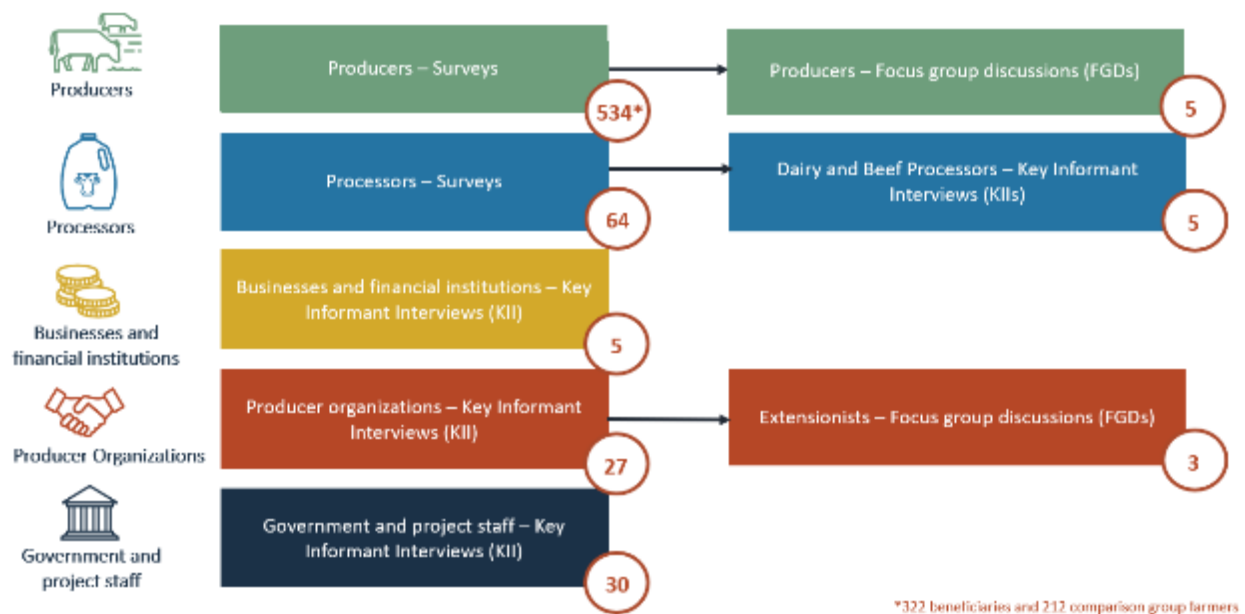


Figure 10 above shows the approach used to collect data from each category of stakeholders:

- Producers:** Data collected from producers came from two sets of tools, surveys of 322 beneficiary producers and 212 comparison group producers (as described in the Sampling Methods section above) and FGDs, to focus in on producer perceptions of value chain challenges as well as project performance.
- Processors:** We received 64 responses for our survey of processors – defined as milk collection centers (MCCs), milk processors (e.g., *queserías* and yogurt makers), and beef processors (e.g., slaughterhouses, meat packing). KIIs were also conducted with key processors who had been involved in some way with the SAFE project, to gain more in-depth understanding of their perspectives. This included both smaller processors such as *queserías* (including *Delicel* and *Queseria Rottis*) and larger entities like MERCARNE.
- Businesses and Financial Institutions:** Other businesses in the value chain who were connected to the project activities in some way, were also interviewed. This included domestic and international companies including Nestlé, Grupo Rica, and Organic Valley. KIIs with financial

institutions included those with some connection with the project or others active in the value chain (e.g., Banco ADOPEM, ADEMI). *Banco Agrícola* was contacted but declined to be interviewed.

- **Producer Organizations (POs):** KIIs were held with staff from dairy and beef associations, cooperatives, and federations both in Santo Domingo and in each of the provinces. FGDs were also held with private extensionists hired by POs through the project in select provinces.
- **Government:** KIIs with representatives of numerous government agencies related to the livestock value chain were conducted. This included *Dirección General de Ganadería* (DIGEGA), *Dirección General de Medicamentos, Alimentos y Productos Sanitarios* (DIGEMAPS), and *Instituto Dominicano para la Calidad* (INDOCAL) among others. An FGD was also conducted with MEGALECHE extension staff.
- **Project and Partner Staff:** KIIs with project and partner staff included NCBACLSA and JAD staff based in DR as well as NCBA CLUSA headquarters staff, USDA counterparts, and international partners from GENEX and TAMU.

Table 5, below, shows the response rates for each of the surveys collected. For beneficiary producers and processors, the response rates were well within the expected range for this kind of survey. The comparison group response rate was somewhat lower than was hoped due to the quality of contact information available and a higher rate of unwillingness to take the time to be surveyed by the evaluation team.

Table 5. Survey Response Rates

Survey Type	Sample Size	Responses	Response Rate
Beneficiary Producers	541	322	60%
Comparison Group Producers	493	212	43%
Processors	88	64	73%

2.4. Data Analysis Methods

Quantitative data was collected through surveys using the Qualtrics platform, allowing for responses to be directly entered via smartphones or tablets to the platform, through an offline data collection application. In most cases, data was entered by enumerators during face-to-face sessions with respondents. However, for some respondents who could not participate in face-to-face surveys, they were either conducted over the phone or in a few cases sent a link to complete it themselves. Upon completion, survey data was aggregated into Excel spreadsheets for cleaning and analysis. Quantitative analysis was carried out using the following steps:

- **Data Validation and Cleaning:** Responses were first screened to ensure that answers were from the correct respondents identified through the sampling process. Responses were reviewed for completeness (mostly relevant for a small number of responses where the link had been sent to the respondent and the survey had been started but no answers inputted). Finally, the data was cleaned to ensure the removal of errors from the data set and ensure consistency (e.g. spelling of location names).
- **Descriptive Analysis:** An initial cut of the survey data was done to provide a first level of analysis on topics covered in the survey. This included look at descriptive statistics such as mean, median, percentage, and frequency. Data was disaggregated where applicable, by gender,

respondent type, and province. Basic comparisons of province, sex, and producer type distribution, as well as significance tests for difference in mean total land use and average number of cows milked, were used to ensure that the differences between the comparison group and beneficiary group were nominal (See Annex 2 for detailed analysis).

- **Inferential Analysis:** Based on initial insights from the descriptive analysis as well those derived from qualitative analysis and insights from the field work, multivariate analysis on select topics (e.g. milk productivity) was conducted. This included, in some cases, cross-applying survey data with other data, such as that collected over the course of the project and that collected in baseline and midline surveys.

Qualitative analysis was also conducted on data collected through KIIs, FGDs, and desk review. Coding of the KII notes was conducted using Dedoose to identify insights on specific topic areas and to better organize and cross-apply findings. This included codes for location, participant type, questions and response categories. An initial data reduction phase included selecting, focusing, simplifying, abstracting, and transforming the data that appeared in written-up field notes and transcripts. This allowed the evaluation team, using content analysis, to start identifying themes, looking for the most common responses to questions, identifying data and patterns related to the research questions. Triangulation of a data from multiple sources allowed the team to cross-verify findings and fill in gaps.

2.5. Evaluation Limitations

Due to the complexity of different components of the project, the geographical location of its activities, and certain limitations of the evaluation methodology, opportunities for errors and biases exist. This evaluation relies in part on secondary performance information reported in quarterly and annual reports as well as data from the SAFE project's M&E database. The quality of performance data will affect the accuracy of the findings in this evaluation. While the evaluation team believes in the general validity and the reliability of the performance data, it is important to note that issues with the M&E database (discussed above) may have led to potential distortions in some of the data, especially from the first two years of the project. The evaluation team has attempted to mitigate this by triangulating information from multiple sources to inform our findings.

A lack of available project data limited the type and quantity of questions that could be effectively asked during the evaluation. Had the relevant baseline, mid-term, and program level information been gathered, checked, cleaned, meticulously stored from the beginning of the project, and made available to the evaluation team prior to field work, more effective comparisons could be made. Questions like changes in household income, or proxies to measure the same, could have been measured to bolster the perception surveys conducted. A mitigation attempt for this lack of data was made in the form of the comparison group discussed previously.

Prior to the start and during the baseline data collection, there was no control or comparison group. This limited the evaluation team to the option of later constituting a comparison group, made up of producers that shared similar characteristics like total land use, number of cows milked, and province, sex, and producer type distribution with the beneficiary group. This provided useful data point to triangulate findings between the evaluation team's primary data collection, the project's M&E data, data collected by project extensionists, and other secondary data sources. However, in line with the

discussion in the limitations section, the results of this study should not be interpreted as showing causal impact.

As with all forms of data collection, potential for bias exists. Several of the biases most relevant for this evaluation include:

- **Positive response bias:** Certain questions about project outcomes may unintentionally lead to positive response bias where respondents may focus primarily on positive outcomes. This may be exacerbated by the fact that project beneficiaries may feel that positive responses may make assistance in the future more likely. The evaluation team did its best to mitigate this by framing questions in ways which were as objective as possible and cross-referencing responses with data from other sources.
- **Selection bias:** While great care was taken to ensure that survey samples closely reflected the population of project beneficiaries (as outlined under Sampling Methods above), the sampling frame is based only on data which was available on the project beneficiaries. While the evaluation believes this information was sufficient to provide a sample that closely reflected the population (e.g., disaggregation by province, type, herd size), it is possible that other factors that are not measured may have introduced bias into the selection. Because willingness to participate in project activities was a selection criterion for beneficiary farmers, there is a chance for selection bias. Their willingness to participate may have impacted the success of project outcomes. Thus, the difference in outcomes between the project beneficiaries and non-beneficiaries cannot be attributed to project activities.
- **Volunteer bias:** When it is not possible to enforce 100% response rate to the surveys, it is always possible that there is some level of volunteer bias present in the data. This would be the case if there were ways in which those in the sample who chose not to respond were different than the respondents; for example, if those with more negative views of project performance chose not to respond. The evaluation team's comparison of responses with the original samples does not indicate any obvious volunteer bias based on factors included in the sampling methodology, but the possibility cannot be eliminated entirely.
- **Dominant respondent bias:** Primary data collected from beneficiaries, especially when collected in group settings, may reflect the opinions of the most dominant groups without capturing the perceptions of less vocal groups. The evaluation team did its best to mitigate this potential bias in FGDs and group interviews by making sure that all parties understood they were free to express their views, by composing homogenous focus groups, and ensuring that moderators did their best to elicit equal participation.



3. Findings

3. Findings

3.1. Overall Findings

The evaluation team found that the SAFE project made progress towards its two overall objectives of the project improving productivity and expanding trade, but that continued work will be needed to achieve sustainable impact. Directly below we provide a high-level overview of progress towards the two overarching goals of the project, followed by a more in-depth look at the performance of the project related to questions of Relevance, Effectiveness, Efficiency, Impact, and Sustainability:

- 1. Improve agricultural productivity in the livestock (beef and dairy) value chain:** The livestock field schools, technologies, and technical assistance provided at the producer level were demonstrated by SAFE to contribute to substantial productivity improvements. However, the level of technical assistance and accompaniment which the project was able to provide and the results of the activities were less than anticipated due to organizational and design issues in the first two years of the project and the effects of the COVID-19 pandemic in the later years.
- 2. Expand trade of beef and dairy products:** Key milestones towards achieving FSIS equivalence for beef exports to the US are among the most important achievements of the SAFE project. While equivalence has not yet been achieved, this is in large part due to the indefinite postponement of the in-person audit because of the COVID-19 pandemic. There is optimism that the process will continue to move forward and equivalence will be granted, if the right actions are taken.

To monitor progress towards these objectives, the SAFE project tracked indicators related to the project's 12 activities as well as results indicators measuring outcomes of these activities (the 11 results included in the projects results framework). These 89 indicators, as of the time of the final evaluation, had been reduced from an initial 112 indicators originally approved by USDA for the project in 2016, based on recommendations from the baseline study¹². High-level indicators that measured the above objectives focused on changes in productivity through I/c/d and progress towards achieving FSIS equivalence. However, the vast majority of the indicators focused on trainings, assessments, and meetings. Changes in farming practices were measured but only in regard to governance, administration, and financial management.

The SAFE project has a high compliance with the final goals of the project's activity indicators. Of the 40 key activity indicators, 36 (90%) had 100% or greater achievement towards the original goals set by the project. Of the four remaining activity indicators, one shows 87% progress, another 74% progress, and the last two show 21% and 10% progress. In other words, at the time of the evaluation, almost all project activities demonstrated a high level of progress.

¹² The project contains 12 main indicators with 89 sub-indicators. However, these 89 indicators are markedly different and analyze and require separate data collection. These 89 indicators, while reduced from the initial 112, are still a very significant undertaking for monitoring and evaluations. For the purposes of this evaluation, we follow the terms employed by the SAFE project ("activity" and "results" indicator). The number of indicators in each category are also drawn from project documentation.

Table 6. Percentage Progress of Activity Indicators

Achievement	Indicators	% Reaching Level of Achievement
0%	0	0%
1 to 25%	2	5%
25 to 50%	0	0%
50 to 75%	1	2.5%
75 to 99%	1	2.5%
100%	36	90%
Total	40	

For several activities, the project far surpassed the initial targets. Table 7 below presents activities that exceeded the expected targets by up to 200%, with some activities achieving targets of up to 6,000% such as producer productivity training activities (target of 40 and achievement of 2,426) or financial services training sessions that were met in 2,150% (planned 8 sessions and 172 were achieved). Table 7 below presents the activity indicators that made the most progress, where the progress column shows the % progress compared with the original goal and in the last column the normalized progress with a maximum 100% progress allowed.

Table 7. Key Activity Indicator Progress

Num.	Indicator	Project Goal	Progress to date	% Progress towards the Goals	Progress (100% Max Curve)
6.14	Number of people who have received short-term training in agricultural productivity or food security as a result of USDA assistance	13,500	18,227	135%	100%
5.10	Number of training sessions in access to financial services for post-harvest technologies provided to companies	8	172	2,150%	100%
10.05	Number of employees of meat processors trained in healthcare systems and standards	42	368	876%	100%
8.50	Number of USDA-supported events aimed at promoting public-private partnerships to improve the dairy and meat chain at the farm, processor, and exporter level	8	50	625%	100%
8.20	Number of value chain linking meetings held between buyers and sellers in the dairy and beef sector	10	56	560%	100%
6.12	Number of people who have received short-term training (FFPr Indicator 16) (people in firms)	250	1,367	547%	100%
3.30	Number of partners in dairy producer/processor associations trained to establish or improve milk collection centers	320	1,353	423%	100%

6.13	Number of people who have received short-term training (FFPr Indicator 16) (government)	200	704	352%	100%
4.20	Number of meetings on regulatory policy and the regulatory framework for beef for public debate and/or consultation with stakeholders on the new policy or the new revised administrative regulation/procedure	87	228	262%	100%
12.05	Total individuals who benefit directly as a result of USDA assistance (FFPr Indicator 17)	14,406	25,397	215%	100%
10.08	Number of dairy processing facilities audited for SPS compliance	30	64	213%	100%
10.02	Number of employees in charge of processing dairy products trained in health standards	288	611	212%	100%
2.30	Value of grants provided to businesses (POs, dairy processors, and meat processors) to establish or improve an extension system	270,000	558,089	206%	100%
2.20	Number of grants provided to businesses (POs, dairy processors, and meat processors) to establish or improve an extension system	15	31	206%	100%
10.06	Number of milking and milk management training sessions conducted for milk producers	400	804	201%	100%
9.30	Number of public-private partnerships formed as a result of USDA assistance (FFPr Indicator 8)	20	40	200%	100%

There were a few lagging activity indicators. For example, one of the activity indicators with the lowest level of progress was that of "Number of people reached through the public information campaign of the quality seal." The seal of quality activities never fully got off the ground, due to lack of market readiness and political will (see the Effectiveness section below for further discussion). Another activity indicator with showing limited progress was "Number of business plans produced for meat and milk with USDA assistance" where the project planned to reach 3,750 but only reached 791 (21% progress). This was due to delays in the early years of implementation of the project and the COVID-19 pandemic.

Analyzing the project in stages of implementation, considering the periods 2016-2018 and 2019-2021, it can be seen that the project managed to significantly increase the level of progress as reflected by activity indicators. This coincided with project staff changes made in 2018, discussed further under the Efficiency section below. Table 8 clearly shows the acceleration of implementation, reflecting a much higher level of activity progress during the second period, from 175% of unnormalized target progress in the first period to 6,959% in the second period. When indicator target achievement is normalized to 100% maximum per activity indicator, we get a much more useful comparison, showing an improvement in average progress from 63 to 91% in the second period. It is important to clarify that in this table the activities achieved in each period are compared without accumulating in the second period the goals met in the first.

Table 8. Percentage Project Progress by Periods

Period	% of Average Progress	Progress (100% Max Curve)
2016 - 2018	175%	63%
2019 - 2021	6,959%	91%
% Change Between Periods	3,885%	45%

While the level of achievement for the activity indicators was high, the results indicators show more mixed results, due in part to unforeseen circumstances such as recurring droughts and the COVID-19 pandemic. Recurring droughts in 2016 and 2018, were reported in evaluation KIIs as well as previously in the midterm evaluation, as a major challenge for the livestock value chain. In particular, the droughts have had major implications for achieving targeted results related to increasing milk productivity.¹³

The COVID-19 pandemic was another external factor which has had a significant impact on achieving the project's targeted results. The new project leadership (discussed further below under Relevance) made strides to make up for lost time in 2019 and early 2020, including setting up a campaign to increase the number of farms visited in late 2019. However, the arrival of the COVID pandemic in March 2020 brought all field work to a complete stop for three months, and when farm visits were finally allowed to continue it was at a slower pace due to COVID-related restrictions. Additional impact of COVID-19 includes the indefinite postponement of the FSIS audit to confirm equivalence (see Effectiveness below), and a significant slowdown of field activities generally. In addition, the pandemic had direct economic impact on the value chain due to reduced demand for dairy products from the tourism sector. Adaptations such as remote trainings, remote work, and safety measures including masking and social distancing were adopted by the project, as indicated in the key informant interviews.

Table 9 below, shows key indicators tracked by the SAFE project for each of the 11 results under the project's Food for Progress Results Framework. As can be seen in Table 8 below, at the time of this evaluation six of these key indicators had not been met:

- **R1. Percentage increase in the average number of liters produced per cow per day:** This key measure of dairy productivity has a goal of 50% improvement by the end of the project. As will be explained further in the Impact section, milk productivity results were in fact quite positive for producers who received the full package of assistance. However, the limited scale of implementation, as well as potential issues with the original baseline measurement, has kept the project from meeting the original goal to date.
- **R5. Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (Total):** This indicator reached 83% achievement. The goal was not met, due to the inability to meet the goal for the sub-indicator for women (only 20% achievement). The reason for the gender disparity on this specific indicator was not found but may be due to the low relative number of female producers.
- **R5. Percentage increase in volume of grade "A" milk sold to processors by USDA-supported milk collection centers:** This is the key indicator for milk quality. Despite improvements in milk

¹³ J.E. Austin & Associates. "Safe Agriculture/Food Export (SAFE) Project Midterm Evaluation Report," April 30, 2019, p. 61-65.

quality, progress fell short of the 50% improvement target, due to the shortened period of implementation of the livestock field schools as well as a continued need for infrastructure and management improvements at MCCs.

- **R7. Number of dairy farmers using improved milking and milk handling techniques as a result of USDA assistance:** Project delays in the first two years as well as the impact of the pandemic led to slower uptake in milking and milk handling techniques, resulting in only 58% achievement.
- **R9. Number of new markets to which beef is exported:** This is the key result indicator for equivalence, with a goal of 1 (Puerto Rico). It remains at 0% achievement until equivalence is obtained, although it should be noted that the project did provide technical assistance to a meat processor that began exporting to Guatemala.
- **R10. Number of agreements signed (Contracts, MOUs, etc.) between beef or dairy exporters and buyers in the US as a result of USDA assistance:** This indicator in large part relies on the previous indicator and the achievement of equivalence. The goal is 14 and achievement remains at 0% until equivalence can be achieved.

Table 9. Key Results Indicator Progress¹⁴

Indicator	Project Goal	Progress to Date	% Progress Towards Goals	Progress (100% max)
Result 1: Increased Agricultural Productivity				
Percentage increase in the average number of liters produced per cow per day	50	12	24%	24%
Total number of individuals benefitting directly as a result of USDA Assistance (FFPr Indicator 17)	14,430	25,397	176%	100%
Result 2: Private Sector Contribution				
Number of private sector institutions that are providing monetary or in-kind resources in support of agriculture productivity (e.g., in areas including research, market information, agricultural inputs, etc.) as a result of USDA assistance	60	60	100%	100%
Value of private sector investment/resources supporting agriculture research/extension that is consistent with government priorities as a result of USDA assistance	\$712,320	\$3,219,735	452%	100%
Result 3: Policies				
Number of policies, regulations and/or administrative procedures in each of the following stages of development as a result of USDA assistance (Stage 5) (FFPr indicator 12)	6	11	183%	100%

¹⁴ The complete table of results and activity indicators can be found in Annex 1.

Result 4: Improved Capacity of Key Groups in the Agriculture Production Sector (coops and smallholder farmers)				
Volume of milk supplied (million liters) by farmers to USDA supported milk collection centers	80	226	283%	100%
Result 5: Increased Use of Improved Agricultural Techniques and Technologies				
Number of farmers in the dairy and/or beef sector making farm decisions based on economic considerations or analysis as a result of USDA assistance	3,690	11,150	302%	100%
Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (Total)	11,875	9,856	83%	83%
Number of hectares under improved techniques or technologies as a result of USDA assistance. (FFPr Indicator 1) (Total)	4,802	12,726	265%	100%
Number of private enterprises, producer's organizations, water user's associations, women's groups, trade and business associations, and community-based organizations (CBOs) that applied improved techniques and technologies as a result of USDA Assistance (FFPr Indicator 7) (Total)	54	172	319%	100%
Percentage increase in volume of grade "A" milk sold to processors by USDA supported milk collection centers	100	36	36%	72%
Result 6: Improved Capacity of Key Organizations in the Trade Sector (processing organizations and trade associations)				
Number of beef Regulatory Policy and Regulatory Framework meetings for public debate and/or consultation with stakeholders on the proposed new or revised policy/regulation/administrative procedure	87	228	262%	100%
Result 7: Increased Use of Improved Post-Production Processing and Handling Practices				
Number of dairy farmers using improved milking and milk handling techniques as a result of USDA assistance	7,000	4033	58%	58%
Result 8: Improved post-harvest infrastructure				
Number of milk collection centers with USDA support using improved equipment to collect and chill milk	50	60	120%	100%
Result 9: Increased Access to Markets to Sell Agricultural Products				
Number of new markets to which beef is exported	1	0	0%	0%
Result 10: Improved Linkages between Buyers and Sellers				
Number of agreements signed (Contracts, MOUs, etc.) between beef or dairy exporters and buyers in the US because of USDA assistance	14	0	0%	0%

Result 11: Increased Use of Financial Services

Number of firms who are accessing credit through formal financial products as a result of USDA assistance	40	131	328%	100%
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The following sections cover in detail the findings of the evaluation team regarding the relevance of the SAFE project's design, effectiveness of its activities, the efficiency with which its interventions were implemented, the impact which the project has had so far, and the sustainability of these impacts and their legacy.

3.2. Relevance

A. Alignment with Sector/Value Chain Needs

It is clear from this evaluation that the SAFE project provided a comprehensive program design and that its activities were relevant to the needs of the livestock sector (dairy and beef). Specifically, the project addressed major value chain challenges including low productivity, inconsistent milk quality, low access to extension services, and health and sanitary issues.

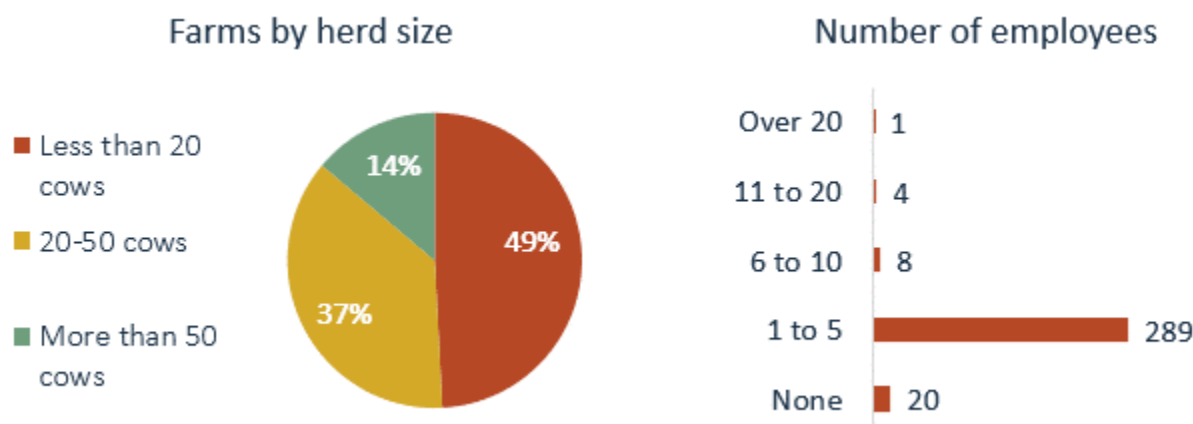
This view is widely evidenced by the positive perceptions of the project by a majority of the beneficiaries with whom the evaluation team spoke. KIs with Producer Organizations showed overwhelming positive feedback on the project, with several specifically pointing out how the SAFE project has been one of the first projects in the Dominican Republic to work directly with producers. A key activity which met a need previously largely unmet, were the livestock field schools and associated technical assistance to producers. 78% of the beneficiary producers we surveyed reported the livestock field school methodology as being beneficial to them. MCCs and *queserías* also reported overall satisfaction with the technical assistance they received with 79% reporting that they received high quality services from the project.

However, project design also posed some challenges to project implementation and goal achievement. The first major challenge was that despite the breadth of the project's scope with its whole-of-value chain approach, activities were not buyer-driven nor were design and implementation characterized by multi-stakeholder participation, to the extent which would be expected from a value chain project. Additionally, there was no foundational value chain assessment conducted at the early stages of the project, something that is typically a component of Food for Progress projects according to USDA stakeholders interviewed. SAFE project staff with whom we spoke also felt that an in-depth value chain analysis should have been done during the design stage of the project which would have helped clarify the value chain strategy to be used to achieve the goals of the project – to improve productivity and expand trade. Some measures were taken by the second project team in 2018-2019 to remedy some of these design issues, but by that point a significant amount of time had passed (see Efficiency section).

A second challenge with the project design is lack of clarity of beneficiary focus: an explicit decision was not taken about whether to target smaller producers with the most to gain in terms of productivity but with little potential to export, versus large and medium-sized producers with real export potential. In the end, at the producer level the project ended up focusing primarily on small farms (86% with less 50 cows or fewer, see Figure 11 below) based on the logic that they offered the largest gains to be made in terms of improving milk productivity and quality. The focus on small farms, many of which were described as

“subsistence” level farms, was critiqued by some agricultural experts involved in the project as being less effective than if the focus had been placed more on medium-sized farms. According to project staff, some opportunities were identified to have medium and large farmers serve as examples for smaller farmers. Indeed, this is an example of a viable strategy, that could have potential if it were explicitly articulated and consistently implemented.

Figure 11. Beneficiary Producers Tended to be Small-Scale Farmers with Few Employees (Survey)



A final design challenge was geographic scope, which covered 11 provinces all over the country. An unclear logic behind breadth and focus of provinces chosen for project intervention, which led to unequal results and inconsistent delivery across provinces. Some project staff as well as others with whom we spoke believed project interventions should have been focused on fewer specific provinces where a proof of concept could have been more thoroughly developed and then expanded to the rest of the country. Additionally, once the 11 provinces were selected, some interviewees noted that there was little flexibility. For example, one of the leading *queserías* in the country asked if the project could include some of the producers that supplied him in the technical assistance activities. These farms were located just across the provincial border in a province not included in the province design. The business owner claims the request was denied because the two farms were not in the intervention area.

B. Alignment with Government Priorities and Strategy

Project activities were clearly in line with government priorities, especially regarding achieving FSIS equivalence for beef exports to the US. This so far seems to have remained a priority with the ascension of the new government in August 2020. The new government also has emphasized increased attention to producers and improving milk productivity, which is in line with the SAFE project’s activities.

A key challenge early in the project was the failure to anchor program interventions upon an initial agreement with public sector and private sector stakeholders on key goals and aspects of measurement. A number of key government stakeholders we spoke with failed to appreciate the project, in part because they had a poor understanding of its activities and seemingly had not been involved with goal setting.

C. Relevance: Conclusions

- **EQ1.1 To what extent has the project responded to the actual needs and interests of the target farmers, associations, groups, and other stakeholders?**

The SAFE project's comprehensive design responds to the needs of value chain stakeholders, especially at the producer level, though project design should have included more multi-stakeholder participation in goal setting and definition of the scope.

- **EQ1.2 To what extent does the project integrate or strengthen the national sectoral strategy to improve production and market access?**

The SAFE project strengthened the national sectoral strategy for US market access, especially regarding the equivalence process, by skillfully moving the process forward, effectively maneuvering through long-standing obstacles (more on this in the section below).

- **EQ1.3 To what extent does the project fit into the strategies of the DR government?**

SAFE project activities align with government priorities regarding the equivalence process and improvements in dairy productivity. However, the government changed during the implementation of the project with President Abinader coming to power in August 2020. Efforts should be made to ensure the new government's buy-in if sustainability is to be achieved.

- **EQ1.4 What was the added value of the project considering perspectives from key stakeholders such as USDA Washington USDA DR, POs, and implementing partners?**

SAFE project activities align with USDA/USG development goals, objectives, and strategies. POs were very positive about the project's activities, on the whole, especially noting that it was the rare project to work substantially with producers. Government stakeholders and implementing partners had more mixed opinions, but generally considered the SAFE project to have provided quality technical expertise and positive impact.

3.3. Effectiveness

A. Overview of Project Effectiveness and Adaptation

In terms of implementing project activities, the SAFE project showed high effectiveness, with 90% of key activity indicators reaching 100% or greater achievement towards the original goals set by the project. However, achievement of the desired outcomes of the project have made slower progress, with only 68% of results indicators reaching 100% or greater achievement towards the original goals set by the project.

While the SAFE project got off to a slow start, without the COVID-19 pandemic the extent of the project's achievements would likely have been much greater in scale and scope. The lost social capital and credibility due to the initial years of struggling within the SAFE project limited what could be achieved by the second highly qualified and motivated team. Rebuilding credibility with the local community while working within local cultural norms that lean towards non-confrontational problem solving meant longer periods of required problem-solving efforts by the project team. This was mentioned in the KIIs with project staff and confirmed by the leader of the Dominican data collection team. However, the new leadership team hired in 2018 achieved rapid progress up until the start of the

COVID-19 pandemic (see the section on Efficiency below for further details). An audit to determine FSIS certification was scheduled for March 2020, but then delayed indefinitely as the pandemic lockdowns began. Lockdowns also slowed the progress being made in the field with extensionist farm visits and provision of technical assistance. Beyond the effects on the project itself, COVID-19 also had severe impact on the value chain as a whole with government budgets for supporting producers reduced, financial institution lending temporarily curtailed, and a drop in demand in dairy products due to the impact of the pandemic on the tourism sector, as indicated by key informant interviews.

B. FSIS Equivalence

Perhaps the most important objective of the SAFE project in the eyes of the DR government and many other stakeholders, was the second strategic objective of the project to expand exports of beef, through achieving equivalence with US food safety regulations under USDA's Food Safety and Inspection Service (FSIS). The equivalence process ensures that a country's food safety inspection and certain non-food safety requirements are equivalent with those of the US as a prerequisite for exports.

While the project has not yet met the two related results indicators for equivalence ("Number of new markets to which beef is exported" and "Number of agreements signed (Contracts, MOUs, etc.) between beef or dairy exporters and buyers in the US as a result of USDA assistance"), substantial progress has been made and it is likely that equivalence is imminent as long as the new government of DR continues to maintain support for the process.

The SAFE project has facilitated frequent meetings with the relevant government and private sector entities involved in equivalence since the inception of the project. This includes primarily DIGEMAPS and DIGEGA, public and private laboratories, as well as participating slaughterhouses, MERCARNE and AGROCARNE. Technical assistance to strengthen the beef inspection system and compliance with standards was also provided by the project, in large part through TAMU staff, to the slaughterhouses and initially also to the government-controlled laboratory, LAVECEN (*Laboratorio Veterinario Central*), which had been identified early in the project to do microbiology and chemical residue testing.

ASOCARNE President Enrique de Castro and Professor Greg Sullivan of Texas A&M University (TAMU) were also engaged by the project to conduct a Puerto Rican Beef Market Study in 2018, which identified a comparative advantage for beef exports from the DR, in the form of "manufactured trimmings" which don't compete with high quality cuts produced in the US and can be shipped cheaply by ferry.¹⁵ The main competitor for beef exports from the DR are those from Central America, but DR has a comparative advantage in price and shipping time, with shipping to Puerto Rico taking only 1-2 days and \$0.05/kg of beef from DR as opposed to 11 days and \$0.11/kg from Central America. Because DR beef can be shipped fresh and chilled it is preferred by meat processors of hamburger patties for the fast-food industry over that from Central America which is typically frozen.¹⁶

Early in the project it became clear that LAVECEN was unprepared institutionally and technically to work on Equivalence. An original plan for LAVECEN to be administered by *Organismo Internacional Regional de Sanidad Agropecuaria* (OIRSA), did not work in part because some of the government officials who controlled the lab were resistant to change and outside assistance (there is now new leadership at

¹⁵ SAFE Project. "Performance Report Summary – April 1st, 2018 – September 30, 2018," November 15, 2018.

¹⁶ Enrique de Castro and Gregory M. Sullivan. "Market Analysis Report of Dominican Republic Beef in Puerto Rico," TAMU Borlaug Institute, June 2018.

LAVECEN). In 2018, the SAFE project determined it would be best to find an alternative to LAVECEN rather than jeopardizing the progress towards meeting standards for equivalence.

In consultation with government stakeholders and FSIS a workaround solution was identified when it was discovered that there was no requirement for the laboratories to be government-operated in order to obtain equivalence. In October 2018, three alternative labs were identified and selected to undertake microbiological and chemical residue testing: *Instituto de Innovación e Biotecnología Industrial* (IIBI) and the *Laboratorio Agroempresarial Dominicano* (LAD) in the DR, and the *Laboratorio Nacional de Resíduos* (LANAR) located in Tegucigalpa, Honduras and administered by OIRSA. Under the new arrangement, LAVECEN's role is now limited to forwarding samples to LANAR in Honduras through OIRSA, circumventing the initial impasse and allowing the equivalence process to move forward. An agreement was project was made with the Ministry of Agriculture and OIRSA to split the cost of the chemical residue testing in Honduras, while the SAFE project covered 50% of the costs of microbiological tests done in DR at IIBI and LAD. A deal was made with COPA airlines to transport the samples, which was key for providing the cold chain transport necessary for preserving the samples at the right temperatures. Continued support from the SAFE project to LAD and DIGEMAPS to acquire specialty lab equipment, in the first quarter of 2021, has led to the beginnings of a local chemical residue testing program which should eventually reduce reliance on LANAR in Honduras.

By early 2020, the equivalence process had advanced to the point that participating slaughterhouses were deemed ready for the USDA/FSIS on-site official audit. A mock-audit on the Beef Inspection System, extensive to the laboratories and the slaughterhouses' components was conducted by experts from TAMU, focusing on documentation, operations, and verifications. In addition, SAFE provided support to DIGEMAPS to automate the process of documenting inspections. They concluded that all components of the system were ready for the FSIS audit.¹⁷ A rapid action plan was established, and an audit date of March 2020 was set. However, the outbreak of the COVID-19 pandemic in mid-March 2020 led to the indefinite postponement of the audit. The experts from TAMU with whom we spoke were confident that had the audit occurred, equivalence would have been achieved thanks to assistance from USDA through the SAFE project. This viewpoint was widely supported by other project staff, partner staff, and government stakeholders interviewed. Other value chain stakeholders who were informed on the subject, were confident that equivalence would continue to move forward as long as the new government of DR continues to keep it a priority, which has been the case so far.

C. Strengthened HACCP Systems and Private Investments in Slaughterhouses

A key achievement of the project, regardless of the final achievement of equivalence, has been extensive SPS (Sanitation Performance Standards) improvements in participating slaughterhouses. Technical assistance provided through a critical path route developed by TAMU staff, started in April 2018, to strengthen the Hazard Analysis and Critical Control Points (HACCP) systems of the three slaughterhouses participating on the Equivalence process has significantly improved the quality of sanitary practices and established new norms, a trend that stakeholders believe will be lasting.

¹⁷ SAFE Project. "Performance Report Summary: October 1, 2019-March 30, 2020," April 2020.

During the COVID-19 pandemic, the SAFE project adjusted its technical assistance to equivalence actors through collective efficiency schools (CES - a further adaptation of the farmer and livestock field school methodology) to a virtual format with 517 participants, including managers and staff of slaughterhouses and inspectors from DIGEMAPS. Key topics covered included HACCP, humane livestock practices, and sanitary measures and procedures.¹⁸ In addition to providing technical assistance, the SAFE project offered matching grants to beef processors to increase SPS-related processing infrastructure as well as financing to government stakeholders and laboratories for equipment. The SAFE team also facilitated an agreement between the DR government and the private sector to share the costs of required laboratory testing during the equivalence process. The private sector co-investments in particular have been key in ensuring buy-in for new norms and practices.

Figure 12. Team Leader Lara Goldmark Speaking with Eduardo Alvarez at MERCARNE



D. Livestock Field Schools

The livestock field school methodology – a methodology developed by the Food & Agriculture Organization (FAO) and adapted to the Dominican context¹⁹ – implemented by project staff, a core group of MEGALECHE's, and trained private extensionists using an 80% hands-on and 20% theory approach has been a major achievement in the eyes of producers, POs, and project and partner staff. The methodology combines hands-on technical assistance in a peer learning format with training on farm management and other subjects, complimented by the *programa de coinversión productivo* (PCP) provided through the SAFE project's grants program. The PCP, as reported in the midterm evaluation, included an input package of pasture seeds, fertilizers, jerrycans, *Empresa Brasileira de Pesquisa Agropecuária* (EMBRAPA) designed kits (a Brazilian-designed unit used to clean teats and improve hygiene during milking), and other inputs with a total value of US\$500-700 per producer.²⁰ Selected farms were used as demonstration farms where practices could be shown in action.

Figure 13. Feeding Cattle at a Farm in Hato Mayor



While there was some initial resistance from cooperatives and producers about trying an approach different than their previous experience, the livestock field schools began to generate enthusiasm as they were implemented. Producers and POs interviewed widely lauded the livestock field schools for equipping producers with improved practices and farm management skills, directly leading to substantial improvements in productivity and milk quality. Of producers surveyed, 78% said the livestock field schools were beneficial for

¹⁸ SAFE Project. "Main milestones of the equivalence process: Period March - September 2020," November 12, 2020.

¹⁹ FAO. "Livestock and Farmer Field Schools," Accessed May 2021. <http://www.fao.org/farmer-field-schools/ffs-overview/livestock/en/>

²⁰ J.E. Austin & Associates. "Safe Agriculture/Food Export (SAFE) Project Midterm Evaluation Report," April 30, 2019, p. 33.

them, a finding supported by our producer FGDs which reported particular satisfaction with the hands-on approach and accompaniment from extensionists through repeated farm visits as producers began to implement what they had learned. We also received overwhelming positive feedback from the POs, although financing of the private extensionists beyond the length of the project may be a challenge per KIIs with project stakeholders.

Unfortunately, the livestock field schools -- like many of the project's activities -- only began in mid-2018. During the first two years of the project, producer-level technical assistance was delivered by government extensionists from MEGALECHE in classroom-type environments and sessions based at select lead farms. As reported by the midterm evaluation, there were many complaints about MEGALECHE's performance including lack of resources and lack of "motivation." MEGALECHE had only 50 agents for the whole country and we were also told by project staff that MEGALECHE had a requirement of only 50 farm visits per month, though amendments to the MEGALECHE agreements were added, which provided more support for extensionist visits. There were also reported cases of technical assistance being done over phone instead of in person and even claims of forged signatures on training reports.²¹ Whatever the truth of the claims may be, the fact was clear by early 2018 that the MEGALECHE technical assistance was ineffective in its current form. The SAFE project's renegotiated agreements with DIGEGA aimed to fix this and included incentive-based reimbursement of expenses for MEGALECHE extensionists who continued to work with the project through the second phase. It is important to note that those MEGALECHE extensionists who continued with the project, became valuable contributors.

The livestock field school methodology was spearheaded by the new project team and began implementation on July 22, 2018. This practical approach to technical assistance delivery was further enhanced by the introduction of private extensionists in mid 2019 (for the first time ever in DR, according to some POs we spoke with). The SAFE project reached an agreement with the POs involved to share the burden of the cost for the private extensionists, where the program would cover 80% and the PO would cover 20%. The idea was to evolve the proportion covered by each party over time, getting eventually to 50/50, however due to COVID-19 this did not happen.²² The cost aspect of the private extensionists is something that must be addressed for the livestock field school methodology to remain sustainable after the project is complete. Some stakeholders in POs pointed out that this is a task made more difficult due to the fact that MEGALECHE extensionists provide free services in theory, so producers and POs sometimes have trouble seeing the value of paying for private extension services. However, even government stakeholders we spoke to were positive about the introduction of private extensionists, and we heard that the private extensionists and MEGALECHE extensionists had even come to unspoken agreements about how to divide up areas of need, so there seems like there could be some political will to come to a solution. MEGALECHE has also expressed interest in adopting the livestock field school methodology among their extensionists on a country wide basis.

E. Seal of Quality

In addition to the technical assistance activities aimed at improving the quality of milk, the SAFE project's effort to promote the Seal of Quality (SoQ) in the DR was designed to create an incentive for consumers to pay a premium for higher quality milk. Training was provided by the project through

²¹J.E. Austin & Associates. "Safe Agriculture/Food Export (SAFE) Project Midterm Evaluation Report," April 30, 2019, p. 33.

²² There was originally an even more ambitious goal to develop business plans that utilized the revenues from increased milk production and quality to finance 100% of the cost of the extension system by the time the project funded grants expired. This did not go anywhere.

INDOCAL to milk processors to inform them of the requirements for obtaining the Seal of Quality for their products and some initial public information campaigns were conducted at the beginning of the project through trade fairs, with an additional campaign planned for the end of the project.

However, these efforts have very little success since the activities hardly got off the ground due to the market being unready. Project and partner staff with whom we spoke said that the Seal of Quality was given too much importance in the project design, despite a lack of political will (outside of some individuals at INDOCAL) and a dairy market which is not yet ready for it, with a high level of informality among milk processors (60% are informal, rarely comply with food safety standards, and can't qualify for Seal of Quality), and little willingness in the market to pay a quality premium, outside of bigger wholesale buyers like Nestle. While goals related to training have been met (the activity indicator "Number of value chain actors participating in the Seal of Quality" reached 113% completion), few people have been reached through the public information campaigns so far ("Number of people reached through the Seal of Quality public information campaign" was only 10.5% achieved as the writing of this report) and no products are yet using the Seal of Quality ("Number of products using the Seal of Quality in their marketing" had a goal of 25 and has 0% achievement).

F. Grants program and access to finance

The SAFE project's grants program cut across multiple project activities and provided funding for private extensionists, trainings, infrastructure, and agricultural inputs. Funding for the grants came in part from direct USDA funds and in part through cost sharing. The total value of the 119 grants is worth US\$2,073,497 after participant counterpart with actual project expenditures through April 16, 2021 at US\$1,241,637. Table 10 shows the breakdown of grants by the following activity types:

- Extension Systems
- Establish or Improve MCCs
- SPS For Meat Processors
- PCP
- Analysis
- Flexible Funds
- Milking Parlors

These grants are further divided under the following subtypes (some grants are applicable across multiple activities and subtypes):

- Extensionist training
- Agricultural inputs
- Private extensionists
- Technology application
- Equipment to cool and collect milk
- Physical infrastructure
- PDI and MCC sanitation
- Computers and systems
- Meat analysis
- Milk analysis

Table 10. Summary of SAFE Project Grants by Type and Calendar Year²³

Grant Type	Grants given	Grants - Total Value by Type					TOTAL VALUE
		2017	2018	2019	2020	2021	
Extension Systems	28	\$8,138	\$117,275	\$375,629	\$142,172	\$2,838	\$646,053
Establish or Improve MCCs	41	-	\$322,987	\$68,345	\$30,772		\$422,104
SPS For Meat Processors	5	-	\$48,552	\$99,225	-		\$147,778
PCP	20	-	\$197,150	\$237,814	\$24,728	\$5,486	\$465,178
Analysis	6	-	-	\$30,870	\$12,108	\$20,333	\$63,312
Flexible Funds	1	-	-	\$48,034	\$-		\$48,034
Milking Parlors	18	-	-	\$30,396	\$399,214	\$30,551	\$460,161
TOTAL	119	\$8,138	\$685,964	\$890,315	\$439,872	\$49,208	\$2,252,620

The grants program provided matching grants and financing for key inputs, services, and infrastructure vital to the SAFE project's activities. Some of these grants are discussed under specific activities with which they are associated (e.g., private extensionists, co-investments at slaughterhouses). Grants also supported technical assistance from international and domestic experts in areas including SPS and genetics – including services provided by TAMU and GENEX. The work done by the SAFE project to support genetics and reproductive health for livestock was new in the D.R. and according to experts with whom we spoke, has a high potential for improving the productivity and quality of production.

Grants were widely perceived to be useful, however, there were concerns from project staff and value chain stakeholders alike about the application of certain grants and the mechanism for their distribution. For instance, a common concern, especially among producers, was a perception of a lack of transparency in the criteria for allocating farm-level grants (discussed further under Efficiency).

²³ Some grants were approved in one year but payment occurred over multiple disbursements, which may lead to different reporting in different sources. CLUSA's financial reports differed from the technical semiannual performance reports to USDA as they only included disbursements but did not accrue the entire value of the approved grants. Some awarded grants were distributed across more than 1 activity because they addressed multiple purposes.

Among the most visible use of grants were the 300+ milking parlors built with project financing for producers (205 were built through the SAFE project's grant funds starting in 2019/2020, the rest were built prior to 2019/2020 fiscal year funded by JAD). The milking parlors, if used correctly, provide a dignified and sanitary place for producers to milk their cows, increasing the quality of the milk produced. Many of the producers and POs we spoke with were very pleased with the milking parlors and they are a visible legacy of the project's work. However, in some cases the impact appears to be mixed, with some producers not even using them (12% according to the milking parlor survey carried out by the project in 2019).²⁴ This highlights the importance of ensuring that stakeholders who receive project money have skin in the game when it comes to investments in infrastructure improvements and other items being financed by the project. While the milk parlors certainly had positive impact, it was noted by multiple project staff that milk parlors are a relatively expensive investment (about \$2,000 each), and perhaps equal or greater impact could have been had by redirecting these funds towards financing inputs for producers (only \$500-\$700 per producer).

Figure 14. Milking Parlor in Puerto Plata Funded by SAFE



While the grants program served an important purpose in providing financing for specific items related to project activities, the larger need is to address access to finance throughout the value chain. This is an area where both producers and processors we spoke were less satisfied compared to other SAFE project activities. Only 41% of producers and 63% of processors we surveyed said they had access to finance after participation in project activities. Unfortunately, baseline figures for access to finance were not gathered at the beginning of the project, however the findings from the midterm evaluation also confirmed that access to finance was rated as “poor” by respondents.²⁵

Despite a relatively strong financial system in the DR as a whole, the livestock sector lags significantly in access to finance. The sector is categorized under Agriculture, Livestock, Hunting and Forestry, which represented 6% of GDP in 2020, but only received 1.95% of the total loans granted in the country. The DR government has several public policies aimed at alleviating this funding gap, including programs such as the Special Fund for Agricultural Development (FEDA) which lends to producer associations to make investments in the sector to improve their productivity. FEDA has an annual budget for credit of RD\$ 1 billion or US\$ 17.2 million. In addition to FEDA, second-floor banking operates through the *Reservas del País Foundation*, which finances cooperatives and microfinance institutions and has assets of approximately RD\$ 3 billion or US\$ 51 million, with an estimated 10% aimed at the agricultural sector. There is also the *Banco Agrícola*, which in 2020 gave loans to the livestock sector totaling RD\$ 2,479 million or US\$42 million serving 2,153 producers in that year. There are also private lenders, such as ADOPEM and ADEMI, which are active in sector and based on our KIIs would like to lend even more at the producer level.

²⁴ Mildred Costes. “Consultoria Para Evaluar: Salas de Ordeño PROGANA,” SAFE project, March 24 2019.

²⁵ J.E. Austin & Associates. “Safe Agriculture/Food Export (SAFE) Project Midterm Evaluation Report,” April 30, 2019, p. 53 & 55.

Project delays in the first two years and COVID-19 pandemic delayed activities related to financial inclusion – as with other activities – and while some real progress was made, the project activities in this area were not well-designed. Financial access at the producer level is plagued by challenges with poor credit, exacerbated by the fact that loans to public lenders are most often not repaid. This and other systemic issues were not well addressed in the project design. Project staff KIIs indicated that management of loans to producers was ill-defined and loans tended to be large amounts, but only distributed to a relatively small number of producers. Additionally, the process for determining loan allocation was poorly defined and often very bureaucratic, with producers not receiving the money from financial institutions for an extended period after being extended the loan. The project did hire a consultant to work on access to finance mid-way through the project who had the right ideas to work with POs to create financial products that addressed some of these challenges. However, they were not fully implemented in part due to time constraints of the project at this point and also due to a lack of cooperation from government counterparts.

G. Effectiveness: Conclusions

- **EQ2.1 To what extent have the expected results of the project been achieved?**

Results achievement has been lower than expected, in part due to project delays and COVID-19. For key results indicators, 68% have been achieved.

- **EQ2.2 What factors have been critical to the achievement or nonachievement of project objectives?**

Critical factors to the non-achievement of select indicators can largely be categorized into three groups. The first were the organizational challenges experienced by the project leading to slow progress over the first two years of the project (explored further in the Efficiency section). The second factor was recurring droughts in 2016 and 2018 that set back progress in increasing milk productivity. To mitigate this, the project worked with the *Fundación REDDOM* (Rural Economic Development *Dominicana*) to implement drought adaptation strategies and address adaptation barriers including one virtual workshop via video conference, three workshops in San Juan (in Las Matas de Farfán, in Barranca and Yabonico), four workshops in Santiago Rodriguez and five workshops in Dajabón. Additionally, technical assistance was provided to fifteen farms where producers showed willingness to implement recommended practices, techniques or technologies with five farms are in San Juan, six in Santiago Rodriguez and five in Dajabón.²⁶ The third factor was the COVID-19 pandemic, which indefinitely delayed the FSIS audit to confirm equivalence, significantly slowed down project activities in the field, and affected value chain actors by decreasing prices significantly due to reduced demand from the tourism sector. Despite these negative factors, the new leadership team installed in 2018 was a major positive factor and led directly to the achievements the SAFE project was able to make despite the challenges, especially in three areas: moving forward the equivalence process to the audit stage, implementing the livestock field school methodology, and introducing private extensionists.

²⁶ Fundación REDDOM (Rural Economic Development Dominicana) for Fortaleciendo la Cadena de Valor de la Ganadería Dominicana (PROGANA). “Consultoría Medidas de adaptación a sequía para productores Lácteos beneficiarios de PROGANA,” SAFE project, December 2020, p.2 &3

- **EQ2.3 Has the project led the planned activities? Has it achieved the expected results?**

The SAFE project has been effective at carrying out the activities of the project, with 90% achievement for key activity indicators. Goal achievement for results indicators is at two-thirds with 68%, though key indicators related to equivalence, milk productivity, and milk quality have fallen short of original goals.

- **EQ2.4 What adaptations, if any, were made to the project's implementation process in order to achieve project objectives and targets based on mid-term evaluation findings?**

The SAFE project for the most part responded effectively to the midterm evaluation's recommendations, as follows:

1) Resolve problems and inconsistencies in the PROGIS M&E database: An audit of the M&E data was carried out, and inconsistencies addressed as best as possible retroactively. A new SharePoint database was built to house M&E data.

2) Adopt a value chain-wide approach to dairy quality upgrades: the mid-term evaluation did not sufficiently define what was meant by a "value chain-wide" approach, although we imagine that if specific recommendations had been developed they would have been similar to the recommendations we also make in this report, i.e., conducting a value chain analysis and using the associated quantitative data as part of the project's M&E system, investing in increased stakeholder consultation and participation to develop broad buy-in for a common sector vision, designing buyer-driven activities, and targeting specific points of leverage in the value chain for interventions. Specific activities focused on improving milk quality increased and progress was made on milk quality indicators. However, little progress was made on the Seal of Quality.

3) Advocate for inspection services and slaughterhouses to progress on the 'critical path' routes toward conformity with the FSIS standards: This was absolutely done. Great progress was made at participating slaughterhouses, and prior to COVID-19 related delays, the FSIS audit was scheduled, and it was considered likely by TAMU experts that the slaughterhouses were sufficiently prepared to pass the audit.

4) Audit project marketing and branding strategies to better inform the public that USDA is the project donor: Based on the project documentation we have seen and held discussions with project staff, it appears the concerns were addressed, with more prominent use of USDA marketing on SAFE project materials and activities.

- **EQ2.5 To what extent the activity changes after midterm evaluation results and recommendations were successful in improving effectiveness and ability of the project to achieve its expected results?**

While the late implementation of the midterm evaluation left a short time to put changes in place, the M&E audit and the acceleration of activities related to milk quality and slaughterhouse improvements represented substantial progress. There were other, iterative adaptations throughout the life of the project, including updates to performance indicators, budget and scope modifications to allow for staffing and role changes. On May 8, 2020, SAFE was awarded a no-cost extension through March 31, 2021 due to delays in monetization sales

and budget execution, followed by a costed extension awarded September 25, 2020 that modified the Period of Performance to December 31 2021 and to recognize the impact of Covid-19. As is traditional practice, these modifications were managed in-house, and not socialized with external stakeholders (i.e., to match the development and/or updating of a clearly articulated value chain strategy.) At the same time, there was high-quality work to update value chain strategies (especially beef, where the SAFE project worked with the Ministry of Agriculture to develop a “5 Axes Initiative for Livestock”). One challenging, but important, aspect of managing US-government funded projects is the management of inevitable changes (in scope, scale, or timing of projects) in the technical versus administrative domains. It is a fact that external stakeholders often point to the total budgetary amounts devoted to these programs and do not understand “where the money goes.”²⁷ While regular meetings were held with stakeholders during the last two years of the project, management challenges earlier on had already caused gaps in communication. A detailed set of recommendations about this issue goes beyond the scope of this evaluation; however, perhaps a useful starting place is the alignment, externally and internally, between (1) results frameworks, performance indicators, and activities, (2) stakeholder dialogue and joint activities that specifically refers to these indicators and tracks whether they link to results, and (3) an overarching “neutral” framework, such as the value chain map or other, that all actors can use to “hang” their analysis, track progress, highlight and disseminate their own activities, etc.

- **EQ2.6 What were the planned and unplanned outcomes that can be attributed to the project?**

Planned outcomes included improvements in milk productivity and quality as described above (as measured by liters-per-cow-per-day and volume of Grade A milk), as well as the completion of milestones towards the achievement of FSIS equivalence. Unplanned outcomes, due to the COVID-19 pandemic included positive opportunities for greater participation from slaughterhouse management due to remote trainings.

- **EQ2.7 What are the evolutions of the project indicators?**

The SAFE project, as of the time of this evaluation, tracked 89 indicators. This was reduced from an initial 112 indicators originally approved by USDA for the project in 2016, based on the baseline recommendations and approved by USDA on August 4, 2017. Additional indicators were modified or corrected due to persistent errors on October 18, 2018.

- **EQ2.8 Has the implementation process (approach - methodology) been effective?**

The project has been effective in carrying out the planned activities as per the program design, however problems with the initial design (see Relevance section) as well as management challenges in the early years that affected delivery of project activities (see Efficiency section) combined with external variables (droughts and COVID-19) prevented the project from achieving the desired results.

²⁷ See, for example the front-page story in the New York Times on Sunday June 6, 2021 referring to ‘the Contractor Problem,’ in a critical article about US efforts to fund economic development in Central America in order to reduce migration. “Billions in Aid, but the Migrants Keep Coming,” By Natalie Kitroeff and Michael D. Shear.

- **EQ2.9 What is the evidence and estimate by how much agricultural productivity and the marketing of agricultural products have been improved through project actions?**

Productivity has improved substantially for those producers who implemented techniques and technologies provided through the livestock field schools and associated technical assistance (see the Impact section). Marketing of agricultural products through the Seal of Quality has not occurred.

- **EQ2.10 To what extent did the Livestock Farmer Field School methodology contribute to improved agrobusiness management, production and quality compared to traditional adult education methodologies?**

The livestock field school methodology was very popular with producers and POs alike, despite some initial reticence prior to adoption. The hands-on methodology based on peer learning, along with accompaniment from extensionists through follow-up visits, was the key to the project's impact at the producer level.

- **EQ2.11 To what extent did project activities prepare stakeholders to participate in virtual activities versus in-person as a result of the global pandemic from the novel coronavirus COVID-19?**

While some activities such as trainings were able to be conducted remotely, the pandemic had a negative impact on the project's ability to deliver on many activities. The indefinite delay of the FSIS audit for equivalence is a key example, as was the impact of the pandemic on the livestock field schools and farm visits by extensionists. One unforeseen benefit of virtual workshops was that owners and top managers of the slaughterhouses took part in the sessions, which was not always possible when they were conducted in person. GENEX was also able to transition to virtual trainings with high rates of participation.

- **EQ2.12 To what extent did stakeholders benefit from the project's attempts to provide virtual trainings as a result of the pandemic?**

The Collective Efficiency Schools (CES) were moved to a virtual format during the COVID-19 pandemic, providing 517 slaughterhouse employees and DIGEMAPs staff with continued training on HACCP and other subjects pertaining to sanitary standards and other prerequisites for FSIS Equivalence. The effectiveness of the virtual format for these trainings was seen in the adaptation and implementation of the subject matter for the successful upgrading of the slaughterhouses to meet the required standards for FSIS Equivalence.

- **EQ2.13 To what extent did the technical assistance received by beneficiaries improve the management of their agrobusinesses, production and quality?**

As part of the outreach conducted by the livestock field schools, SAFE provided technical assistance through public and private extension agents and external consultants on improved farm agricultural production techniques, integrated farm management, and business plan development. For producers who implemented the techniques and practices, there was a

significant impact on productivity and also improvements in milk quality. As a result of USDA assistance, the number of farmers in the dairy and/or beef sector making decisions based on economic considerations or analysis reached 302% of the project goal, the number of farmers applying new techniques or technologies reached 83% of the project goal. Percentage of volume of grade “a” milk sold to processors by USDA supported milk collection centers also increased by 36%²⁸ (see the Impact section for a deeper discussion).

- **EQ2.14 To what extent did beneficiaries adopt the project’s improved practices and technologies and improve their agrobusiness’s management, production, and quality?**
Improved practices and techniques were adopted at both the producer and processor level leading to significant improvements where they were used. However, the numbers of beneficiaries who adopted new techniques and technologies fell short in some areas. For the indicator “Number of individuals who have applied new techniques or technologies as a result of USDA assistance” the target for men was over 100% achieved, but the target for women was only 24% achieved. When disaggregated by type, only the application of new techniques or technologies related to breeding genetics hit 100% of its target, while the application of new techniques or technologies related to animal health (39.8%) and animal feed (48.1%) missed the targets by a large margin. The indicator “Number of dairy farmers using improved milking and milk handling techniques as a result of USDA assistance” was only 57.6% achieved. The indicator “Number of individuals who have applied improved farm management practices (i.e., governance, administration, or financial management) as a result of USDA assistance” was 100% achieved.

3.4. Efficiency

A. Organizational Challenges

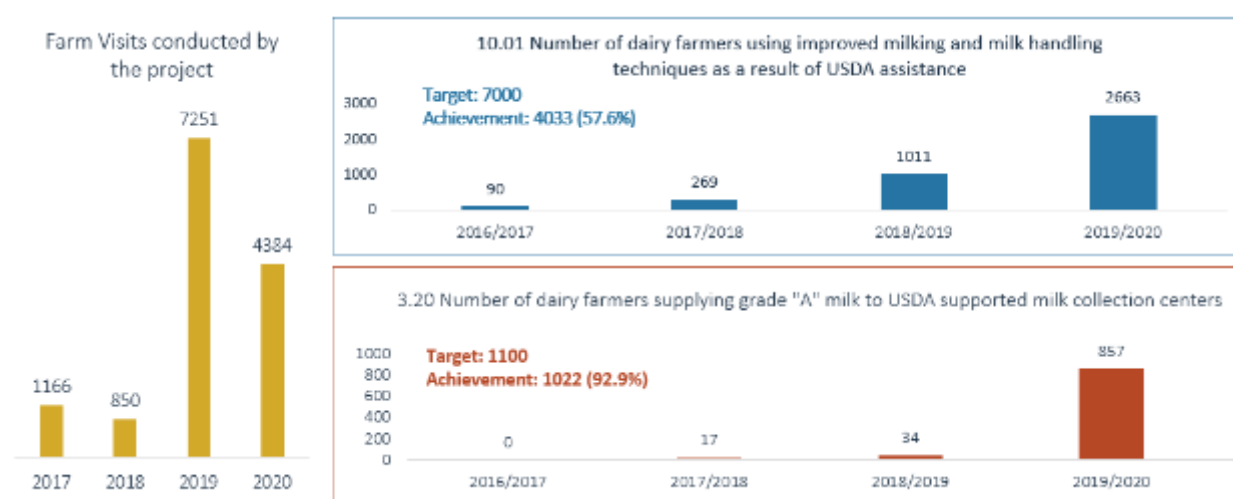
During KII’s project staff, project partners, and government stakeholders universally noted that organizational challenges hindered the projects’ ability to make progress over the first two years. An initial challenge was delays in the monetization of commodities by which the project was funded, which took six months longer than planned. Over this period, changes in commodity prices contributed to a projected budget shortfall ranging from \$467k-\$710k in 2020 for which supplemental commodity was awarded to NCBA CLUSA in September 2020. This commodity was monetized in April 2021 leaving the project with an overall budget shortfall of \$185,000²⁹ When work on the project finally began following monetization, implementation was hindered by disagreements between the project’s implementing partners and a failure to properly implement the livestock field school methodology and provide technical assistance for producers (which seems due in part to a lack of a clear transfer of goals from proposal team to project team). Due to these challenges, implementation over the first two years of the SAFE project got off to a slow start, with progress mostly only made on trainings and holding initial meetings to start moving the equivalence process forward.

²⁸ The complete table of results and activity indicators can be found in Annex 1.

²⁹ A supplemental commodity award, which was monetized at \$407k, was granted in September 2020 which allowed the project to continue operations until the end of April 2021.

In early 2018, NCBA CLUSA decided to make some organizational changes, which led to the hiring of a new Chief of Party (CoP) and Technical Director. The project also brought on specialists for genetics (to coordinate with GENEX), PO strengthening, financial services, and extension services. The change in leadership team went a long way towards jump starting many of the project activities and – as we heard in several KIIs with stakeholders not involved directly with the project – to reestablishing trust with value chain and government actors. One interviewee summed up his perception of the project as “a program with too much bureaucracy. Most of the resources went to salaries and vehicles.” In 2018 the livestock field school methodology began to be correctly implemented and in 2019 private extensionists were established through POs with project support. As can be seen in Figure 15 below, the increase in project activities at the producer level correlate to the arrival of the new leadership team. The equivalence process also began to move forward quickly under new leadership.

Figure 15. Increase in Activity Following New Project Leadership in 2018, Demonstrated by Key Data



Another challenge that has plagued project implementation from the beginning is data integrity, caused at least in part by multiple changes in M&E systems. The initial M&E platform – LogAlto (in use from project start in 2016-January 2018) – was an off-the-shelf system which was difficult for extensionists to use in the field, due to its lack of offline capabilities. For this reason, the project hired K&F Consulting, which had successfully developed a system for another NCBA CLUSA project in El Salvador, to develop the PROGIS system from scratch. While this solved issues with offline data collection, there were many issues with the data whether due to the system itself or what was being input into the system. As was reported in the midterm evaluation, the PROGIS database had a number of errors including incorrect or missing beneficiary contact data, duplication of beneficiaries, and inconsistencies in the overall number of project beneficiaries. The midterm recommended that “SAFE staff should audit beneficiary contact data and update entries where required. Staff should also use this audit to resolve inconsistencies in overall beneficiary numbers and disaggregate by beneficiary type.”³⁰ The project followed up on this recommendation and hired a statistician to conduct a full audit of the data and replace PROGIS with a SharePoint database. This seems to have solved the major issues, but inconsistencies in some of the data remain and were experienced during the final evaluation (see comments in the Methodology section above).

³⁰ J.E. Austin & Associates. “Safe Agriculture/Food Export (SAFE) Project Midterm Evaluation Report,” April 30, 2019, p. 70.

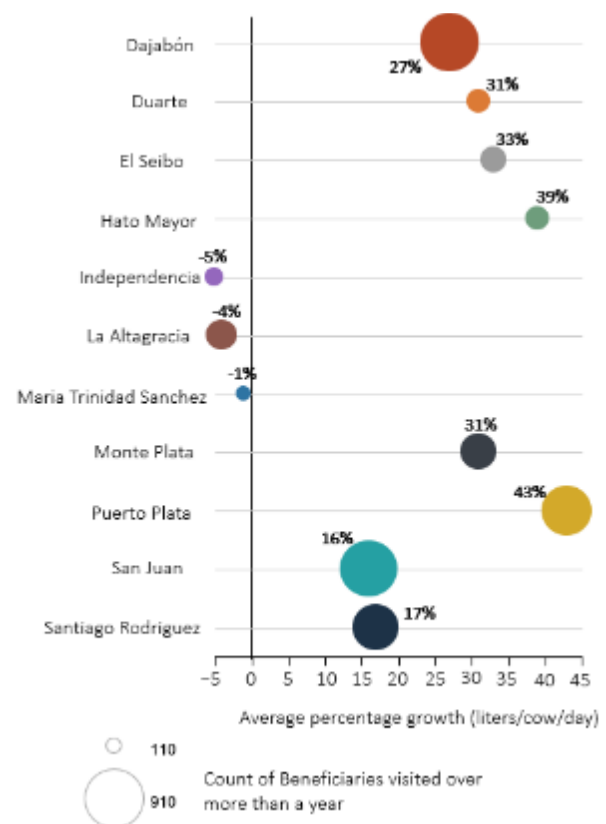
B. Scale and Implementation

The SAFE project's broad ambitions to address the major issues in the whole sector are well-aligned with the Food for Progress mission and results framework as well as the needs of the sector. However, implementing a project at this scale also comes with its challenges in delivering on all its objectives, and doing so in a consistent manner across all implementation areas. While technical materials, staff, and individual activities were often excellent and effective, the broad scope of the project, combined with the lost time due to organizational inefficiencies discussed above, necessitated prioritization of activities by the project team and led to impact for a smaller number of beneficiaries.

A key example of the scale and scope of the project affecting results, in this case the broad geographic scope, was in technical assistance at the farm level, where the quality of assistance provided to producers varied widely from province to province. Some of the producers and POs we spoke with across provinces reported varying levels of technical assistance and follow up by extensionists. A large factor in this may be the number of extensionists available in each province, with some only having one present. In addition to quality of technical assistance, other potential factors such as infrastructure, may explain the wide discrepancies in improvements in milk productivity for some provinces according to the project's farm visit data (see Figure 15 showing farm visit data for beneficiaries visited by extensionists over more than a year period). This is also in line with the variation in perceived impact on productivity, quality, and incomes from the producer surveys by province (see further discussion under the Impact section).

Beyond the scope and scale of the SAFE project's activities, there were also implementation concerns brought up by beneficiaries. In particular, the SAFE project's application of grants criteria was opaque for many beneficiaries, especially at the producer level. Our FGDs with producers in several provinces showed confusion with how the project selected beneficiaries, and which beneficiaries received assistance and grants. Who received milking parlors – and who did not – was a sore spot for some survey respondents and interviewees. This seems to have been a communication issue, rather than an actual lack of clear criteria as these were in fact written down and made available by the project. However, it is apparent that better communication of these criteria to potential beneficiaries may have prevented confusion. There were also concerns that the project did not always prioritize activities in a way that made sense. Some producers noted that in some cases funding went to build milking parlors, while the most pressing issue for producers was actually that their cattle were dying from lack of water.

Figure 16. Differing Results in Productivity Increases by Province May Reflect Differences in TA Quality



C. Efficiency: Conclusions

- **EQ3.1 To what extent, appropriateness, and functionality have the various units/ levels of management and coordination (grants, project staff, M&E, local committees, USDA/W, USDA/Santo Domingo and others) supported the implementation of the project?**

Despite initial inefficiencies and delays due to organizational challenges in the first two years of the project, the restructuring of project leadership in 2018 improved the efficiency of implementation and led to the achievement of most of the project's activity indicators (though with some notable exceptions and without activity completion always feeding directly into results).

- **EQ3.2 To what extent were the size and composition of the teams appropriate to the strategies?**

Following the staffing changes in 2018 and the proper implementation of the livestock field school methodology as originally intended – including the hiring of private extensionists – the team composition and size was appropriate to the strategies. However, organization of staff was at times too siloed by activity, with functions assigned based on which contractor or subcontractor hired staff, rather than the project working as a cohesive team.

- **EQ3.3 To what extent do the various project activities support each other?**

The project's activities are aligned with each other and Food for Progress results frameworks and are designed to achieve results that build on each other. However, the broad scope of the project posed challenges to implementation, especially when combined with project delays, leading to uneven implementation in some activities and fewer beneficiaries experiencing impact than originally planned. Due to the lack of a rigorous value chain framework, indicators in many cases were poorly designed or did not build upon each other (e.g., an activity indicator might be achieved 6,000% yet we see little progress towards the associated results indicators).

- **EQ3.4 To what extent has the process of project implementation including finance and administration optimized time and resources?**

The SAFE project's organizational challenges, as well as financial challenges related to the delays in monetization and less than expected returns due to variations in commodity prices, have prevented the project from optimizing the time and resources at its disposal. Nevertheless, the second leadership team made great strides in remedying this over the last two and half years of the project.

3.5. Impact

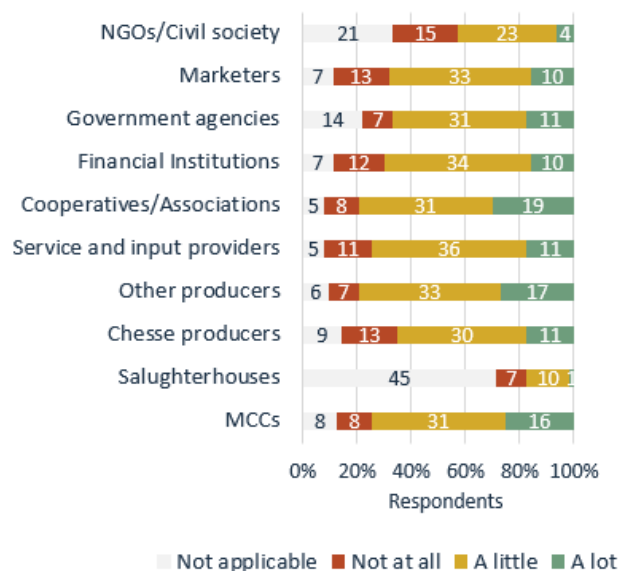
A. Project Impact

Market Access and Trade

Progress on equivalence has made strides, as described above, and has potential for significant long-term impact if achieved. Additionally, there have been increased market linkages between some value chain actors, such as *queserías* we spoke with who were able to get their products into supermarkets they had previously failed to enter and MCCs and large processors which expanded the number of producers from whom they buy their supply of milk.

However as can be seen in Figure 17, at the processor level most survey respondents felt that their relationships with other value chain actors improved “a little.” There also seems to have been missed opportunities for increased linkages especially with larger buyers. In particular, more could have been done to work with Nestlé and Grupo Rica to develop ways to support the POs through co-financing extension services and other activities beyond the length of the SAFE project. According to at least one high-level interviewee, Grupo Rica has expressed interest in supporting continued technical assistance to producers.

Figure 17. Processors Survey - your relationship with the following actors increased



Milk Productivity

The key measure of productivity in the dairy value chain is liters per cow per day (l/c/d). Historically the DR has had very low milk productivity, due to poor practices and the preponderance of small producers with less resources and access to know-how.³¹ The SAFE project’s baseline study cited a number of studies done on the topic over the years with estimates for the average productivity nationally coming in between 2.76-5.73 l/c/d.³² Official government estimates from DIGEGA came in at 3.73 l/c/d in 2015³³ and 5.4 l/c/d in 2018³⁴ and USDA FAS estimated in 2018 that the national average fell from 5.5 l/c/d in 2014 to 4.9 l/c/d in 2018.³⁵ Data from farm visits conducted as part of the SAFE project over its implementation period reflect numbers within these ranges (the averages for every province fell between 2.2 l/c/d and 6 l/c/d).

³¹ For comparison, OECD data in 2018 shows developed countries average 12 l/c/d and LAC countries average 7.5 l/c/d. *Sistema Presupuestario Dominicano, “Presupuesto Orientado a Resultados 2020-2023,”* 2019, p. 259.

<https://www.digepres.gob.do/wp-content/uploads/2019/10/Presupuesto-Orientado-a-Resultados-2020-2023.pdf>

³² OTSCORP. “Safe Agriculture/Food Export (SAFE) Program Dominican Republic Project Baseline Survey,” October 13, 2016.

³³ DIGEGA. “Memoria 2015,” 2015, p. 52. <http://www.ganaderia.gob.do/transparencia/index.php/plan-estrategico/informes?download=90:memoria-ganaderia-2015>

³⁴ *Sistema Presupuestario Dominicano, “Presupuesto Orientado a Resultados 2020-2023,”* 2019, p. 259.

<https://www.digepres.gob.do/wp-content/uploads/2019/10/Presupuesto-Orientado-a-Resultados-2020-2023.pdf>

³⁵ USDA FAS. “Opportunities and Challenges in the Dominican Dairy Sector,” May 6, 2019.

Despite this variety of evidence showing DR's national productivity has traditionally been very low – as acknowledged by the baseline report itself – the baseline survey came out with a much higher average number of 7.5 l/c/d upon which the project's goal of increasing milk productivity by 50% was based. As many of our KIIs with project staff and partners have pointed out, this number seems problematic, and potentially a major reason the SAFE project fell short of its goal (a 12% increase over the baseline was achieved). It is unclear exactly why the baseline numbers were higher than expected, but it may be related to the method for how the data was collected, with surveys of producers yielding more inflated responses than farm visits by extensionists. The numbers reported by our survey would seem to back this theory up as our averages for beneficiary and comparison group producers are 8.23 l/c/d and 7.14 l/c/d respectively.

To support transparency, objectivity and rigor, we take several different approaches to measuring the project's impact on milk productivity. Our first approach takes the baseline number at face value and compares it with the l/c/d figures report by beneficiary producers in our end-line survey. The table below shows this comparison and the resulting 10% gain in productivity based on this calculation. However, due to the issues mentioned previously, we are not sure this is the most accurate approach, given the concerns with the baseline figures as well as changes endogenous to the value chain as a whole over the time period of the project.

Table 11. Baseline vs End-line Milk Productivity

Baseline Survey (l/c/d)	End-line - Beneficiaries (l/c/d)	% Gain from Baseline to End-line
7.5	8.23	10%

A second approach compares beneficiary producers with our non-beneficiary producer comparison group. This comparison group gives us a way of comparing the progress of beneficiaries compared to an otherwise similar set of producers at a single point in time. This approach better addresses the issue of the overall decline in milk productivity experienced by the DR over the last 3-5 years, reflected in some of the secondary sources cited above, due to droughts in 2016 and 2018 and other factors that affected the value chain as a whole.³⁶ The beneficiaries at the end-line survey had 15% higher average productivity in l/c/d than the comparison group. However, as stated earlier, these findings should not be interpreted as proof of causal impact attributable to project activities.

Table 12. Comparison Group vs Beneficiary Milk Productivity

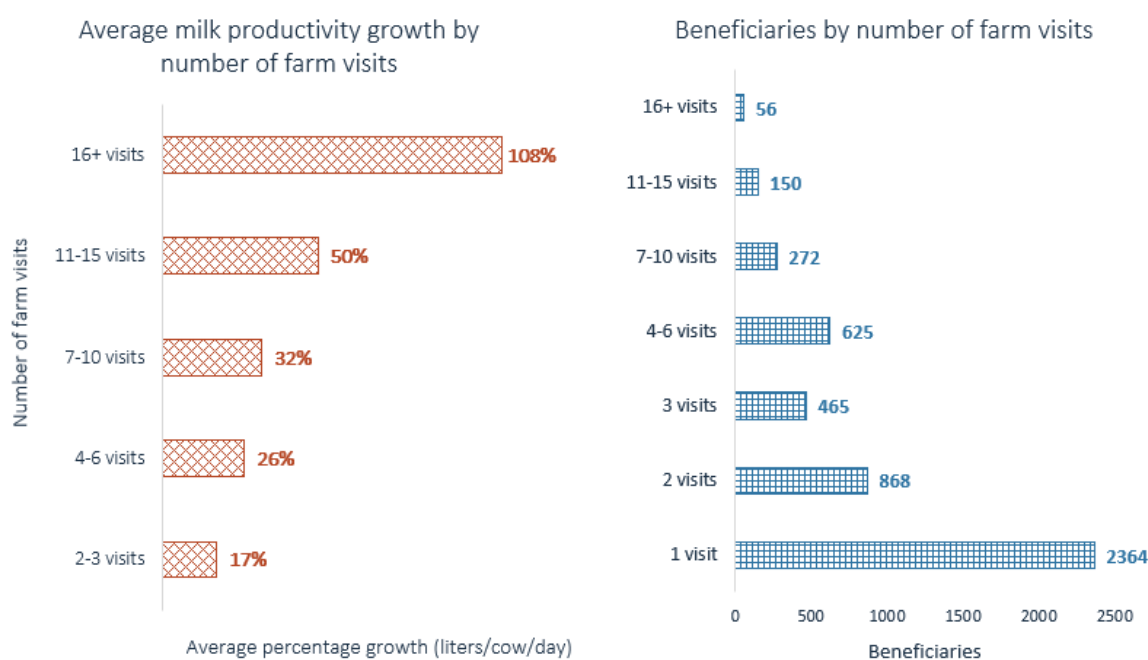
Comparison Group Survey (l/c/d)	End-line - Beneficiaries (l/c/d)	% Difference in Milk Yields between Comparison Group and End-Line Beneficiaries
7.14	8.23	15%

Our first two approaches give us a glimpse at the average improvement in milk productivity as measured by l/c/d for beneficiaries overall. However, it is clear from our KIIs with project staff as well as the farm visit data collected by extensionists, that the level of uptake of techniques and regularity of follow-up visits by extensionists to provide technical assistance varied greatly between beneficiaries. This leads to a third approach analyzing the progress in l/c/d as reported during farm visits by extensionists, which demonstrated much higher levels of productivity improvement for producers who received regular farm

³⁶ J.E. Austin & Associates. "Safe Agriculture/Food Export (SAFE) Project Midterm Evaluation Report," April 30, 2019, p. 32.

visits over an extended period (see Figure 18 below). While the number of beneficiaries who received the level of support to increase productivity by 50%+ was only about 5% of the total (in part due to program challenges and the COVID-19 pandemic as discussed above under Efficiency), it provides strong evidence for the efficacy of the livestock field school methodology and technical assistance when fully implemented. The disparity in the number of farm visits to each producer was impacted by multiple factors. First, in the initial years of the project, these visits were not systematically organized, and data has not been collected for the same. In the latter years of the project, under new management, there was a campaign to recruit new producers that involved farm visits conducted by private extensionists, which is when farm visits were increased and data on productivity for more comprehensively collected. However, due to the proximity of private extensionists to livestock field schools, the producers that lived close to these field schools received the most visits. Secondly, as mentioned above in the evaluation design and methodology section, funding and COVID-19 related constraints limited project activities and impacted the number of farm visits.

Figure 18. Milk Productivity Growth, with Farm Visits as a Proxy for Level of Technical Assistance³⁷



Perceptions of producers, processors, and POs with whom we spoke are in line with this data on milk productivity, with increased productivity recorded at the farm and processing level due to the livestock field schools and associated technical assistance and grants delivered by the project³⁸. Seventy-five percent of beneficiary producers said the project led to increased productivity for their farm, while 76% of processors reported they were able to invest in new technology of which 84% reported this technology improved their productivity. Beneficiary producers perceived that project activities directly led to increased household incomes (71%) and increased sales (73%). For processors, 73% reported that they gained new clients due to project activities. As shown in the table below, perceptions of impact on

³⁷ Data is farm visit data drawn from project M&E database, collected by project extensionists.

³⁸ Average milk productivity growth was not measured by the evaluators for beneficiary producers who only received one farm visit, since these producers were not visited again by project extensionists to track productivity.

productivity and impact on household income vary significantly by province, with the eastern provinces tending to lag.

Table 13. Perceptions of Impact on Milk Productivity and Household Income Vary by Province

Province	Your productivity has increased		My household income has increased thanks to project activities	
	Total Responses	% Yes	Total Responses	% Yes
Dajabon	67	81%	68	75%
Duarte	17	71%	17	71%
El Seibo	15	40%	15	53%
Hato Mayor	10	50%	10	50%
Independencia	10	80%	10	90%
La Altagracia	19	47%	19	63%
Maria Trinidad Sánchez	7	100%	7	100%
Monte Plata	30	83%	30	83%
Puerto Plata	48	77%	48	67%
San Juan	43	74%	43	70%
Santiago Rodriguez	39	85%	40	70%

Milk quality

Measuring milk quality can be challenging and a cause of controversy between producers and MCCs. This is due to the fact that producers may produce grade “A” milk at the farm, but by the time it reaches the MCC it may have spoiled due to lack of proper cold storage during transport, or else producers may not even know the quality of the milk they produce but may believe MCCs are trying to rip them off when they tell them they must take a lower price for lower grades of milk. There are also issues at the MCC level, where milk is often mixed and one bad batch can ruin the quality of the whole quantity. The SAFE project activities to strengthen MCC management and milk handling practices for participating MCCs and processors as well as provide technical assistance and investments, such as milking parlors, at the farm levels were aimed at improving the milk quality sold by producers to MCCs and from MCCs to processors and retailers. The project also worked with CONALECHE on milk quality and INDOCAL to provide training for producers and MCCs on technical standards and food labelling standards, though in our KIIs with INDOCAL they noted that producer participation was low.

Figure 19. Dropping Off Milk at a MCC in Dajabon



The key results indicator for milk quality is “Percentage increase in volume of grade “A” milk sold to processors by USDA supported milk collection centers,” which was given an initial goal of 50% increase over the course of the project. As noted in the section above, this is one of the 6 results indicators

where the project fell short of meeting its targets, with a 36% improvement over the period of the project. Most of these gains were made over the last two years of the project, and it is likely that the first two years of minimal work in the field is the primary contributing factor for missing this target. Additionally, even where improvements were made at both the production and MCC levels, lack of proper cold storage during transport is a major obstacle to increasing milk quality which needs to be addressed.

Farm-level improvements in quality made through technical assistance by private extensionists as part of the livestock field schools, had some success in improving milk quality as well as productivity. One example, Association of Cattle Ranchers of Santiago Rodríguez (AGASAR) received a one-year matching grant from SAFE to support an extension agent who in turn provided technical assistance and training to the association's producers, leading to an improvement in the association's milk quality from Grade C to A, increasing the value of milk delivered to AGASAR's MCC by 10% per liter.³⁹ While some producers and processors spoke glowingly of the project's technical assistance and its impact on their milk quality, other processors told us that milk quality from the producers who supplied them had not improved for them or in one case was even worse than before (due to the drought and producers even diluting the milk with water at times). As can be seen in Table 13, below, the improvements in quality as perceived by surveyed beneficiary producers – varied significantly by province. As with the variations in perceptions of increased productivity and incomes, the lower perceived increases in quality also tend to be in the eastern provinces. Although the Dairy Industry Decree 392-19 (published in November 2019) calls for regular inspections, it was not clear to the evaluation team that these inspections were frequently conducted and data regarding such inspections was not available.⁴⁰

Table 14. Producer Perceptions of Increased Quality Due to SAFE Project Activities

Province	The quality of your products have increased	
	Total Responses	% Yes
Dajabon	67	81%
Duarte	17	71%
El Seibo	15	40%
Hato Mayor	10	50%
Independencia	10	80%
La Altagracia	19	47%
Maria Trinidad Sánchez	7	100%
Monte Plata	30	83%
Puerto Plata	48	77%
San Juan	43	74%
Santiago Rodriguez	39	85%

B. Project Legacy

The legacy of the SAFE project over the coming years will depend greatly on what actions are taken as the project closes to ensure the sustainability of its successful activities. This will be discussed further in the Recommendations section below. With the right follow-through, the SAFE project has a chance to

³⁹ SAFE Project. "Performance Report Summary: October 1, 2019-March 30, 2020," April 2020.

⁴⁰ Decree 392-19 for the Dairy Industry. November 19, 2019.

leave a legacy of introducing best practices and building the capacity of the livestock sector and related government entities to raise quality and productivity to new heights.

The SAFE project is perceived to have been the first program in many years to address the needs of the livestock sector at the level of the producer.⁴¹ The introduction of private extensionists has been well-received by producers and POs alike and promises to be an important part the value chain for the foreseeable future, as long as a way to continue their financing is found beyond the end of the project. SAFE has provided 80% of the funding to this point and as the funding has ended, the POs renegotiated their agreements to pay the private extensionists and only four out of the original 28 remained as of the time of the final evaluation. Most POs have not continued paying the extensionists (though this may be in part due to COVID-19).

SAFE also made unprecedented progress towards readying DR to reinstate FSIS certification of equivalence. Should this be obtained, as expected in the near future, this will be an important legacy of the project. The project has built the capacity of health and agriculture ministries to inspect the slaughterhouses and private investments have been made (complemented with grants) to meet international quality standards. The upgrading of the beef sector's practices – including establishing quality norms and HACCP certification – are a fact whether or not equivalence is granted.

C. Impact: Conclusions

- **EQ4.1 What was the impact of the project on...**
 - 1) Increased household income:** 71% of beneficiary producers reported that their household incomes increased due to project activities.
 - 2) Increased agricultural productivity:** Milk productivity improved according to a number of approaches for measurement of l/c/d. Comparing the productivity of beneficiary producers with the comparison group we see 15% increase in l/c/d. This lines up favorably with data from farm visits, which show even higher rates of improvement for producers who received regular farm visits from extensionists for an extended period of time.
 - 3) Increased market access and expanded trade:** While great progress has been made towards achieving FSIS certification of equivalence, there will not be impact on expanded market access and trade until it is approved.
 - 4) Increased quality of agricultural products:** There was a 36% improvement in the indicator, "Percentage increase in volume of grade "A" milk sold to processors by USDA supported milk collection centers." This fell short of the 50% improvement target, due to the shortened period that the livestock field schools were operating as well as a continued need for infrastructure and management improvements at MCCs.
 - 5) Increased public and private extension services:** Few producers had frequent access to extension services prior to the SAFE project. Through the project, MEGALECHE extensionists were supplemented by private extensionists co-financed with POs, with great success. Finding sources for long term financing for private extensionists will be a primary challenge for sustainable impact.
- **EQ4.2 How does the beneficiaries' perception of the project's achievements, especially the increase in productivity and income vary across value chains and regions?**

⁴¹ There was a well-known program funded by the Food and Agriculture Organization (FAO) several decades ago that first introduced extension and other technical assistance to the sector (several of the second phase team members had worked on that project).

Perceptions of impact on household income seem to be lower in the eastern provinces (50% in Hato Mayor, 53% in El Seibo, 63% in La Altagracia) and generally seem to follow patterns of perception of milk productivity and milk quality improvements which are similarly lower in those same provinces.

- **EQ4.3 What is the legacy of the project? Organize achievement categories from most significant impact to least significant impact.**

If equivalence is achieved, as is expected, this will be the crowning legacy of the SAFE project. The introduction of private extensionists and the livestock field school methodology have changed mindsets and been well-received by producers and POs alike. If made sustainable, they should provide a lasting influence on the livestock value chain and the increasing productivity and quality of milk and beef.

- **EQ4.4 Which activities were the most successful and the least successful? Why? Breakdown by intervention / activity.**

The most successful activities were those pertaining on one hand to equivalence and increasing SPS practices for the beef sector and on the other hand the livestock field schools and the technical assistance on milk productivity and quality, breeding, and farm management, that was reinforced through the private extensionists. On the other hand, the Seal of Quality was not fully developed, due in part to a lack of political will and in part due to premature market conditions.

- **EQ4.5 To what extent have beef and dairy ranchers' capacity to respond to on-farm shocks and daily activities improved as a result of the project, and why?**

Training in farm management practices, as well as improvements in productivity and quality, have allowed producers to earn more revenue and more able to prepare financially for shocks such as recurring droughts and COVID-19. In other cases, infrastructure investments through the grants program, such as solar panels, have added to producer resilience according to KIIs with project stakeholders.

- **EQ4.6 How has the project's activities strengthened local producer organization's governance, member services and equity, as well as incomes?**

While producer organizations (POs) received extensive training and capacity building, the project did not sufficiently prepare POs to continue the successful activities beyond the end of the SAFE project. Further, production shortfalls and depressed prices due to COVID-19 have further weakened PO incomes and their ability to self-finance extension services and other support for their member producers. This is despite 71% individual beneficiary farmers reporting a perceived increase in income due to project interventions.

3.6. Sustainability

A. Technical Sustainability

While the project has shown areas of significant impact, the technical sustainability of the project is not assured, at the producer level especially. As has been mentioned above, as the private extensionists hired through the SAFE project's 80%-20% cost sharing with POs no longer continue to support the producers, as the project is coming to a close. While COVID-19 may play a factor in this, it is also clear that despite widespread acclaim of the private extensionists and the livestock field school methodology, the POs are unable or unwilling to fund them on their own. No plan has been put in place to ensure their

sustainability as project closes, risking a loss of momentum on one of the SAFE project's greatest areas of success.

Similarly, experts on various technical areas in the value chain (e.g., genetics) no longer provide services as there is no other initiative to continue funding their activities. However, one promising finding from the survey, is that 88% of beneficiary producers say that they will continue to be able to apply the techniques they learned through the livestock field schools after the project is completed. Improvements made through new norms regarding SPS and co-investments at slaughterhouses (and to some extent at MCCs) are also likely here to stay. However, a plan for continued support for these activities is necessary if impact is to be had over the long term for the livestock value chain.

B. Financial Sustainability

Likewise, the financial sustainability of project activities is not assured as the project did not generate a cost-recovery mechanism or other measure to allow its continuity. This is a flaw in the project's original design, and so far, there are no other public institutions or international donors prepared to continue funding for the project's successful activities. That said, there are several donor and government initiatives that could be tapped to support the sustainability of successful SAFE interventions, if an effort were to be made to understand their goals for the sector, and a collective vision was developed with buy-in from leading private sector actors.

Producer organizations and other stakeholders welcome continued interventions but have not taken ownership of the objectives as something they can mobilize resources for and manage progress against. While capacity building has helped expand the capabilities of local organizations in many ways, local leadership has not been built to carry on and expand on many of the successes of the project. Some of this is due to financial constraints. As many POs mentioned to us in KIIs, recurring droughts and the COVID-19 pandemic have sapped resources and made it even more difficult for them to support producers adequately.

C. Institutional Sustainability

Progress towards achieving FSIS Equivalence has built a great deal of momentum and there is short-term optimism among most stakeholders that it will be achieved. The key to sustainability will be maintaining political will with the new government. So far, political will seems to remain strong and working relationships between government entities involved in the equivalence process have been strengthened through the SAFE project. However, it will be important to develop a longer-term plan with the government and other value chain stakeholders, especially if some of the more problematic issues are to be addressed (e.g., laboratories, strengthening of the primary linkages of the beef value chains).

**Figure 20. Team Leader Lara Goldmark
Interviewing ADHA President Ricardo Barcelo**



At the end of the SAFE project there remains great opportunity to modernize the MCCs and improve practices and norms related to hygiene at the producer level. As pointed out in a KII with Organic Valley, start-and-stop projects can be harmful when trying to implement long-term behavior change such as that necessary to improve milk quality. It will be necessary to ensure continuity of efforts as the SAFE project closes to ensure progress continues to move forward and that improvements are maintained. This should be done in such a way as to mitigate the effects of project start and stop which plague donor-funded programs. Convening government, international donors, and value chain actors will be an important first step towards ensuring sustainable progress in the livestock sector.

D. Sustainability: Conclusions

- **EQ5.1 To what extent have local actors (JAD, cooperatives and farmers' organizations, MCCs, slaughterhouses, local government and civil society groups) been involved in the management of the project?**

Local actors have played a key role in the management of the project. JAD was the key implementing partner of NCBA CLUSA for the SAFE project, responsible in part for supporting extension services and building producer capacity. In this role they played a significant part in activities at the producer level, despite challenges in the early years of the project with activity design and stakeholder coordination. Slaughterhouses and government agencies including DIGEGA and DIGEMAPS have played a key role in activities related to FSIS equivalence. Producer organizations were committed and participated, but their role is not best described as management.

- **EQ5.2 Which local counterparts have increased their capabilities to continue with the project's actions, and why?**

The most dramatic increase in capability was on the part of the government agency charged with regulating sanitary conditions of beef production (DIGEMAPS). Producer organizations and other stakeholders have increased their capacity but have not taken ownership of the project's objectives and activities moving forward. Measures must be taken to find sustainable ways to finance key project activities for sustainable impact to be made.

- **EQ5.3 Which partnerships were the strongest and why?**

Among the strongest partnerships of the SAFE project have been those related to preparing for equivalence, particularly those with DIGEMAPS and the slaughterhouses. At the producer level, partnerships with POs were also particularly strong with enthusiastic participation for the most part. POs, particularly livestock associations, were strategically important to the project due to their position as intermediaries with producers in the value chain who were a key beneficiary of

the project. The associations, through co-investments and operational support, played a key role in the hiring of private extensionists and support of the livestock field schools.

- **EQ5.4 What is the probability that these actors will be able to provide succession?**

With the new government, there are stakeholders keen to continue support for the growth of the sector. There are also international actors, such as the IDB which has an upcoming project which may have interest in supporting successful activities in the livestock sector. Specifically, there is an agricultural census planned and local stakeholders should advocate to ensure this moves forward. Financial institutions are also ready to be included at the table, as indicated by key informant interviews. Measures should be taken during the close-out of the project to convene government and other value chain stakeholders to find ways to continue building upon the achievements of the SAFE project, otherwise there is a low chance that local stakeholders will take ownership and provide succession for the project's activities.

- **EQ5.5 Are the techniques and technologies used in the project easy to maintain locally? To what extent are the conditions for local control of these techniques and technologies guaranteed? Are people facing any additional challenges in light of the pandemic? Prioritize activities to continue after the project closes from most likely to least likely.**

Yes, at both the producer and processor levels techniques provided by the livestock field schools and technical assistance are easy to maintain locally and should continue to be used beyond the end of the project. For beneficiary producers, 88% say that they will continue to be able to apply the techniques they learned after the project. One area where it will be more difficult to maintain without further support will be breeding/artificial insemination. An illustrative list of activities which should be prioritized for continuation, as discussed in the Recommendations, would be follow through on Equivalence, mainstreaming the livestock field school methodology, and finding sustainable ways to maintain the private extensionists.

- **EQ5.6 To what extent do the project interventions support and stimulate the local economy?**

Increased milk productivity and milk quality have direct impact on farmer incomes. As mentioned in the Impact section above, 71% producers surveyed told us that they perceived that their incomes increased due to SAFE project activities. If equivalence is achieved, there will be a clear opportunity for beef exports to Puerto Rico according to the market study conducted by the project. The ability to place this industrial meat product will allow meat producers to sell more of the higher end cuts to local supermarkets and hotels (assuming tourism recovers in the medium term.) To obtain more precise data, we suggest developing a detailed value chain map that contains quantitative indicators related to volumes, price points, and quality; in both the dairy and beef chains. Given that the project has recently gathered good quality data on the farm level for dairy production, emphasis should be placed on mapping buyers and supporting service actors. If additional farm-level data gathering is conducted, it should be done so in the context of the national agricultural census, planned as part of the Inter-American Development Bank's upcoming project. For the beef value chain, a quite viable value chain upgrading strategy has been discussed among the stakeholders involved in preparing for equivalence; this could serve as a road map.

- **EQ5.7 Which of the following project impacts are likely to be sustained and/or scaled-up after the project closes?** 1) Increased household income, 2) Increased agricultural productivity, 3) Increased market access and trade, 4) Increased quality of products.

Table 15. Impacts Most Likely to be Sustained or Scaled Post-Project

Increased household income	This should be able to be sustained; to scale up and continue increasing incomes, the below impacts will need to be continued.
Increased agricultural productivity	Major progress was made here but further support to livestock field schools and private extension will be needed in medium term. Productivity growth in terms liters/cow/day varied widely by province, with Puerto Plata and Hato Mayor exhibiting the largest growth at 43% and 39%, and Independencia and La Altagracia experiencing negative productivity growth of -5% and -4% respectively (see Figure 16).
Increased market access and expanded trade	This will depend on achieving equivalence. Further work is needed on the dairy side.
Increased quality of agricultural products	Progress was made here but further support is needed to obtain buy-in (i.e., contribution of resources) from value chain actors and scale up. Improved quality will require increased focus on mitigation of chemical dangers like pesticides, drugs, and natural toxins, biological hazards like pathogens (Salmonella, E Coli, etc.), and physical dangers like wear of equipment and careless handling.

For each of the impact mentioned above, there is potential sustained and scalable impact if the right follow-up measures are taken along with the government and other stakeholders. For producers who were direct beneficiaries of the project, the impacts on productivity and income should hold to some extent in any case, because the practices which producers learned through the livestock field schools are easy to maintain. Increased market access and trade will rely in large part on equivalence being achieved, and increased quality of products is an area where more work is still needed, though progress has been made.

- **EQ5.8 Identify and explain short and mid-term challenges to sustain program results, and what actions could be taken before the end of the project to mitigate those challenges, if any.** As described in detail through this report (see especially the Efficiency section), there have been several challenges to the achieving results. The delay in implementation of project activities over the first two years of the project prior to new leadership, problems with the M&E database, recurring droughts which affected milk productivity, and the COVID-19 pandemic. The project mitigated these challenges through installing new leadership, auditing the M&E data and implementing a new SharePoint-based M&E database, and through adjustments to program activities to address the droughts and pandemic. However, more could have been done starting at the program design phase (see Relevance section). Despite these challenges the project has achieved impact, but for this to be sustainable further action is needed (see Recommendations).

- **EQ5.9 To what extent are local government actors likely to achieve FSIS equivalence and continue strengthening the food safety inspection system?**

Most project, government, and value chain stakeholders we spoke with think it is likely that equivalence will be achieved. TAMU staff, who ran the mock-audit in preparation for the FSIS audit originally scheduled for March 2020, told us that they believe equivalence would have already been achieved had the COVID-19 pandemic not occurred and postponed the audit indefinitely.

- **EQ5.10 To what extent did modifying the traditional training methodology to the methodology in the “Collective Efficiency Schools” permit improved learning and application of the concepts?**

Adapting the collective efficiency schools (CES) methodology to a horizontal format similar to the livestock field schools was generally perceived by relevant stakeholders as a success, despite the forced move to a virtual format due to the pandemic. CES allowed the training of 517 slaughterhouse employees and DIGEMAPS staff in HACCP and other topics relevant for improving SPS measures and achieving equivalence.



4. Conclusions

4. Conclusions

The findings of the Final Evaluation of the SAFE project make clear that despite a slow start and external challenges posed by recurring droughts and the COVID-19 pandemic, the project achieved some significant accomplishments. These include most prominently:

1. Progress made towards achieving FSIS Equivalence for beef exports to the US, which most likely would have been achieved had not the pandemic delayed the audit scheduled for March 2020.
2. Improvements in HACCP, and sanitary practices and norms and through private co-investments in slaughterhouses participating in the SAFE project.
3. Proof of concept of the livestock field school methodology, enhanced by the use of private extensionists to provide hands-on training, technical assistance, and accompaniment for livestock producers.

Relevance: The SAFE project provided a comprehensive program design with activities that were relevant to the needs of the livestock sector (dairy and beef). Seventy-eight percent of the beneficiary producers we surveyed reported the livestock field schools as being beneficial to them and 79% of processors and MCCs reported that they received high quality services from the project. Nevertheless, there were several challenges from the beginning of the project. The first was the lack of sufficient multi-stakeholder participation in the project design, despite the whole-of-value chain scope of the project. Secondly, no foundational value chain assessment was conducted at the early stages of the project, to inform interventions and ensure realistic targets for results indicators. This was exacerbated by a lack of clarity of beneficiary focus in the design phase. Finally, a third challenge was the failure to anchor program interventions upon an initial agreement with public sector and private sector stakeholders on key goals and aspects of measurement, to achieve stakeholder buy-in and a clear plan for sustainability at the project's conclusion.

Effectiveness: The activities of the project were effectively implemented, with a high level of achievement (90% of key activity indicators achieved at 100% or more). However, results achievement has been lower (68% of results indicators reaching 100% or more), in part due to delays in the first two years of the project and the COVID-19 pandemic. Progress towards achieving FSIS equivalence is a major milestone for the livestock sector and the progress made in improving norms and sanitary practices at participating slaughterhouses is here to stay. At the producer level, the livestock field schools and private extensionists co-financed by the project were a major achievement, and piloted successful practices for improving milk productivity significantly. Activities related to access to finance and to the Seal of Quality for dairy products were less effective.

Efficiency: The major obstacle to results achievement for the SAFE project was the lack of progress made in the first two years of the project. Staffing changes made in 2018 greatly accelerated project activities, and the quantity and quality of results achieved in the last two years of the project speak for themselves. However, the delays in the first phase, challenges with the project's M&E systems, large scale of the project's implementation area, and lack of clear criteria for distributing grants were hard to overcome entirely and contributed to the shortfall in achieving the project's results indicator targets.

Impact: The SAFE project's activities demonstrated impact in several areas. Most notably, the project is one of the few to address the livestock producer level in the DR, and for those producers who participated in the livestock field schools and associated technical assistance the impact on productivity has been significant. Most producers surveyed for this evaluation also claim increases in household incomes due to project activities. The introduction of private extensionists has been well-received and promises to be an important part of the value chain if a way to continue their financing is found beyond the end of the project. Improvements in milk quality were made, but improvements including those in transportation and infrastructure at the MCCs are still needed to see the level of progress anticipated in the project's targets for milk quality. Increased market access for beef exports and trade have not seen any impact as of yet, but should equivalence be achieved as is anticipated by most stakeholders we spoke with, then the impact here could be significant as well. At the end of the day, the legacy of the SAFE project will depend very much on reinstatement of FSIS equivalence and on what actions are taken as the project closes to ensure the sustainability of its successful activities.

Sustainability: The SAFE project has had some notable successes, and the techniques taught in the livestock field schools and improvements made in the slaughterhouses are still being used today. However, long-term sustainability will require continued engagement by local stakeholders, and if possible continued investments in project interventions. Most extensionists hired by the project already have stopped providing support to the producers as the project's funding has come to a close. As of yet, no local actors have stepped up to take the lead, and while the technical capacities of POs have been strengthened, they have not embraced a leadership role in moving forward the project's objectives. JAD did indicate that in interviews for this evaluation that they are interested in continuing to support the private extension program, and APROLECHE is another local organization that expressed interest in supporting work to further develop the sector. These organizations are potential catalysts for a coordinated local effort to ensure sustainability. The SAFE project should initiate and/or continue conversations with these organizations and the new government of DR to ensure the continuation the project's successful interventions.



5. Recommendations

5. Recommendations

These recommendations are designed to take the accomplishments of the SAFE project and build upon them in a way that leads to sustainable interventions that grow the beef and dairy sectors through increased productivity, quality, and trade. To develop them, the team drew from the findings of this evaluation, the lessons learned, and the insights of stakeholders we interviewed from the project team, the government, and the livestock (beef and dairy) value chain. We include a frank discussion of several major issues that might normally be considered beyond the scope of a routine evaluation. This is because we have been encouraged to do so in our interviews with USDA, program staff, and local stakeholders; and because we genuinely believe there is potential to build on the work of the SAFE project to continue to upgrade the livestock value chain in the Dominican Republic. It is therefore with the best intentions that we: (i) raise issues related to the original project design, overarching objectives, and associated results frameworks; (ii) recognize management and implementation challenges; (iii) question expectations for working with data; (iv) identify how, where, and to what degree project activities appear to have generated impact; and finally (v) suggest a path forward, with the clear understanding that there is still more work to do. Recommendations related to items (i-iv) are general, while those related to (v) are designed to be immediately actionable in the current context in the Dominican Republic.

Project design, objectives, and results frameworks

Livestock value chains globally pose many unique challenges, requiring constant intensive care in the form of feeding, watering, management, and healthcare⁴². The Dominican Republic is no exception, and there are additional particularities: small market size and island location, recurring droughts, split oversight responsibility between the Ministry of Agriculture and Health, and a custom in some cases of delegating farm management to third parties.

The SAFE project was designed to achieve two objectives, (1) raise productivity, and (2) increase exports. These two objectives do not always naturally pull in the same direction, even when they are for the same product - as smaller producers most in need of improving productivity generally differ from larger producers with export potential. In the case of SAFE, the productivity objective is more relevant for milk while the export objective is more relevant for beef – yet this was not explicitly clarified. Nor was it clear whether the goal was to work with small, medium, or large producers. Perhaps it should have been.

Any value chain has multiple problems at multiple levels. There is a tendency for large donor projects, and especially those funded by the US government, to make large lists of those problems, and to check off the outputs of problem-solving efforts as they are implemented, and then to expect that these will add up. Sometimes they don't⁴³. In the case of SAFE, this can be reflected in the efforts to contact and train large numbers of livestock producers and other stakeholders (sometimes reaching up to 6,000% of targets). Yet, these efforts did not translate into full achievement of the higher-level productivity and quality goals in the dairy value chain. We suggest that the use of a generic USDA results framework

⁴² Don Humpal. Agricultural expert. *Key Informant Interview*. September 2021.

⁴³ See William Easterly. "Multilateral development banks: promoting effectiveness and fighting corruption: "Accountability for multilateral development banks", " Committee on Foreign Relations United States Senate, 2006.

http://williameasterly.files.wordpress.com/2010/09/senateforeignrelationscommittee_oraltestimony_032806.pdf and the discussion of complexity theory and competing accountability demands in Sarah Holzapfel. "Boosting or Hindering Aid Effectiveness? An Assessment of Systems for Measuring Donor Agency Results," *Public Administration and Development*, vol. 36, no. 1, February 2016, pps 3-19. <https://onlinelibrary.wiley.com/doi/full/10.1002/pad.1749>

within which FFPr projects operate and design their own sub-framework is practical, yet in the reporting from implementers to USDA, may lead to a glossing over of the particular challenges that projects experience and the discussion about how activity indicators are feeding into results. There are also too many indicators, and too many activities, to manage effectively. There was so much effort put in by SAFE staff to conduct outreach in all eleven provinces in order to achieve these goals, whereas it may have been more beneficial to work with a smaller geographical area at first, reaching proof-of-concept with behavior changes achieved through the livestock field schools and the accompanying productivity and quality improvements, and then expanding to other regions. This may also have been more manageable for JAD, the local implementation partner, to handle⁴⁴.

USDA should recognize project results frameworks and ensure that everyone (project team, USDA, external stakeholders) agrees the objectives are feasible to achieve and that activity level outputs can indeed be expected to trigger the achievement of outcomes. External stakeholders can be a valuable voice in this case because they may be more willing than an implementer to holler when they see something wrong. Quality and productivity indicators should be consistent with the measurements used in local markets (unless a part of the intervention is to change measurement norms) so that private sector partners can see clearly the value that is being created. This ground truthing of the results framework and indicators with stakeholders can take time; and should be repeated periodically. If the indicators aren't interesting to the stakeholders (which is sometimes the case) that should be a red flag that the project is overly output-focused.

Below is an analysis of three key challenges the program faced. Following that is a table that presents recommendations for future projects to develop the livestock value chain, whether funded by USDA, other donors active in the Dominican Republic. The final paragraphs detail a set of actions that are appropriate to take regardless of international donor involvement – i.e., relevant for government and local business leaders; and are based on the insights and ideas of local stakeholders interviewed during the evaluation.

1) Management and implementation challenges

Successful leaders of development projects know how to solve problems and work with stakeholders, including donors, to adjust and adapt activities and goals so that the project continues to move in the general direction of the desired outcomes, even if in some cases these are not identical to the planned or expected activities and outcomes. What makes a good – adaptive – leader, however, is not always aligned with the way donors and their implementers screen candidates to be project director at the proposal and project initiation phase⁴⁵.

In the case of SAFE, there was general agreement that the first project management team did not perform as well as hoped, and we as the evaluation team took that statement at face value and don't

⁴⁴ As one stakeholder put it, "JAD was in way over their head with the size and scope of the program, so that impacted how effective they actually were in coordinating these activities, communicating with all the stakeholders, and getting to know the strengths and weaknesses of support institutions in order to strengthen them."

⁴⁵ Screening is more related to credentials, technical experience, and past experience with similar projects or donors. Management experience is considered, but management is not the same as leadership, and development requires leadership. "Soft" skills and ability to persuade are not considered, at least "on paper." Given that project award decisions are made at the same time as staffing decisions, and these are conducted by reviewing proposal documents, there is little opportunity for more nuanced evaluations of project leaders. Some USAID and MCC selection processes recently have begun to require a presentation by the project team prior to award, as CLUSA did before awarding the evaluation contract to Just Results.

recommend spending much time or energy trying to analyze it. We also were told – and in this case the data speaks for itself - that the second project team made incredible strides and that due to them the project was able to achieve the results that it did. This also we do not contest and we commend that second team for its hard work, talent, and performance. That said, it is important not to personalize the performance of projects and rather, ask the question why it was difficult to perform, and how the project could have been better set up for success in the first place.

Most initiatives (start-up business, non-profit, fund-raising campaign, etc.) are asked to start small, prove themselves, and then expand.⁴⁶ Many donor-funded projects, in an effort to solve large problems, set up large teams and structures right from the get-go, without requiring these teams and structures to prove that they can perform and deliver results. Each project is unique, as is each team - and yet so many projects in international development face personnel issues, especially at the beginning. Project directors and component leaders with the right technical qualifications may not mesh well; individuals appointed to represent their organizations in consortium arrangements are not always adequately backed by their organizations nor are they necessarily knowledgeable in how to manage the institutional partnership and make the project work at the same time. At the end of the day, all of this distracts immensely from what should be the most important task at hand: engaging with stakeholders, developing buy-in for a collective vision, and rolling out project activities not for their own sake, but as catalysts for a larger process of transformative change.⁴⁷ How to do that is likely to change over the life of any project; therefore, activities and budgets should be expected to change.

In the case of SAFE, the lost social capital and credibility that came with the early years of struggling, meant that there were serious limits to what the second, highly qualified and motivated, team could do. Cultural norms in the Dominican Republic also favor non-confrontational problem solving, which often takes longer than direct, less diplomatic methods. This was mentioned in the KIIs with project staff and confirmed by the leader of the Dominican data collection team. This is why, when we see what was achieved in such a short time (the increases in milk productivity for farmers receiving multiple visits, the progress towards equivalence, and the successful work-around to ensure the availability of laboratory testing services) we can only say that even more could have been achieved in that same time period if the system for financing and overseeing these types of projects was a bit more flexible in terms of permitting – even demanding – changes in focus and resource allocation as needed.

2) Working with data

Every member of the evaluation team will acknowledge that the data challenges encountered greatly affected the ability to complete the work in a timely manner. Once they were solved, we were able to get what we needed, however, there were many more questions we could have asked and many more comparisons that could have been made if – and only if --- the relevant baseline, mid-term, and program-level information had been gathered from the beginning, checked, cleaned and stored in an

⁴⁶ Neil C. Churchill and Virginia L. Lewis. "The Five Stages of Small Business Growth," *Harvard Business Review*, May 1983. <https://hbr.org/1983/05/the-five-stages-of-small-business-growth>

⁴⁷ Lavagnon A. Ika and Jennifer Donnelly, "Success conditions for international development capacity building projects," *International Journal of Project Management*, vol. 35, no. 1, January 2017, pps 44-63. <https://www.sciencedirect.com/science/article/abs/pii/S0263786316301855>

Radmila Miković, Dejan Petrović, Marko Mihić, Vladimir Obradović, and Marija Todorović. "The integration of social capital and knowledge management – The key challenge for international development and cooperation projects of nonprofit organizations," *International Journal of Project Management*, vol. 38, no. 8, 2020, pps. 515-533. <https://www.sciencedirect.com/science/article/abs/pii/S0263786320300569>

organized fashion, and made available prior to the field work. Questions like changes in household income, which admittedly can be quite difficult to measure, might have been addressed via some proxies. In the DR as elsewhere, most farmers don't keep accurate production records or financials, sometimes related to a lack of education or training but often linked to local customs and norms, as well as fear of increased taxes. As has been done for decades however in other fields such as microfinance or nutrition, there are sometimes proxies for income (such as ownership of cellphones, eating patterns, home improvements, farm improvements) that can be tracked to complement perception data. In this report, the best that could be done was a self-reported perception of "my income increased" or "my income did not increase" due to participation in project activities. The same goes for changes in agricultural practices. Other data such as that related to milk quality or prices, would be valuable for the private sector. Likewise, the registry of producers that the project now possesses, after the work to clean and confirm producer contact information, is something that surpasses what the Ministry of Agriculture has. The Inter-American Development Bank has approved a loan to finance an agricultural census; the Dominican Republic will be borrowing millions of dollars to pay for this census. USDA just spent millions of dollars for a project that gathered data that is relevant to this census.

Going forward, it is recommended to develop a plan by which data collected by the SAFE project (and ideally other development projects) can be pooled and shared with government counterparts, and that lessons learned, and systems developed to track data contribute to the efforts of those institutions to develop and maintain their own systems. Of course, this must be done without violating data privacy principles. The SAFE project did take a step in the direction, by transferring SAFE transferred ownership of the project's PROGIS database to DIGEGA in March 2021.

As mentioned earlier in the section on value chains, and related to the programmatic recommendations that follow, value chain data should be gathered and made available to stakeholders in order to encourage improved performance, competition, reward productivity and quality, increase awareness about how good hygiene and other practices relate to quality and price. Whether or not quality price premiums are being charged is a valuable piece of information that should also be tracked. The days of data serving solely for the project to manage its own activities or report to the client are over. Data is ultimately one of the most valuable assets a program can leave behind, and great care should be taken to consider the best way to do this that contributes to overall health and transparency of a system.⁴⁸

Good data management is considered a best practice, not to be confused with spending money on software. The data framework and use case should drive information technology choices rather than the other way around⁴⁹. As can be seen by the fact that at the end the SAFE project ended up with an adequate system using Microsoft Access and PowerBI with SharePoint for storage and sharing, there are more often than not perfectly adequate off-the-shelf systems available for data storage and management.

⁴⁸ Cameron Neylon. "Compliance Culture or Culture Change? The role of funders in improving data management and sharing practice amongst researchers." *Research Ideas and Outcomes*, vol 3, October 19, 2017. <https://riojournal.com/articles.php?id=21705>

⁴⁹ Office of Management and Budget (OMB). "Monitoring and Evaluation Guidelines for Federal Departments and Agencies that Administer United States Foreign Assistance," January 11, 2018. <https://www.whitehouse.gov/wp-content/uploads/2017/11/M-18-04-Final.pdf> and IFAD. "A Guide for Project M&E," 2002. <https://www.ifad.org/documents/38714182/39723123/toc.pdf/e7c718e2-56b9-4f60-b404-3f31448a38a2> pp. 6-7.

3) Impact and targets are not the same

The second SAFE project team naturally gravitated towards the activities that would have the greatest impact, because they were directly related to the higher-level objectives (i.e., exporting beef and increasing milk productivity). However, as discussed above they were limited by a number of factors, some related to project design and others to how international development projects are typically administered. In other words, by the new team took their positions, there was no way to question whether the project should be working in eleven provinces; no particular incentive to focus on areas of the value chain where the greatest leverage, or impact, could be achieved, and no mechanism set up to engage with buyers in a way that would bring a “demand-pull” logic into the change process. Table 16 below summarizes the areas where implementation led to impact and includes supporting data; offers comments on what could have been done (or can still be done) to enhance that impact, and also identifies the areas where impact was not achieved.

Table 16. Successful vs. Unsuccessful Activities and Recommendations for Future Projects

Successful activities	Supporting data	Recommendations
Livestock Field Schools	78% of producers surveyed said the livestock field schools were beneficial for them.	Finding sustainable financing sources for this activity (such as buyer contributions), and mainstreaming methodology with MEGALECHE in addition to the private extensionists.
Private Extension	Surveys show a 15% higher productivity for beneficiary producers than the comparison group. This is in line with gains shown by farm visit data. Banks mentioned they considered the presence of high-quality extension services as a factor that reduced their credit risk.	More work with cooperatives to institutionalize the private extension services, and perhaps develop a system whereby cooperatives and/or members who provide/use these extension services can access funds. More discussion with government actors on how to organize extension and ensure the right incentives.
Selected grants to local organizations that reinforce the practices taught in livestock field schools.	300+ milking parlors built with project financing. Inputs for producers. Grants supporting international TA (e.g., artificial insemination and breeding) and private extensionists (80%-20% cost sharing with POs)	See recommendations below on grant and reimbursable funding. Find ways to allocate international TA effectively by responding directly to specific producer needs and supporting the adoption and follow up of new learning with producers.
Developing a Workaround for LAVECEN	Interviews and visits to laboratories; project records.	Possible <i>ad hoc</i> responsive support to encourage continued upgrading of local capacity. Important that this be done without taking on the large institutional issues that still exist.

Support to DIGEMAPS	DIGEMAPS own ability to tell their story is exceptional.	Review support to software for inspectors. A good initiative but appears back-office centric (a common issue with e-government software). Will require testing and iteration to ensure the process for the enterprises is streamlined.
Support to Slaughterhouses (including mock audits, grants, HAACP training)	Two participating slaughterhouses (AGROCARNE and MERCARNE) passed the mock audit for FSIS Equivalence conducted by TAMU.	Network with Dominican Ambassador in Washington (as is being done) to make sure FSIS conducts the official audit soon.
Market Study (Puerto Rico)	Conducted by ASOCARNE President Enrique de Castro and Professor Greg Sullivan of Texas A&M University (TAMU).	Conduct additional market studies, and follow up to what was done.
Activities that were not successful	Supporting data	Recommendations
Access to Finance	Only 41% of producers and 63% of processors we surveyed said they had access to finance after participation in project activities.	Needs to be designed in coordination with CONALECHE, <i>Banco Agrícola</i> , and private financial institutions. One intervention which may have potential would be to pilot financial products with savings and loan cooperatives linked to the associations of producers and buyers of milk. In partnership with private banks or microfinance institutions, technical assistance could be provided to one or two savings and credit cooperatives that want to work on the issue, financing product startup costs until break-even is reached.
Support to LAVECEN	Interview notes and project records.	It may be better not to engage with LAVECEN until the institutional issues have been resolved. Note that IDB is planning comprehensive support to LAVECEN.
Monitoring and Evaluation (M&E)	Every interview with project staff referenced the issues with M&E.	Identify possible conflicts and gray areas among multiple project objectives and clarify them. Allow for customization of results frameworks and ground-truthing with external stakeholders. Develop a value chain data framework with indicators that make sense to track from the perspective of local stakeholders; from those derive project-level data points, and only after that develop

project-level targets and indicators. Budget for data collection about the value chain at the time of the baseline, the mid-term, and the final evaluation. Ensure project indicators adequately reflect changes in farming practices resulting from specific interventions, for example activities related to genetics and animal reproductive health, milk quality, animal feed, animal health, and farm management.

The path forward

Below are more general recommendations that build on insights and ideas shared during interviews by local value chain stakeholders. These apply more broadly to the development of the value chain and need not be associated with the particular activities that were implemented by SAFE.

Recommendations for future projects in this area fall under five general themes:

1. Collect data all along the value chain as a baseline for the project and for partners.
2. Continue to support livestock field schools and private extension services - with a partner (such as a milk buyer) that provides resources and commits to continue efforts.
3. Continue light support to beef value chain and other potential exporters.
4. Use grant funds to catalyze specific, project-based investment opportunities in both value chains. Meanwhile, encourage the private sector to offer financial services.
5. Lead a collective visioning process involving all stakeholders.

Below are some additional thoughts about how, and in what sequence, to implement the recommendations.

1. Start with lean team and budget and add people and resources as the project proves itself. Maintain the ability to engage consultants and organizations in the provinces, making the project more field centered. Do not personalize project performance, nor underestimate the importance of institutional partnerships and the effort and skills it takes to maintain them.
2. Conduct a thorough value chain analysis including quantitative data on price points, number of enterprises, etc., that will serve as the scaffolding to conceive and organize all interventions. Data collected will be systematized and maintained for tracking over the course of interventions and used to render tangible and quantifiable the coordination of, and synergies with, corresponding interventions by government agencies and other donors.
3. Convene sector vision workshops to design a systems approach to value chain interventions (one for dairy and one for beef). All stakeholders must be represented, including producers, processors, POs, businesses, government, and all active (and inactive but potential) donors. This is the key for ensuring sustainability. The first workshop could be national, followed by provincial level workshops

in up to three provinces where uptake has been high for the new practices, such as: Puerto Plata, Monte Plata, Duarte, Santiago Rodriguez, and Dajabón⁵⁰. The sector vision workshops could serve as a platform for local institutions to make long-term commitments towards the overall vision.

Interventions to be discussed and iterated through the sector vision workshops could include:

- Systematic outreach to buyers and development of a demand-pull strategy for each sub-sector (beef and dairy).
- Work with government to simplify government procedures that affect the livestock sector (e.g., procurement, food safety), and review and reform of procedures and regulations related to cooperatives and associations.
- Continued support for successful interventions from SAFE – perhaps organized differently – including:
 - a) expansion of private extensionists (requires conversation with government about role of MEGALECHE, and with government, donors, and buyers about ways to finance extension services through matching grants or other means)
 - b) Continuation of livestock field school (LFS) methodology, and expansion of its use throughout the country (potential for CONALECHE to support and MEGALECHE to adopt as well).
- Upgrading the dairy value chain to build on the successful interventions of the SAFE project:
 - a) Support for improved pastures, livestock feed, and equipment.
 - b) Continued support for genetic improvements and artificial insemination practices building on the work done by the SAFE project.
 - c) Strengthen transport infrastructure, especially cold storage, to prevent milk quality degradation between farm and MCC.
 - d) Address need for access to electricity, including provision of solar panels.
- Continued light support to the beef value chain to build on success of achieving Equivalence:
 - a) Strengthening of the primary link in the beef value chain to ensure continued ability to export, including continued progress on productivity, health, genetics, and traceability.
 - b) Implement an automated meat inspection management system: while not required for Equivalence this will streamline processes that are currently conducted manually allowing for greater focus on other areas of need (this is an initiative which has already been proposed by the project).
 - c) Include the cost of the official meat analysis in the national budget, so DIGEMAPS can cover both microbiology and chemical residue tests.
 - d) Examine potential for a national fund for the beef sector, similar to CONALECHE for the milk sector.

4. Develop a small grants program that minimizes administrative burden but requires proactive goal setting and resource contributions from organizations seeking grants. Prior to grant announcements

⁵⁰ Similarly, if one were to turn back time to the beginning of the project, the recommendation would have been to concentrate in provinces with significant dairy activity where the livestock field schools could have served as a major proof-of-concept and then expanded to the rest of the country. Those provinces could have been, for example: Dajabon, Santiago Rodriguez, Puerto Plata and San Juan.

or awards, develop a set of common-sense criteria in meetings with value chain stakeholders, and ensure a communications strategy is in place so that potential beneficiaries are aware of them and that they are easily accessible. One method that has worked well in other programs is to ask participants to make commitments in each visioning workshop, and then use grant funding to support -- via partial funding -- initiatives that stakeholders have committed to. In this system the scope is less important than the commitment -- i.e., even things that might seem to be slightly out of scope could be worth supporting in a minor way, in order to build stakeholder commitment and help "crowd in" other actors, funders, and lead to achievements⁵¹. The lean team should recruit other donors, including corporate value chain actors, to contribute to the fund, or to offer their own branded support for activities through a secretariat that is set up to follow through on the workshops and housed in a local institution. The feasibility of including reimbursable funds (i.e., a blended finance fund) in addition to grants should be explored. Any grants provided should have a clear and transparent selection protocol and clear incentives for recipients to self-finance or match contributions so that activities do not become dependent on the long-term continuation of grants. An additional possibility mentioned above, could be the creation of a pilot rotating fund in conjunction with an association and a financial institution like ADEMI or ADOPEM and give them technical assistance and funding until it has achieved a break-even point that proves sustainability.

5. As has been discussed throughout this report, the SAFE project had two overarching objectives related to improving the performance of the livestock sector in the Dominican Republic; one in the beef value chain (increased exports through achieving FSIS equivalence), and the other in the dairy value chain (increasing productivity as measured by liters/cow/day). While these two high level indicators were clearly tracked, the more detailed indicators used to track progress did not provide supporting evidence. The vast majority of indicators focused on training, assessments, and meetings. Changes in farming practices were measured, but only in regard to farm management practices including governance, administration, and financial management.

A set of indicators precisely tailored to the interventions is recommended for future projects (or would have been beneficial if integrated during mid-course adjustments to this project). For example, the livestock field schools specifically targeted a set of good practices, including genetics and animal reproductive health, milk quality, animal feed, animal health, and farm management. Some examples of indicators that could have been tracked in order to better capture changes in key farming practices related to the overarching objectives of the project are: 1) % of dry cows per farm, 2) % of pregnant cows per farm, 3) % of milking cows; 4) kilograms (kg) beef per animal per day; 5) kg of dry mass per animal; 6) increased profitability and household income.

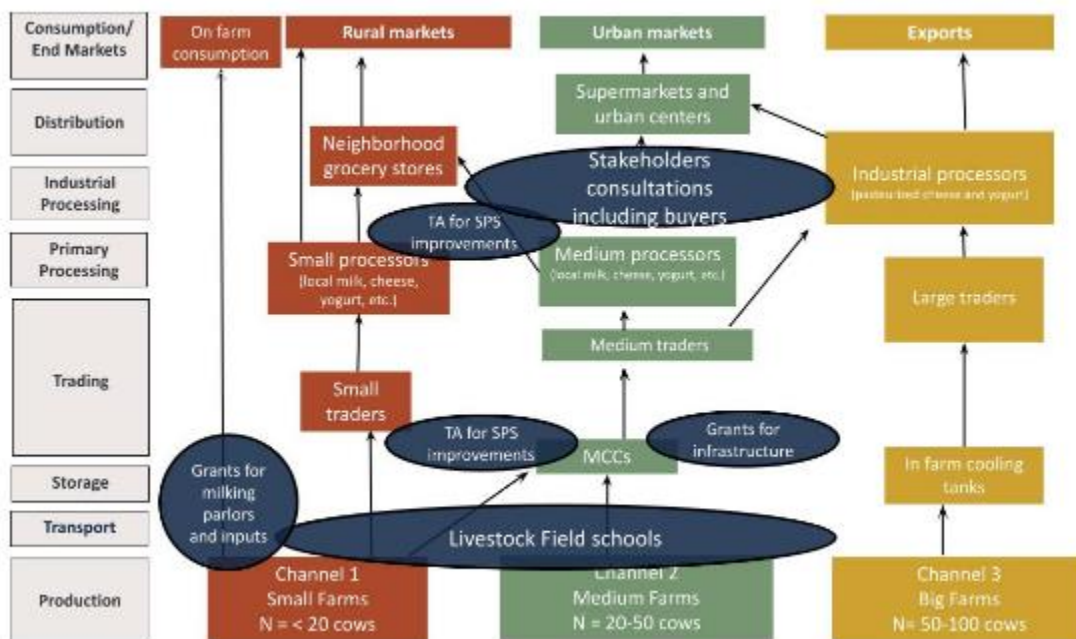
Figure 21 indicates points in the value chain (indicated in blue ovals) where potential activities listed above can be included in future projects.

⁵¹ FHI360 for USAID Hygiene Improvement Project. *Whole System in the Room Strategizing Tools*. Retrieved from - <http://hip.fhi360.org/file/29602/WSR%20Strategizing%20Tools.pdf>

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Figure 21. Potential Activities for Future Projects





DOMINICAN REPUBLIC

Food for Progress FY 15 Safe Agriculture/Food
Export (SAFE) Project

Annexes - Final Evaluation

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Annex 1: Indicator Table

No.	Indicator	Project Goal	Fiscal Year (FY)					Progress to date	% Progress towards goals	Progress (100% max)
			2016-2017	2017-2018	2018-2019	2019-2020	2020-2021			
1.00	Number of value chain actors participating in the Seal of Quality	300	52	75	103	108	1	339	113.0%	100.0%
1.10	Number of products using the Seal of Quality in their marketing	25	0	0	0	0	0	0	0.0%	0.0%
1.20	Number of people reached through the Seal of Quality public information campaign	800000	253	0	32330	50986	0	83569	10.5%	10.4%
2.10	Number of extension agents trained in improved agriculture techniques and technologies	280	53	87	102	114	4	360	128.6%	100.0%
2.20	Number of grants provided to businesses (POs, dairy processors, and meat processors) to establish or improve an extension system	15	1	1	23	6	0	31	206.7%	100.0%
2.30	Value grants provided to businesses (POs, dairy processors, and meat processors) to establish or improve an extension system	270000	14687	48832	237515	257055	0	558089	206.7%	100.0%
3.10	Volume of milk supplied (million liters) by farmers to USDA supported milk collection centers	80	0	50	53	67	56	226	282.5%	100.0%
3.20	Number of dairy farmers supplying grade "A" milk to USDA supported milk collection centers	1100	0	17	34	857	114	1022	92.9%	92.9%
3.30	Number of dairy producer association members trained in milk collection center establishment/management	320	124	546	390	214	79	1353	422.8%	100.0%
4.10	Number of policies, regulations and/or administrative procedures in each of the following stages of development as a result of	6	0	0	0	11	0	11	183.3%	100.0%

USDA assistance (Stage 5) (FFPr indicator 12)										
4.20	Number of beef Regulatory Policy and Regulatory Framework meetings for public debate and/or consultation with stakeholders on the proposed new or revised policy/regulation/administrative procedure	87	32	55	106	35	0	228	262.1%	100.0%
4.30	Number of new markets to which beef is exported	1	0	0	0	0	0	0	0.0%	0.0%
4.40	Number of agreements signed (Contracts, MOUs, etc.) between beef or dairy exporters and buyers in the US as a result of USDA assistance	14	0	0	0	0	0	0	0.0%	0.0%
4.50	Number of assessments completed of GoDR beef food safety regulations and systems	1	1	0	2	0	0	3	300.0%	100.0%
4.60	Number of training sessions in trade policy analysis and advocacy provided for individuals	8	0	3	4	1	0	8	100.0%	100.0%
4.70	Number of individuals trained in trade policy analysis and advocacy	200	0	312	41	38	0	391	195.5%	100.0%
5.01	Number of private sector institutions that are providing monetary or in-kind resources in support of agriculture productivity (e.g. in areas including research, market information, agricultural inputs, etc.) as a result of USDA Assistance	60	0	0	0	60	0	60	100.0%	100.0%
5.02	Value of private sector investment/resources supporting agriculture research/extension that is consistent with government priorities as a result of USDA assistance	712320	0	0	0	3219735	0	3219735	452.0%	100.0%
5.03	Number of firms who are accessing credit through formal	40	0	0	0	131	0	131	327.5%	100.0%

	financial products as a result of USDA assistance									
5.04	Number of individuals receiving financial services as a result of USDA Assistance (FFPr Indicator 4) (Female)	920	0	0	0	1336	0	1336	145.2%	100.0%
5.05	Number of individuals receiving financial services as a result of USDA Assistance (FFPr Indicator 4) (Male)	5215	0	0	0	7456	0	7456	143.0%	100.0%
5.06	Number of individuals receiving financial services as a result of USDA Assistance (FFPr Indicator 4) (joint)	6135	0	0	0	8792	0	8792	143.3%	100.0%
5.07	Number of jobs attributed to USDA assistance (FFPr indicator 15)	189	0	0	0	185	0	185	97.9%	97.9%
5.08	Number of jobs attributed to USDA assistance (FFPr indicator 15) (male)	145	0	0	0	145	0	145	100.0%	100.0%
5.09	Number of jobs attributed to USDA assistance (FFPr indicator 15) (female)	44	0	0	0	40	0	40	90.9%	90.9%
5.10	Number of training sessions in accessing financial services for post-harvest technologies provided to firms	8	24	23	74	48	3	172	2150.0%	100.0%
5.11	Value of Loans provided as a result of USDA Assistance (FFPr Indicator 6) (male)	1677375	0	0	0	958141	0	958141.1	57.1%	57.1%
5.12	Value of Loans provided as a result of USDA Assistance (FFPr Indicator 6) (female)	1118250	0	0	0	72138	0	72137.78	6.5%	6.5%
5.13	Value of Loans provided as a result of USDA Assistance (FFPr Indicator 6)	2795625	0	0	0	1032636	0	1032636	36.9%	36.9%
5.14	Number of Loans Disbursed as a result of USDA Assistance (FFPr Indicator 5)	6143	0	0	0	131	0	131	2.1%	2.1%
6.01	Number of milk collection centers with USDA support using improved equipment to collect and chill milk	50	0	19	24	17	0	60	120.0%	100.0%
6.02	Number of grants provided to dairy producer	33	0	20	8	13	0	41	124.2%	100.0%

	groups/processors to establish or improve milk collection centers									
	Value of grants provided to dairy producer groups/processors to establish or improve milk collection centers									
6.03		264000	0	172549	45034	66874	0	284457	107.8%	100.0%
	Number of grants provided to beef processors to improve beef processing infrastructure related to SPS control									
6.04		5	0	1	4	0	1	6	120.0%	100.0%
	Value of Grants provided to beef processors to improve beef processing infrastructure related to SPS control									
6.05		50000	0	16780	72489	0	5136	94405.43	188.8%	100.0%
	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (total)									
6.06		13500	4033	5645	4766	3567	216	18227	135.0%	100.0%
	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (female)									
6.07		3375	1024	1380	1249	872	33	4558	135.1%	100.0%
	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (male)									
6.08		10125	3009	4265	3517	2707	183	13681	135.1%	100.0%
	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (new)									
6.09		14017	4033	3574	1981	777	15	10380	74.1%	74.1%
	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (continuing)									
6.10		9000	0	2071	2785	2802	201	7859	87.3%	87.3%

6.11	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (farmers)	13500	3137	4340	3597	2658	210	13942	103.3%	100.0%
6.12	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (people in firms)	250	305	401	324	333	4	1367	546.8%	100.0%
6.13	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (government)	200	142	221	178	161	2	704	352.0%	100.0%
6.14	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (FFPr Indicator 16) (civil society)	40	507	747	692	478	2	2426	6065.0%	100.0%
7.01	Number of improved beef and dairy production demonstrations established or improved with USDA support.	175	50	66	34	45	8	203	116.0%	100.0%
8.10	Number of international trade missions conducted with host country ag exporters and foreign buyers	4	0	2	1	2	0	5	125.0%	100.0%
8.20	Number of value chain linkage meetings held between buyers/sellers in the dairy and beef sector	10	12	9	27	8	0	56	560.0%	100.0%
8.30	Number of individuals benefitting indirectly from USDA-funded agricultural productivity interventions (FFPr indicator 18)	59400	12113	17415	13610	19273	970	63381	106.7%	100.0%
8.40	Volume of Commodities (metric tons) sold by Project beneficiaries (FFPr Indicator 14)	671650	0	51950	55636	74626	89000	271211.9	40.4%	40.4%
8.50	Number of events supported by USDA aimed at promoting private-public partnerships for improving beef and dairy	8	5	4	18	23	0	50	625.0%	100.0%

	development at the farm, processor and exporter.									
8.60	Value of sales by Project beneficiaries (FFPr Indicator 13) (DR\$ Millions)	779.9	0	813	1113	480	677	3083	395.3%	100.0%
9.10	Number of private sector dairy extension agents supporting farmers in partnership with government extension services	92	48	40	15	60	2	165	179.4%	100.0%
9.20	Value of new public and private sector investment leveraged as a result of USDA assistance (FFPr Indicator 9)- (Private)	1000000	0	0	0	2874361	0	2874361	287.4%	100.0%
9.30	Number of public-private partnerships formed as a result of USDA assistance (FFPr Indicator 8)	20	0	0	0	40	0	40	200.0%	100.0%
10.01	Number of dairy farmers using improved milking and milk handling techniques as a result of USDA assistance	7000	90	269	1011	2663	0	4033	57.6%	57.6%
10.02	Number of dairy processor staff trained in SPS measures	288	83	148	295	85	0	611	212.2%	100.0%
10.03	Number of beef processing facilities audited for compliance with SPS standards	14	3	6	5	2	0	16	114.3%	100.0%
10.04	Number of beef processors demonstrating upgraded SPS control systems as a result of USDA assistance.	5	1	3	5	3	0	12	240.0%	100.0%
10.05	Number of beef processor staff trained in SPS standards and systems	42	1	180	50	137	0	368	876.2%	100.0%
10.06	Number of training sessions in milking and milk handling conducted for dairy farmers	400	212	292	205	91	4	804	201.0%	100.0%
10.07	Number of milk producers trained in milking and milk handling	10000	1545	2131	1716	912	22	6326	63.3%	63.3%
10.08	Number of dairy processing facilities audited for compliance with SPS standards	30	2	13	17	16	16	64	213.3%	100.0%
11.01	Number of business plans produced for beef and dairy	3750	0	0	0	791	0	791	21.1%	21.1%

	production with USDA assistance									
	Number of individuals who have applied improved farm management practices (i.e. governance, administration, or financial management) as a result of USDA assistance (FFPr Indicator 3) (people in firms)									
11.02		738	79	121	128	126	3	457	61.9%	61.9%
	Number of individuals who have applied improved farm management practices (i.e. governance, administration, or financial management) as a result of USDA assistance (FFPr Indicator 3) (male)									
11.03		2767	1064	1737	1945	2007	110	6863	248.0%	100.0%
	Number of individuals who have applied improved farm management practices (i.e. governance, administration, or financial management) as a result of USDA assistance (FFPr Indicator 3) (female)									
11.04		1108	320	545	646	491	5	2007	181.1%	100.0%
	Number of individuals who have applied improved farm management practices (i.e. governance, administration, or financial management) as a result of USDA assistance (FFPr Indicator 3) (people in government)									
11.05		175	74	124	116	83	2	399	228.0%	100.0%
	Number of individuals who have applied improved farm management practices (i.e. governance, administration, or financial management) as a result of USDA assistance (FFPr Indicator 3) (total)									
11.06		3875	1384	2282	2591	2498	115	8870	228.9%	100.0%
	Number of individuals who have applied improved farm management practices (i.e. governance, administration, or financial management) as a result of USDA assistance (FFPr Indicator 3) (farmers)									
11.07		3690	1305	2161	2463	2364	110	8403	227.7%	100.0%
	Percentage increase in the average number of liters produced per cow per day									
12.01		50	0	0	3	9	0	12	24.0%	24.0%

12.02	Total number of individuals benefitting directly as a result of USDA Assistance (FFPr Indicator 17) (continuing)	8599	0	3355	3439	5805	320	12919	150.2%	100.0%
12.03	Total number of individuals benefitting directly as a result of USDA Assistance (FFPr Indicator 17) (Female)	4011	1233	1776	1439	985	46	5479	136.6%	100.0%
12.04	Total number of individuals benefitting directly as a result of USDA Assistance (FFPr Indicator 17) (Male)	10395	3612	5190	4005	6769	342	19918	191.6%	100.0%
12.05	Total number of individuals benefitting directly as a result of USDA Assistance (FFPr Indicator 17) (new)	5807	4845	3611	2005	1949	88	12498	215.2%	100.0%
12.06	Number of farmers in the dairy and/or beef sector making farm decisions based on economic considerations or analysis as a result of USDA assistance	3690	0	0	0	11150	0	11150	302.2%	100.0%
12.07	Number of hectares under improved techniques or technologies as a result of USDA assistance. (FFPr Indicator 1), (Continuing)	2600	0	338	2285	3275	160	6059.02	233.0%	100.0%
12.08	Number of hectares under improved techniques or technologies as a result of USDA assistance. (FFPr Indicator 1) (new)	4800	571	5777	2411	3943	24	12725.79	265.1%	100.0%
12.09	Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (male)	8348	465	1345	3892	3266	160	9128	109.3%	100.0%
12.10	Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (new)	8447	503	939	2830	1336	2	5610	66.4%	66.4%
12.11	Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (continuing)	3479	0	503	1358	2223	163	4247	122.1%	100.0%

12.12	Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (female)	3578	38	97	296	292	5	728	20.4%	20.3%
12.13	Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (other-animal health)	10800	182	567	1967	1457	120	4293	39.8%	39.8%
12.14	Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (other breed genetics)	2700	93	305	1641	1428	115	3582	132.7%	100.0%
12.15	Number of individuals who have applied new techniques or technologies as a result of USDA Assistance (FFPr indicator 2) (other-animal feed)	10800	478	816	2508	1272	117	5191	48.1%	48.1%
12.16	Number of private enterprises, producer organizations, water user's associations, women's groups, trade and business associations, and community based-organizations (CBOs) that applied improved techniques and technologies as a result of USDA Assistance (FFPr Indicator 7) (Continuing)	54	0	38	27	9	3	77	142.6%	100.0%
12.17	Number of private enterprises, producer's organizations, water user's associations, women's groups, trade and business associations, and community based-organizations (CBOs) that applied improved techniques and technologies as a result of USDA Assistance (FFPr Indicator 7) (joint)	54	38	66	48	17	3	172	318.5%	100.0%
12.18	Number of private enterprises, producer organizations, water user's associations, women's groups, trade and business associations, and community based-organizations (CBOs) that applied improved techniques and technologies as a result of	21	38	28	21	8	0	95	452.4%	100.0%

USDA Assistance (FFPr Indicator 7) (New)										
	Number of private enterprises, producer organizations, water user's associations, women's groups, trade and business associations, and community based-organizations (CBOs) that applied improved techniques and technologies as a result of USDA Assistance (FFPr Indicator 7) (Producer Orgs)									
12.19		38	38	26	21	8	3	96	252.6%	100.0%
12.20	Percentage increase in volume of grade "A" milk sold to processors by USDA supported milk collection centers	50	0	3	9	15	9	36	36.0%	72.0%

Annex 2: Analysis of Characteristics of Beneficiary and Comparison Groups

Because of study limitations, differences in outcomes between the participants and the comparison group cannot be attributed to project activities. Data collection included a comparison group of producers that were eligible to participate in the project but did not receive any technical assistance or interventions. The beneficiary and comparison group lists were drawn from the same two sources: SAFE beneficiary list developed since project inception, and the list of suppliers of the milk collection centers. It is important to note that prior to sampling, data on farmers' provinces was available but farm size was unavailable. Due to this, the evaluation team conducted analysis to ensure that both groups were not statistically significantly different. The comparison group was similar to the beneficiary in that the difference between beneficiary farmers and comparison group in producer type, region, gender, land use, and number of cows milked was nominal. The tables below show the distribution of provinces, sex, and type of products produced in the comparison and beneficiary groups. The following significance tests below examine the difference in means between the comparison group and beneficiary group in their total land use (*tareas*) and number of cows milked. The tests do not find any statistically significant difference in means. This means that the null hypothesis that the means of both groups is similar cannot be rejected and thus, the difference between the groups on these metrics (total land use and number of cows milked) can be regarded as nominal and statistically insignificant. However, because the beneficiary group was included in the project due to their willingness to participate, this may have introduced unobservable selection bias and affected the outcomes of the project activities.

Regional Distribution of Survey Respondents (%)				
Provinces	Beneficiary Group (%)	Comparison Group (%)	Beneficiary Group (count)	Comparison Group (count)
Dajabon	21	21	67	42
Puerto Plata	14	7	46	14
San Juan	14	16	45	33
Santiago Rodriguez	12	7	38	15
Monte Plata	9	13	30	26
La Altagracia	6	9	20	18
Duarte	5	5	16	10
El Seibo	5	4	16	9
Hato Mayor	4	2	14	4
Independencia	3	4	10	9
Maria Trinidad Sánchez	2	2	7	5
Santo Domingo	1	1	3	2
Espailat	1	1	2	2
Hermanas Mirabal	0	0	1	0
Montecristi	0	4	1	8
Samaná	0	0	1	1
Valverde	0	1	1	2
Elias Pina	0	0	0	1
Total	100	100	318	201

Sex Distribution of Survey Respondents (%)				
Sex	Beneficiary Group (%)	Comparison Group (%)	Beneficiary Group (count)	Comparison Group (count)
Male	90.2515723	86.0696517	287	173
Female	9.74842767	13.9303483	31	28
Total	100	100	318	201

Producer Type (%)				
Producer Type	Beneficiary Group (%)	Comparison Group (%)	Beneficiary Group (count)	Comparison Group (count)
Milk	74.8	69.2	238	139
Meat	1.9	8.0	6	16
Milk and Meat	23.3	22.9	74	46
Total	100	100	318	201

t-Test: Two-Sample Assuming Unequal Variances	Total Land Use (tareas)		t-Test: Two-Sample Assuming Unequal Variances	Number of Cows Milked	
	Beneficiary Group	Comparison Group		Beneficiary Group	Comparison Group
Mean	566.352564	498.770408	Mean	19.4256757	20.9681564
Variance	1338899.62	621835.901	Variance	456.774118	730.633194
Observations	312	196	Observations	296	179
Standard Deviation	1157.1083	788.565724	Standard Deviation	247.115215	243.345334
Minimum	0	0	Minimum	0	0
Maximum	12000	8000	Maximum	2550	1700
Range	12000	8000	Range	2550	1700
Hypothesized Mean Difference	0		Hypothesized Mean Difference	0	
df	503		df	311	
t Stat	0.78225238		t Stat	-0.6503725	
P(T<=t) one-tail	0.21721718		P(T<=t) one-tail	0.25796591	
t Critical one-tail	1.64788861		t Critical one-tail	1.64976792	
P(T<=t) two-tail	0.43443435		P(T<=t) two-tail	0.51593182	
t Critical two-tail	1.96469141		t Critical two-tail	1.96762113	
The p-value two-tail (highlighted) is 0.43. Here, because the p-value is greater than 0.05 (95% confidence level), we cannot reject the null hypothesis that the means are similar.			The p-value two-tail (highlighted) is 0.51. Here, because the p-value is greater than 0.05 (95% confidence level), we cannot reject the null hypothesis that the means are similar.		

Annex 3: Success Stories

Livestock Field School Methodology

For a long time, the livestock sector in the Dominican Republic (DR) has suffered from lack of know-how and access to technical assistance and best practice trainings. This has led to lower levels of milk productivity and milk quality in the DR compared to peer countries in the region. To address these challenges the U.S. Department of Agriculture's Safe Agriculture Food Export (SAFE) project initiated the livestock field school (LFS) methodology, combining hands-on technical assistance for farmers with trainings on farm management and other subjects.

Every two weeks, groups of farmers gathered together at "demonstration farms" – selected from among those of the participants – to learn through practical and shared experiences, facilitated by SAFE project staff or extensionists supported through the project. LFS uses an 80% hands-on and 20% theory approach, combined with *programa de coinversión productivo* (PCP) provided through the SAFE project's grants program to provide farmers with necessary inputs through a package of: pasture seeds, fertilizers, jerrycans, *Empresa Brasileira de Pesquisa Agropecuária* (EMBRAPA) designed kits (a Brazilian-designed unit used to clean teats and improve hygiene during milking), and other inputs. Training topics included farm management, milking techniques, hygiene, breeding, and other topics related to livestock best practices.

Based on a methodology first developed by the Food and Agriculture Organization 30 years ago, the LFS methodology was adopted by the SAFE project to the Dominican context. The final evaluation of the project, by external evaluators Just Results, found that the LFS approach has been a major achievement in the eyes of farmers, associations, cooperatives, and others active in the livestock value chain.

Farmer with his cows in Dajabo



Increased milk productivity for participating farmers was a key metric of success. Farmers and extensionists alike thank the SAFE project's LFS methodology for major gains in this area. Studies conducted by the project during implementation, show that farmers applying improved technologies increased milk production by an average of 23% from 5.8 liters per cow per day (lcd) to 6.38 lcd, compared to those farmers not applying technologies (sample size of 1,046). Final evaluation found similar improvements, with farmers participating for longer periods of time often seeing even larger increases in productivity, of 50% or more.

Farmers surveyed for the final evaluation overwhelmingly endorsed the LFS methodology and associated technical assistance, and focus groups done with farmers and extensionists likewise emphasized the

impact of LFS on improvements in milk productivity and quality. The evaluation survey showed that 78% of farmers said the livestock field schools were beneficial for them, with 75% crediting the SAFE project for increased productivity for their farm. Farmers participating in the SAFE project also perceived that project activities directly led to increased household incomes (71%) and increased sales (73%).

Continued support for private extensionists through associations and cooperatives will be critical for LFS to be maintained beyond the end of the SAFE project. There are also already discussions in MEGALECHE about implementing the LFS methodology for public sector extensionists on a country-wide basis as well. In any case, as ASOCARNE president Enrique Castro told the evaluation team: “the Livestock Field School methodology is here to stay.”

Private extensionists

Access to quality extension services has long been a challenge for the livestock sector in Dominican Republic (DR). Prior to the U.S. Department of Agriculture’s Safe Agriculture Food Export (SAFE) project, MEGALECHE – the government agency responsible for providing extension services for the livestock sector – often lacked capacity to meet farmer’s demand. This was in large part because MEGALECHE was the only provider of extension services in the DR, and thus had to carry the whole burden of demand since private extension services were non-existent.

While there was an attempt at introducing private extensionists to the DR several decades ago by the UN Food and Agriculture Organization (FAO), the SAFE project is generally perceived to have been the first program to introduce private extension services in the DR and the first program in many years to address the needs of the livestock sector at the level of the farmer.

The introduction of private extensionists has been well-received throughout the sector. Focus groups of farmers conducted by external evaluators, Just Results, for the final evaluation of the project shed light on the impact of the extensionists on milk productivity, quality, and adoption of livestock best practices. Farmers who participated in a focus group in Santiago Rodriguez called the SAFE project “the best seen in all these years in the northwest [provinces of DR],” in large part because of the

Private extensionists in San Juan



dedication of the private extensionists supported by the project and the accompaniment they provided through farm visits to help farmers as they adopted new techniques and technologies. A farmer focus group in Duarte reiterated this fact, saying that what set the SAFE project extensionists apart was the respect with which the farmers were treated and the valuable insights they brought which led to large improvements in productivity and quality.

Finding sources for long term financing for private extensionists will be a primary challenge for sustainable impact. Associations and farmers alike agree that that private extension services have provided immense benefits, well worth the cost of maintain their services after the end of the SAFE project. However, whether due to the COVID-19 pandemic or other factors, many associations and cooperatives have not yet begun supporting private extensionists on their own. Calculations done by the SAFE project team that the benefits from the increased milk productivity and quality as a result of the private extension services supported by the project should easily cover the costs of an association hiring one or more extensionists. As associations and other value chain actors find ways to take advantage of these gains in productivity and quality, private extension services and promise to be an important part the value chain for the foreseeable future.

Equivalence

The beef value chain in Dominican Republic (DR) has historically been characterized by informality, with most beef produced in the DR coming from small or medium sized farms. Since 1997 when the last beef exports ended, all beef produced in the DR has been consumed domestically. However, the beef sector has great potential to become a new source of exports for DR. The biggest barrier to date, has been the inability of the sector to meet US standards to qualify for exports to US, particularly with Puerto Rico which is a prime market for Dominican beef.

In this context, a primary goal of the U.S. Department of Agriculture's (USDA) Safe Agriculture Food Export (SAFE) project has been to help DR achieve equivalence with US food safety regulations under USDA's Food Safety and Inspection Service (FSIS). The baseline report conducted at the beginning of the SAFE project identified the primary obstacles to achieving FSIS Equivalence as the lack of government capacity to conduct inspections, laboratories that did not meet sanitary standards, and slaughterhouses capable of passing the FSIS food safety audit.

The SAFE project led the way on working with key government actors to solve these challenges. The SAFE project facilitated frequent meetings with the relevant government including *Dirección General de Ganadería* (DIGEGA) in the Ministry of Agriculture and *Dirección General de Medicamentos, Alimentos y Productos Sanitarios* (DIGEMAPS) in the Ministry of Health to develop procedures and protocols and build the capacity of staff to set the path towards a modern beef inspection system and the ability to achieve FSIS equivalence. Two of the slaughterhouses most prepared to meet the FSIS requirements, MERCARNE and AGROCARNE, also received extensive technical assistance from the SAFE project to complete course of action needed to achieve equivalence standards.

Feeding cattle at a farm in Hato Mayor



Two key challenges which the SAFE project helped solve were confusion of agency roles and lack of capacity of the government laboratory. These were resolved, with DIGEGA are responsible from the stage from farm to slaughterhouse and DIGEMAPS

responsible from the slaughterhouse entry to retail and export and for coordinating with FSIS. For the laboratories, the SAFE project, along with by *Organismo Internacional Regional de Sanidad Agropecuaria* (OIRSA), helped orchestrate a network of domestic laboratories and a laboratory in Honduras to conduct microbiological and chemical residue testing of samples. A deal was made with COPA airlines to transport the samples to Honduras, which was key for providing the cold chain transport necessary for preserving the samples at the right temperatures. Continued support from the SAFE project to acquire specialty lab equipment, in the first quarter of 2021, has led to the beginnings of a local chemical residue testing program which should eventually reduce reliance on sending samples to Honduras.

By early 2020, the equivalence process had advanced to the point that participating slaughterhouses were deemed ready for the USDA APHIS/FSIS audit. A mock-audit for the slaughterhouses was conducted by experts from Texas A&M University and concluded that all components of the system were ready for the FSIS audit. Unfortunately, the outbreak of the COVID-19 pandemic in March 2020 led to the indefinite postponement of the audit, but it is widely believed by experts and others in the sector that equivalence has been achieved and FSIS approval will soon follow, when the audit can be rescheduled. The key now, is to ensure DIGEGA and DIGEMAPS are ready to be responsive to FSIS when the time comes for the rescheduled audit. Then it is only a matter of time before Dominican beef exports are making their way to international markets again.

Health and safety in beef processing

Lack of good sanitary practices and application of Hazard Analysis and Critical Control Points (HACCP) systems has historically plagued the Dominican Republic's (DR) food safety regime and long been an obstacle to exporting beef from the country. Slaughterhouses and meat packaging plants commonly lacked a hot water supply for washing; lack of sufficient temperature control, few protocols for environmental management, and generally do not apply HACCP or control of critical points, despite it being mandated by government regulation.

As part of the U.S. Department of Agriculture's (USDA) Safe Agriculture Food Export (SAFE) project's goal of helping DR achieve equivalence with US food safety regulations to allow beef exports to Puerto Rico, activities to enhance food safety practices in Dominican slaughterhouses have been front and center.

Agricultural experts from Texas A&M University, from the SAFE project, played a key role in the creation of a seven-month 'critical route' for three selected slaughterhouses to improve HACCP and sanitation standards. This technical assistance started in April 2018 and from the original three slaughterhouses, two which made substantial progress towards meeting the audit requirements for equivalence with U standards were selected for continued support: MERCARNE in Santo Domingo and AGROCARNE in La Romana.

The SAFE project led trainings for beef processing staff on Good Manufacturing Practices (GMP) specifically related sanitary measures and provided co-investments to purchase equipment to help slaughterhouses meet increased sanitary standards. Another key component was training staff from the *Direccion General de Medicamentos, Alimentos y Productos Sanitarios* (DIGEMAPS) in the Ministry of Health to develop procedures and protocols for a modern beef inspection system

During the COVID-19 pandemic, the SAFE project adjusted its technical assistance to equivalence actors

**Evaluation team leader Lara Goldmark
speaking with an employee at MERCARNE**



through collective efficiency schools (CES - a further adaptation of the farmer and livestock field school methodology) to a virtual format with 517 participants, including managers and staff of slaughterhouses and inspectors from DIGEMAPS. Key topics covered included HACCP, humane livestock practices, and sanitary measures and procedures.

The SAFE project's midterm project evaluation, in 2019, found that the project's activities had already created a "a culture of food safety that is growing and will continue to grow." Now with the final project evaluation of the project, the external

evaluators Just Results have reinforced this finding showing that the SAFE project's activities have "significantly improved the quality of sanitary practices and established new norms, a trend that stakeholders believe will be lasting." An upgraded beef inspection system and the expected achievement of equivalence with US sanitary standards for export should continue to reinforce these trends as the demand for high quality Dominican beef grows.

Milk quality/testing MCC upgrades

Low levels of milk quality in the Dominican Republic (DR) have been a primary culprit for a dairy sector which has fallen short of its full potential for many years. Poor milk quality can be caused at the level of the farm where the milk is produced, during transportation from the farm, or at the milk collection centers (MCCs) where farmers bring their milk to be aggregated and then sold to milk processor and distributors. Over the last 5 years, the U.S. Department of Agriculture's (USDA) Safe Agriculture Food Export (SAFE) project has been striving to address these challenges at each level.

Measuring milk quality can be challenging and a cause of controversy between farmers and MCCs. Farmers may produce grade “A” milk at the farm, but by the time it reaches the MCC it may have spoiled due to lack of proper cold storage during transport. In other cases some farmers may not take proper sanitary measures when milking their cows at the farm, and once the poor quality milk is brought to the MCC, it is aggregated with milk from other farms and one bad batch can ruin the quality of all the milk.

Farmers dropping off milk at an MCC in Dajabon



With the SAFE project’s support, 60 MCCs received assistance in implementing improved equipment to collect and chill milk. The SAFE project’s activities to strengthen MCC management and milk handling practices for participating MCCs and processors have been key to improving the milk quality sold by MCCs to processors and retailers. For the 60 MCCs supported by the project, a 36% increase in volume of grade “A” milk sold by the MCCs to processors was achieved through the SAFE project’s support.

The SAFE project also supports improvements of milk quality at the farm level, through technical assistance provided by project supported extensionists. This provides clear benefits for farmers who reach quality and are able to supply consistent volume, accessing the best prices. Grade A milk can fetch a premium price of up to \$0.56 (or RD\$32) per liter, compared to a price of \$0.47 (RD\$27) per liter for lower quality milk. One example, Association of Cattle Ranchers of Santiago Rodríguez (AGASAR) received a one-year matching grant from SAFE to support an extension agent who in turn provided technical assistance and training to the association’s producers, leading to an improvement in the association’s milk quality from Grade C to A, increasing the value of milk delivered to AGASAR’s MCC by 10% per liter.

While improvements in milk quality still need continued progress, the SAFE project has created helped create a new culture of food safety at MCCs and supported farmers and MCCs alike with technical assistance and equipment to improve milk quality. SAFE has also identified areas of continued need to be addressed, including continued infrastructure upgrades at MCCs, cold storage for transport of milk from farms to MCCs, and working together with dairy associations to continue to spread best practices in milk collection and handling to farmers, MCCs, and processor alike.

Annex 4.1: Tools (English)

Key Informant Interview Guide (KII) - PROGANA Staff and Partners

Basic Information

1. Interviewer (write “non applicable” if completed online): _____
2. Date: _____
3. Select how the survey was conducted:
4. Face-to-face
5. Remote
6. Name: _____
7. Organization: _____
8. Position: _____
9. Municipality: _____
10. Province: _____
11. Gender:
 - c. Male
 - d. Female

Project summary: challenges and achievements

1. Describe your vision of the PROGRANA project in a general way including the main desired results and the progress made towards achieving them.
2. What has been your relationship with the PROGANA project?
3. What have been some of the biggest challenges faced by the project? Were they approached? If so, how?
4. What have been some of the biggest challenges faced by the project? Were they approached? If so, how?
5. Were there any unexpected results (good or bad) attributable to the project? If so, please describe.

Project activities and implementation
--

- 6. What were the most and least successful activities? Why?**

- 7. Describe the organizational structure of the project. What have been the pros and cons of implementation?**

- 8. Over the course of the project, what adjustments, if any, were made to the process of implementation of the project? How did the Project respond to the findings of the mid-term evaluation?**

Sustainability of the project

- 9. In your opinion, which of the successful activities do you think are sustainable? Why?**

- 10. How were local actors involved in managing the project? (eg JAD, farmers' cooperatives and organizations, milk collection centers, slaughterhouses, local governments and civil society groups)**

- 11. Are the techniques and technologies easy to maintain locally? To what extent are local conditions for the control of these techniques and technologies guaranteed?**

- 12. Do you believe local governments will be able to achieve FSIS equivalency and continue to strengthen the food safety inspection system?**

Key Informant Interview (KII) guide – Producer Organizations (POs) and Businesses

Basic Information

1. Interviewer (write “non applicable” if completed online): _____
2. Date: _____
3. Select how the survey was conducted:
4. Face-to-face
5. Remote
6. Name: _____
7. Organization: _____
8. Position: _____
9. Municipality: _____
10. Province: _____
11. Gender:
 - e. Male
 - f. Female

Producer Organization (PO) Summary

1. Can you describe your role within the livestock value chain, including your interactions with producers and processors?
2. What are some of the biggest challenges you face as an organization in carrying out your mission?
3. What are some of the biggest challenges faced by producers and processors with whom you work?

PROGANA project overview

4. What has been your involvement in the PROGANA project?
5. Describe your view of the PROGANA project from a high level, including its main desired results and what progress has been made towards achieving them?

6. Do you feel like the project did a good job involving you and other similar organizations in the management of project activities?

Project sustainability

7. For the project activities in which your organization has been involved, do you believe they are sustainable following the end of the PROGANA project? Are the techniques and technologies used easy to maintain locally?
8. In your opinion, what will be the biggest challenge to continuing the achievement of equivalence for beef exports and milk quality standards?
9. Do you believe local government actors are likely to achieve FSIS equivalence and continue strengthening the food safety inspection system?

Key Informant interview (KII) guide – Government staff

Basic Information

1. Interviewer (write “non applicable” if completed online): _____
2. Date: _____
3. Select how the survey was conducted:
4. Face-to-face
5. Remote
6. Name: _____
7. Organization: _____
8. Position: _____
9. Municipality: _____
10. Province: _____
11. Gender:
 - g. Male
 - h. Female

Project overview: Challenges and successes

1. Describe your view of the PROGANA project from a high level, including its main desired results and what progress has been made towards achieving them?
2. What has been your involvement in the PROGANA project?
3. What have been some of the biggest challenges which the project has faced? Have they been addressed? If so, how?
4. What have been the biggest success of the project? Do you believe they are sustainable? If so, why?
5. Were there any unplanned outcomes (good or bad) that can be attributed to the project? If so, please describe.

Project complementarity with government priorities

- 6. Can you describe in your view, how the PROGANA project has supported or diverged in supporting the strategies and priorities of the government of D.R.?**

- 7. Can you describe efforts being made to achieve FSIS equivalence and continue strengthening the food safety inspection system following the completion of the PROGANA project?**

Project sustainability

- 8. In your opinion, which successful project activities do you view as being sustainable? Why?**

- 9. In your view, which local counterparts have increased their capabilities to continue with the project's actions, and why?**

- 10. Are the techniques and technologies used in the project easy to maintain locally? To what extent are the conditions for local control of these techniques and technologies guaranteed?**

Key Informant interview (KII) guide – Financial Institutions

Basic Information

1. Interviewer (write “non applicable” if completed online): _____
2. Date: _____
3. Select how the survey was conducted:
4. Face-to-face
5. Remote
6. Name: _____
7. Organization: _____
8. Position: _____
9. Municipality: _____
10. Province: _____
11. Gender:
 - i. Male
 - j. Female

Producer Organization (PO) overview

1. Please describe your role within the livestock value chain, including your interactions with producers and processors?
2. What financial products do you offer to the actors in the value chain?
3. What are some of the biggest challenges you face as an organization in carrying out your mission?
4. What are some of the biggest challenges faced by producers and processors with whom you work?

PROGANA project summary

5. What has been your involvement in the PROGANA project?
6. Describe your view of the PROGANA project from a high level, including its main desired results and what progress has been made towards achieving them?

7. Did the project do a good job involving you and other financial institutions with the necessary technical assistance addressing the financial needs of producers and processors?
8. In your view, how would you rate the PROGANA project's efforts to collaborate with financial institutions to conduct outreach to identify credit-worthy producers and processors

Project sustainability

9. For the project activities in which your organization has been involved, do you believe they are sustainable following the end of the PROGANA project?
10. Will you continue financing of producers and processors continue following the end of the project?

Producers - Users of the Project

Start of Block: BASIC INFORMATION

Q35
BASIC INFORMATION

Q3 Select how the survey was conducted

- ☐ Face-to-face (1)
- ☐ Remote (2)

Display This Question:

If Selected how the survey was conducted = Face-to-face

Q1 Interviewer

Q2 Date (DD/MM/YY)

Q4 Name

Q5 Organization

☐ Yes (4)

☐ No (5)

☐ I don't know (7)

Q6 Position

☐ Owner (4)

☐ Manager (5)

Q7 Municipality

Q8 Province

Q9 Gender of the interviewee

☐ Male (1)

☐ Female (2)

Q63 Are you responsible for the daily management of the farm?

☐ Yes (1)

☐ No (If not, please specify your role) (2) _____

Q10 Producer type

☐ Milk (1)

☐ Meat (2)

☐ Milk and Meat (3)

Q11 Products produced

- ☐ Milk (1)
- ☐ Meat (2)
- ☐ Cheese (3)
- ☐ Yogurt (4)
- ☐ Sweets (5)
- ☐ Other (specify) (6) _____
-

Q12 Production

- ☐ Stabled (1)
- ☐ Semi stabled (2)
- ☐ Open field (3)
- ☐ Other (specify) (4) _____
-

Q13 Number of employees

	Total (1)	Family (2)	Full time (3)	Temporary (4)	Local (5)	Foreign (6)
Number of employees (1)						

End of Block: BASIC INFORMATION

Start of Block: PROPERTY

Q36 PROPERTY

Q16 Land – Use – *Tareas* (.0155 acres)

	Superficie total (1)	Bovine livestock (2)	Milk (3)	Forage crops (4)	Grass cutting (5)	Protein banks (6)
<i>Tareas</i> (1)						

Q17 Property

- ☐ Leased (1)
- ☐ Titled property (2)
- ☐ Other (specify) (3) _____

End of Block: PROPERTY

Start of Block: PRODUCTION AND SALES

Q37 PRODUCTION AND SALES

Display This Question:

If Type of Producer = Milk

Or Type of Producer = Milk and Meat

Q65 # of *tareas* used for milk production

Display This Question:

If Type of Producer = Milk

Or Type of Producer = Milk and Meat

Q18 Daily milk production

- ☐ Unit (1) _____
- ☐ Price (2) _____
- ☐ Number of cows milked (3) _____

Display This Question:

If Type of Producer = Milk

Or Type of Producer = Milk and Meat

Q19 Liters / Cows / Daily Average

Display This Question:

If Type of Producer = Milk

Or Type of Producer = Milk and Meat

Q20 Self-consumption on farm (Liters per month)

Display This Question:

If Type of Producer = Milk

Or Type of Producer = Milk and Meat

Q21 Milk for sale (Liters per month)

Display This Question:

If Type of Producer = Milk

Or Type of Producer = Milk and Meat

Q22 Do you know what quality grade your milk is being received (in%)?

- ☐ I don't know (1) _____
- ☐ A (2) _____
- ☐ B (3) _____
- ☐ C (4) _____
- ☐ D (5) _____

Display This Question:

If Type of Producer = Milk

Or Type of Producer = Milk and Meat

Q23 Who do you sell your milk to?

- ☐ Milk collection center (Name) (1) _____
- ☐ Producer organization (Name) (2) _____
- ☐ Cheese factories (3)
- ☐ Confectionery producers (4)
- ☐ Processing plant (5)
- ☐ Intermediaries (6)
- ☐ Other (specify) (7) _____

Display This Question:

If Type of Producer = Meat

Or Type of Producer = Milk and Meat

Q26 Number of *tareas* currently used in meat production

Display This Question:

If Type of Producer = Meat

Or Type of Producer = Milk and Meat

Q27 How many cattle do you currently have?

Display This Question:

If Type of Producer = Meat

Or Type of Producer = Milk and Meat

Q28 Total animals sold this year:

	Discard (1)	Male calf (2)	Meat breed (3)
Quantity (1)			
Average price (2)			

Display This Question:

If Type of Producer = Meat

Or Type of Producer = Milk and Meat

Q29 Who did you sell to

- ☐ Slaughterhouse (1)
- ☐ Intermediary (6)
- ☐ Another rancher (7)
- ☐ Other (8) _____

Display This Question:

If Type of Producer = Meat

Or Type of Producer = Milk and Meat

Q30 Total animals purchased this year

	Milk breed (1)	Meat breed (2)
Quantity (1)		
Average price (2)		

Display This Question:

If Type of Producer = Meat

Or Type of Producer = Milk and Meat

Q32 Who did you buy from

- ☐ Slaughterhouse (1)
- ☐ Intermediaries (6)
- ☐ Another rancher (7)
- ☐ Other (4) _____

Q33 Do you carry out additional income-generating activities outside of the farm business?

☐ Yes (1)

☐ No (2)

Q34 In case you perform other activities, please list them

End of Block: PRODUCTION AND SALES

Start of Block: PARTICIPATION IN THE PROGANA PROJECT

Q36 PARTICIPATION IN THE PROGANA PROJECT

Q37 In what type of technical assistance of the PROGANA project did you participate? (Specify if it was you or someone from your farm)

☐ Administrative and financial management of the farm (meat and milk) (1)

☐ Animal health (meat and milk) (2)

☐ Animal feeding (meat and milk)) (3)

☐ Animal genetics and reproduction (meat and milk) (4)

☐ Hygienic milking and milk handling – quality (leche) (5)

Display This Question:

If In what type of technical assistance (TA) of the PROGANA project did you participate? (Specify if it was ... = Farm administrative and financial management (meat and milk)

Q38 Administrative and financial management of the farm (meat and milk). Did you receive TA or participate in training activities in:

- ☐ How to keep productive records (milk / cow / day), reproductive records, personnel, accounting) (1)
- ☐ Special handling of calves (4)
- ☐ Differentiated management of cows according to category and reproductive cycle by type (calves, heifers, first service, first calving heifers, cows for the first three months of lactation, cows between 4 and 7 months of lactation, cows for hours, empty cows) (5)

Display This Question:

If In what type of technical assistance (TA) of the PROGANA project did you participate? (Specify if it was ... = Animal health (meat and milk)

Q39 Animal health (meat and milk). Received TA or participated in training activities in:

- ☐ Sanitary management of the farm (1)
 - ☐ Basic health of the farm (4)
 - ☐ Prevention or cure of zoonotic diseases (5)
 - ☐ Activities in favor of animal welfare (6)
-

Display This Question:

If in what type of technical assistance (TA) of the PROGANA project did you participate? (Specify if it was ... = Animal health (meat and milk))

Q40 Animal feed (meat and milk). Received TA or participated in training activities in:

- ☐ Make grass improvements (1)
 - ☐ Carry out duck and forage conservation (6)
 - ☐ Build a protein reserve bank (7)
 - ☐ Mineral supplementation (8)
 - ☐ Use of multi-mineral blocks (9)
-

Display This Question:

If in what type of technical assistance (TA) of the PROGANA project did you participate? (Specify if it was ... = Animal health (meat and milk))

Q41 Genetics and animal reproduction (meat and milk). You received TA or participated in training activities in:

- ☐ Make reproductive diagnoses (1)
 - ☐ Doing andrological tests on bulls (4)
 - ☐ Doing artificial insemination (5)
 - ☐ Make genetic improvement to increase its production (6)
-

Display This Question:

If in what type of technical assistance (TA) of the PROGANA project did you participate? (Specify if it was ... = Animal health (meat and milk))

Q42 Hygienic milking and milk handling - quality (milk). Did you receive TA or participate in training activities in:

- ☐ Build or retrofit a milking parlor (1)
 - ☐ Use milk containers with food grade material (4)
 - ☐ Use of cleaning and disinfection kits (5)
 - ☐ California Mastitis Tests (6)
 - ☐ Use nipple sealant (7)
-

Q43 Did you participate in relationship activities with suppliers of veterinary products, food, genetics, equipment (meat and milk)?

- ☐ Yes (1)
 - ☐ No (2)
-

Q44 Did you participate in relationship activities with buyer intermediaries (meat and milk)?

- ☐ Yes (1)
 - ☐ No (2)
-

Q45 Did you participate in ASSOCIATIVITY activities to be or as a member of an association or cooperative?

☐ Yes (1)

☐ No (2)

Q46 Did you participate in training activities for access to credit from the financial sector?

☐ Yes (1)

☐ No (2)

End of Block: PARTICIPATION IN THE PROGANA PROJECT

Start of Block: RESULTS OF THE PROJECT INTERVENTION

Q47 RESULTS OF THE PROJECT INTERVENTION

Q48 Rank according to the importance of those that apply

	Yes (1)	No (6)
Has had access to animal health services (1)	☐	☐
Has participated in the membership of an association, cooperative or other producer organization (5)	☐	☐
Has had access to financing (6)	☐	☐

Q49 Rank according to the importance of those that apply

	Yes (1)	No (7)
Participation in the Livestock Field School has been beneficial (7)	☐	☐
My productivity has increased per acre or per animal (8)	☐	☐
The quality of my product has improved (11)	☐	☐
Sales have increased (12)	☐	☐
The Project has stimulated the participation of women in its activities (9)	☐	☐
Women in the milk / livestock value chain have increased their participation in decision making (10)	☐	☐

Q52 Has your relationship with the following actors increased

	Not applicable (1)	Not at all (2)	A bit (3)	A lot (4)
Milk Collection Centers or slaughterhouses (1)	☐	☐	☐	☐
Other producers (6)	☐	☐	☐	☐
Service and input providers (7)	☐	☐	☐	☐
Cooperatives and/or associations (8)	☐	☐	☐	☐
Financial institutions (9)	☐	☐	☐	☐
Government agencies (10)	☐	☐	☐	☐

Q55 What should be done to increase the participation of women in the value chain?

Q56 If applicable, please describe some achievements related to the participation of women in the value chain?

Q57 Answer the following questions (yes or no)

	Yes (1)	No (2)
Have you invested in the last 3 years in your activity / business? (1)	☐	☐
If you have invested, did it consist of acquiring new agricultural technologies or techniques? (6)	☐	☐
Did this technique improve your productivity? (8)	☐	☐
Do you plan to invest in machinery and / or technology in the next year? (9)	☐	☐
Do you consider that the project activity facilitated the decision process? (10)	☐	☐
My household income has increased thanks to project activities (11)	☐	☐
My administrative and financial knowledge has improved thanks to the project activities (12)	☐	☐
At the end of the PROGANA project I will be able to continue applying what I learned without the need for additional support. (13)	☐	☐

Display This Question:

If Answer the following questions yes or no = If you have invested, did it consist of acquiring new technologies or agricultural techniques? [Yes]

Q64 Please indicate what technique or technology you were able to acquire

End of Block: RESULTS OF THE PROJECT INTERVENTION

Start of Block: PRODUCER ASPIRATIONS

Q58 PRODUCER ASPIRATIONS

Q59 Mention the areas where you would like more support

- ☐ Technical assistance or training (1)
 - ☐ Milk quality (4)
 - ☐ Financial or management tools (5)
 - ☐ Milking parlors (7)
 - ☐ Access to financing (9)
 - ☐ Others, specify (10) _____
-

Q60 Mention in which areas you would like more support

- ☐ Reproduction (1)
 - ☐ Health (4)
 - ☐ Feeding (5)
 - ☐ Milk quality (6)
 - ☐ Meat quality (7)
 - ☐ Water harvesting (8)
 - ☐ Good livestock practices (9)
 - ☐ Commercializing (10)
 - ☐ Financial management (11)
 - ☐ Marketing (12)
 - ☐ Adaptation to drought (13)
 - ☐ Climate change adaptation (14)
 - ☐ Administration (15)
 - ☐ Others, specify (16) _____
-

Q62 General comments from the person interviewed. Do you have any questions for us?

Q67 Pollster observations

End of Block: PRODUCER ASPIRATIONS

Comparison Group Producers

Start of Block: BASIC INFORMATION

Q35
BASIC INFORMATION

Q3 Select how the survey was conducted

- ☐ Face-to-face (1)
- ☐ Remote (2)

Display This Question:

If Select how the survey was conducted = Face-to-face

Q1 Interviewer

Q2 Date (DD/MM/YY)

Q4 Name

Q5 Organization

☐ Yes (4)

☐ No (5)

☐ I don't know (6)

Q6 Position

☐ Owner (4)

☐ Manager (5)

Q7 Municipality

Q8 Province

Q9 Gender of the interviewee

☐ Male (1)

☐ Female (2)

Q35 Are you responsible for the daily management of the farm?

☐ Yes (1)

☐ No (If not, specify your role) (2) _____

Q10 Producer

☐ Milk (1)

☐ Meat (2)

☐ Milk and Meat (3)

Q11 Products produced

- ☐ Milk (1)
- ☐ Meat (2)
- ☐ Cheese (3)
- ☐ Yogurt (4)
- ☐ Sweets (5)
- ☐ Other (specify) (6) _____
-

Q12 Type of stabling

- ☐ Stabled (1)
- ☐ Semi stabled (2)
- ☐ Open field livestock (4)
- ☐ Other (specify) (3) _____
-

Q13 Number of employees

	Total (1)	Family (2)	Full Time (3)	Temporary(4)	Native (5)	Foreign (6)
Number of employees (1)						

End of Block: BASIC INFORMATION

Start of Block: PROPERTY

Q36 PROPERTY

Q16 Land – Uses - *Tareas* (0.155 acres)

	Surface total (1)	Bovine livestock (2)	Milk (3)	Forage crops (4)	Grass cutting (5)	Protein banks (6)
<i>Tareas</i> (1)						

Q17 Property

- ☐ Leased (1)
- ☐ Titled property (2)
- ☐ Other (specify) (3) _____

End of Block: PROPERTY

Start of Block: PRODUCTION AND SALES

Q37 PRODUCTION AND SALES

Display This Question:

If Producer type = Milk

Or Type of producer = Milk and Meat

Q36 # of *tareas* used for milk production

Display This Question:

If Producer type = Milk

Or Type of producer = Milk and Meat

Q18 Daily milk production

- ☐ Total liters (1) _____
- ☐ Number of cows milked (2) _____
- ☐ Price (3) _____

Display This Question:

If Producer type = Milk

Or Type of producer = Milk and Meat

Q19 Liters / Cows / Day Average

Display This Question:

If Producer type = Milk

Or Type of producer = Milk and Meat

Q20 Self-consumption on farm (Liters per month)

Display This Question:

If Producer type = Milk

Or Type of producer = Milk and Meat

Q21 Milk for sale (Liters per month))

Display This Question:

If Producer type = Milk

Or Type of producer = Milk and Meat

Q22 Do you know what quality grade your milk is being received (in%)?

- ☐ I don't know (1) _____
- ☐ A (2) _____
- ☐ B (3) _____
- ☐ C (4) _____
- ☐ D (5) _____

Display This Question:

If Producer type = Milk

Or Type of producer = Milk and Meat

Q23 Who do you sell your milk to?

- ☐ Milk collection center (Name) (1) _____
- ☐ Producers organization (Name) (2) _____
- ☐ Cheese factories (3)
- ☐ Confectionery producers (4)
- ☐ Processing plant (5)
- ☐ Intermediaries (6)
- ☐ Other (specify) (7) _____

Display This Question:

If Producer type = Meat

Or Type of producer = Milk and Meat

Q26 # of *tareas* used for meat production

Display This Question:

If Producer type = Meat

Or Type of producer = Milk and Meat

Q27 How many cattle do you currently have?

Display This Question:

If Producer type = Meat

Or Type of producer = Milk and Meat

Q28 Total animals sold this year:

	Discard (1)	Male calf (2)	Meat breed (3)
Quantity (1)			
Average price (2)			

Display This Question:

If Producer type = Meat

Or Type of producer = Milk and Meat

Q29 Who did you sell to:

- ☐ Slaughterhouse (1)
- ☐ Intermediary (2)
- ☐ Another rancher (3)
- ☐ Other (4) _____

Display This Question:

If Producer type = Meat

Or Type of producer = Milk and Meat

Q30 Total animals purchased this year

	Milk breed (1)	Meat breed (2)
Quantity (1)		
Average price (2)		

Display This Question:

If Producer type = Meat

Or Type of producer = Milk and Meat

Q32 Who did you buy from

- ☐ Intermediary (1)
- ☐ Another rancher (2)
- ☐ Other (3) _____

Q33 Do you carry out additional income-generating activities outside of the farm business?

☐ Yes (1)

☐ No (2)

Q34 If case you perform other activities, please list them

Q37 Pollster observations

End of Block: PRODUCTION AND SALES

Project Participating Processors

Start of Block: BASIC INFORMATION

Q11
BASIC INFORMATION

Q4 Select how the survey was conducted

☐ Face-to-face (1)

☐ Remote (2)

Display This Question:

If Select how the survey was conducted = Face-to-face

Q2 Interviewer

Q3 Date (DD/MM/YY)

Q5 Name

Q6 Organization

☐ Yes (4)

☐ No (5)

☐ I don't know (6)

Q7 Position

☐ Owner (4)

☐ Manager (5)

Q8 Municipality

Q9 Province

Q10 Gender of the interviewee

- ☐ Male (1)
- ☐ Female (2)
-

Q12 Are you responsible for the daily management of the farm?

- ☐ Yes (1)
- ☐ No (If not, specify your role) (2) _____
-

Q13 Type of processor

- ☐ Meat processor (1)
- ☐ Milk processor (2)
-

Display This Question:

If Processor type = Meat processor

Q14 Meat processor

- ☐ Modern vertically integrated slaughterhouse (1)
 - ☐ Traditional private slaughterhouse (2)
 - ☐ Municipal slaughterhouse (3)
 - ☐ Other (specify) (4) _____
-

Display This Question:

If Processor type = Milk processor

Q15 Milk processor

- ☐ Milk collection center (1)
 - ☐ Cheese factory (2)
 - ☐ Other (specify)) (3) _____
-

Q16 Products produced

- ☐ Meat (1)
- ☐ Milk (2)
- ☐ Cheese (3)
- ☐ Yogurt (4)
- ☐ Other (specify)) (5) _____
-

Q17 Number of employees

	Total (1)	Full time (2)	Temporary (3)	Native (4)	Foreign (5)
Number of employees (1)					

End of Block: BASIC INFORMATION

Start of Block: PROPERTY

Q1 PROPERTY

Q18 Sole owner of the facilities

☐ Yes (1)

☐ No (2)

Q19 Associative owner of the facilities

☐ Yes (1)

☐ No (2)

☐ 3 (3)

Q20 Do you have cold milk tank

☐ Yes (1)

☐ No (2)

Q21 Do you have a cold storage room for meat?

☐ Yes (1)

☐ No (2)

Display This Question:

If Milk processor = Collection center

Q22 Who do you sell your product to and with what quality?

	Quality (1)	A (2)	B (3)	C (4)	D (5)
Meat stores and grocery stores (1)	☐	☐	☐	☐	☐
Large industrial processors ((Rica, Nestlé, Induveca, Sigma) (2)	☐	☐	☐	☐	☐
Medium industrial processors (MilkAgro, San Juan, Michel, Cambre, El Banilejo, Oleaga, y Hacienda Agroindustrial Los Ángeles) (3)	☐	☐	☐	☐	☐
Small cheese and yogurt producers (4)	☐	☐	☐	☐	☐
Intermediary merchants (5)	☐	☐	☐	☐	☐

Display This Question:

If Milk processor = Cheese factory

Q23 Who do you sell your product to?

- ☐ Colmados and Colmadones (1)
- ☐ Large industrial processors ((Rica, Nestlé, Induveca, Sigma) (2)
- ☐ Medium industrial processors (MilkAgro, San Juan, Michel, Cambre, El Banilejo, Oleaga, y Hacienda Agroindustrial Los Ángeles) (3)
- ☐ Small cheese and yogurt producers (4)
- ☐ Intermediary merchants (5)

Display This Question:

If Processor type = Meat processor

Q24 Who do you sell your product to?

- ☐ Large industrial processors (1)
- ☐ Butcher shop (2)
- ☐ Rural local market (3)
- ☐ Local urban market (4)

Display This Question:

If Milk processor = Collection center

Q25 Who do you buy your product from?

- ☐ Buy from small / medium / large producers (1)
- ☐ Buy from intermediaries (2)
- ☐ Buy from carriers (3)

Display This Question:

If Milk processor = Cheese factory

Q27 Who do you buy your product from?

- ☐ Buy from small / medium / large producers (1)
- ☐ Buy from intermediaries (2)

Display This Question:

If Processor type = Meat processor

Q28 Who do you buy your product from?

- ☐ Buy from small / medium / large producers (1)
- ☐ Buy from intermediaries (2)

Q26 Who sets the prices and how are they set?

End of Block: PROPERTY

Start of Block: QUANTITY AND PRICES

Q29 QUANTITY AND PRICES

Display This Question:

If Milk processor = Collection center

Q30 Monthly average of milk sold

	Answer (1)
Price of a liter of milk sold (1)	
Monthly quantity sold (2)	
Buyer Description (3)	

Display This Question:

If Processor type = Meat processor

Q32 Monthly average of meat sold

	Answer (1)
Monthly quantity sold (1)	
Buyer Description	

Do you carry out additional income-generating activities outside of your slaughterhouse or collection center business?

☐ Yes (If so, please describe) (1) _____

☐ No (2)

End of Block: QUANTITY AND PRICES

Start of Block: PARTICIPATION IN THE PROGANA PROJECT

Q44 PARTICIPATION IN THE PROGANA PROJECT

Q45 In what type of technical assistance from the PROGANA project did you participate? (Specify if it was you or someone from your center / slaughterhouse)

- ☐ Analysis of milk / meat quality (A, B, C, D) (1)
- ☐ Analysis of milk solids and fat content (2)
- ☐ Training and technical assistance in milk quality (3)
- ☐ Training and technical assistance in meat quality (4)
- ☐ Training in administrative / financial management of the center / slaughterhouse (5)
- ☐ Access to financial services (6)
- ☐ Buyer / seller link (7)
- ☐ SPS training (8)
- ☐ Stakeholder meeting for equivalence (9)
- ☐ Quality seal training (10)
- ☐ Events that promote public and private partnerships (11)
- ☐ Meat / dairy audits (12)
- ☐ Participated in relationship activities with suppliers of veterinary products, food, genetics, equipment (meat and milk) (13)
- ☐ Participated in relationship activities with producers of (meat and milk) (14)
- ☐ Participated in ASSOCIATIVITY activities to become or as a member of an association or cooperative. (15)

- ☐ Accessed loans from the financial sector (16)

End of Block: PARTICIPATION IN THE PROGANA PROJECT

Start of Block: RESULTS OF THE PROJECT INTERVENTION

Q46 RESULTS OF THE PROJECT INTERVENTION

Q47 Rank according to the importance of those that apply

	Yes (1)	No (6)
Has had access to animal health services (1)	☐	☐
Has participated in the membership of an association, cooperative or other producer organization (2)	☐	☐
Has had access to financing (3)	☐	☐

Q57 Participation in the project has given access to new customers

- ☐ Yes (1)
- ☐ No (2)
-

Q58 Women have increased their participation in decision-making in processing centers and slaughterhouses

☐ Yes (1)

☐ No (2)

Q51 Has your relationship with the following actors increased?

	Not applicable (1)	Not at all (2)	A bit (3)	A lot (4)
Milk Collection Centers				
(1)	☐	☐	☐	☐
Slaughterhouses				
(2)	☐	☐	☐	☐
Cheese producers				
(3)	☐	☐	☐	☐
Other producers				
(4)	☐	☐	☐	☐
Service and input providers				
(5)	☐	☐	☐	☐
Cooperatives and / or associations				
(6)	☐	☐	☐	☐
Financial institutions				
(7)	☐	☐	☐	☐
Government agencies				
(8)	☐	☐	☐	☐

Merchants	☐	☐	☐	☐
(9)				
NGOs / Civil Society	☐	☐	☐	☐
(10)				

What should be done to increase the participation of women in the value chain?

Q55 If applicable, please describe some achievements related to the participation of women in the value chain?

Q56 Answer the following questions (yes or no)

	Yes (1)	No (2)
Have you invested in the last 3 years in your activity / business? (1)	☐	☐
If you have invested, did it consist of acquiring new technologies or processing techniques?2)	☐	☐
Did this technique help improve your productivity? (3)	☐	☐
Do you plan to invest in machinery and / or technology in the next year? (4)	☐	☐

Display This Question:

If Answer the following questions yes or no = If you have invested, did it consist of acquiring new technologies or processing techniques? [Yes]

Q61 Please indicate what technique or technology you were able to acquire

End of Block: RESULTADOS DE LA INTERVENCIÓN DEL PROYECTO

Start of Block: PROCESSOR ASPIRATIONS

Q61 PROCESSOR ASPIRATIONS

Q62 Mention the areas you would like to receive more support

- ☐ Technical support or training (1)
 - ☐ Milk quality (4)
 - ☐ Financial or management tools (5)
 - ☐ Milking parlors (7)
 - ☐ Access to financing (9)
 - ☐ Others, specify (10) _____
-

Q63 Mention the areas you would like to receive more training

- ☐ Reproduction (1)
 - ☐ Health (4)
 - ☐ Feeding (5)
 - ☐ Milk quality (6)
 - ☐ Meat quality (7)
 - ☐ Water harvesting (8)
 - ☐ Good livestock practices (9)
 - ☐ Commercializing (10)
 - ☐ Financial management (11)
 - ☐ Marketing (12)
 - ☐ Adaptation to drought (13)
 - ☐ Climate change adaptation (14)
 - ☐ Administration (15)
 - ☐ Others, specify (16)_____
-

Q65 General comments from the person interviewed. Do you have any questions for us?

Q66 Pollster observations

End of Block: PROCESSOR ASPIRATIONS

Consent form for EACs and DGFs

Interviewee	Interviewer	Date and place of the interview

Please read the following statement aloud to the interviewee for your consent. Be as natural and conversational as possible to keep the interviewee calm.

Declaration of consent

Thank you for taking the time to meet with us today. My name is [NAME]. I am a researcher from an organization called Just Results, a company based in the United States. Our team is in the Dominican Republic to conduct a study on the PROGANA Project, which was funded by the 'Food for Progress' program of the United States Department of Agriculture (USDA).

We would like to speak with you today to find out your perspective on the development of the project. This information will be used in a USDA report to be published. It is important for you to understand that while we want your help with this study, you do not have to do so if you do not want to, and you do not have to answer any questions that you are not comfortable with.

The objective of this research is to improve the performance of projects such as PROGANA. Therefore, this information may also be used by another organization.

The interview is expected to last a maximum of 60 minutes.

Do you have any questions? Please feel free to ask at any time. By saying 'yes', and by participating in this study, you are indicating that you have heard this statement of consent, that you have had the opportunity to ask questions about your participation and have given your voluntary consent to be a part.

Do you want to participate in the interview? You can answer yes or no.

Obtained Verbal	☐ Yes, I will participate	☐ No, I will not participate
Consent:		

Annex 4.2: Tools (Spanish)

Guía para Entrevistas con Actores Clave (EAC) – Staff y Partners de PROGANA

Información Básica

2. Entrevistador(escriba "no aplicable" si se completa en línea): _____
3. Fecha: _____
4. Seleccione cómo se realizó la encuesta:
5. Presencial
6. Remota
7. Nombre: _____
8. Organización: _____
9. Puesto: _____
10. Municipio: _____
11. Provincia: _____
12. Sexo:
- a. Hombre
- b. Mujer

Resumen del proyecto: desafíos y logros

13. Describa su visión del proyecto PROGRANA de manera general incluyendo los resultados principales deseados y el progreso conseguido para alcanzarlos
14. ¿Cuál ha sido su relación con el proyecto PROGRANA?
15. ¿Cuáles han sido algunos de los mayores desafíos enfrentados por el proyecto? ¿Fueron abordados? En caso afirmativo, ¿Cómo?
16. ¿Cuáles han sido los mayores logros del proyecto? ¿Considera que son sostenibles? En caso afirmativo, ¿Por qué?
17. ¿Existieron resultados inesperados (buenos o malos) atribuibles al proyecto? En caso afirmativo, por favor describa.

Actividades e implementación del proyecto
--

18. ¿Cuáles fueron las actividades más y menos exitosas? ¿Por qué?

19. Describa la estructura organizacional del proyecto. ¿Cuáles han sido los pros y contras de la implementación?

20. A lo largo del curso del Proyecto, ¿Qué adaptaciones, si las hubiera, se hicieron al proceso de implementación del proyecto? ¿De qué manera el Proyecto respondió a las conclusiones de la evaluación de medio término?

Sostenibilidad del proyecto

21. En su mente ¿Cuáles de las actividades exitosas cree que son sostenibles? ¿Por qué?

22. De qué manera los actores locales estuvieron involucrados en el manejo del proyecto? (ej. JAD, cooperativas y organizaciones de agricultores, centros de recolección del leche, mataderos, gobiernos locales y grupos de la sociedad civil)

23. ¿Las técnicas y tecnologías son fácil de mantener localmente? ¿En qué medida están garantizadas las condiciones locales para el control de estas técnicas y tecnologías?

24. ¿Considera que los gobiernos locales podrán alcanzar la equivalencia FSIS y continuar fortaleciendo el sistema de inspección de seguridad alimentaria?

Guía para Entrevistas con Actores Clave (EAC) – Organizaciones Productoras y Empresas

Información Básica

12. Entrevistador(escriba "no aplicable" si se completa en línea): _____
13. Fecha:
14. Seleccione cómo se realizó la encuesta:
15. Presencial
16. Remota
17. Nombre: _____
18. Organización _____
19. Puesto: _____
20. Municipio: _____
21. Provincia: _____
22. Sexo:
 - k. Hombre
 - l. Mujer

Resumen de la Organización Productora (OP)

1. ¿Podría describir su rol dentro de la cadena de valor ganadera, incluyendo sus interacciones con productores y procesadores?
2. ¿Cuáles son los mayores desafíos que enfrenta, como organización, para cumplir con su misión?
3. ¿Cuáles son los mayores desafíos que enfrentan los productores y procesadores con los que trabaja?

Resumen del proyecto PROGANA

4. ¿Cuál ha sido su relación con el proyecto PROGANA?
5. Describa su visión del proyecto PROGANA de manera general incluyendo los resultados principales deseados y el progreso conseguido para alcanzarlos

6. **¿Considera que el proyecto hizo un buen trabajo incluyéndolo a usted y otras organizaciones similares para el manejo de las actividades?**

Sostenibilidad del proyecto

7. **Para las actividades del proyecto en las que estuvo involucrado ¿considera que son sostenibles luego que PROGANA finalice? ¿Las técnicas y tecnologías son fácil de mantener localmente?**
8. **En su mente ¿cuál será el mayor desafío para alcanzar la equivalencia de los estándares de exportación de carne y leche?**
9. **¿Considera que los gobiernos locales podrán alcanzar la equivalencia FSIS y continuar fortaleciendo el sistema de inspección de seguridad alimentaria?**

Guía para Entrevistas con Actores Clave (EAC) – Staff de gobierno

Información Básica

1. Entrevistador(escriba "no aplicable" si se completa en línea):_____
2. Fecha:
3. Seleccione cómo se realizó la encuesta:
4. Presencial
5. Remota
6. Nombre:_____
7. Organización_____
8. Puesto:_____
9. Municipio:_____
10. Provincia:_____
11. Sexo:
- f. Hombre
- g. Mujer

Resumen del proyecto: desafíos y logros

11. Describa su visión del proyecto PROGRANA de manera general incluyendo los resultados principales deseados y el progreso conseguido para alcanzarlos
12. Describe el mandato de su organización relacionado con el proyecto?
13. ¿Cuál ha sido su relación con el proyecto PROGRANA?
14. ¿Cuáles han sido algunos de los mayores desafíos enfrentados por el proyecto? ¿Fueron abordados? En caso afirmativo, ¿Cómo?
15. ¿Cuáles han sido los mayores logros del proyecto? ¿Considera que son sostenibles? En caso afirmativo, ¿Por qué?
16. ¿Existieron resultados inesperados (buenos o malos) atribuibles al proyecto? En caso afirmativo, por favor describa.

Complementariedad del Proyecto con las prioridades del gobierno
--

17. ¿Podría describir, desde su perspectiva, de qué manera PROGANA ha apoyado o no, las estrategias y prioridades del gobierno de República Dominicana?

18. ¿Podría describir los esfuerzos realizados para alcanzar la equivalencia FSIS y continuar fortaleciendo el sistema de inspección de seguridad alimentaria, luego que finalice el Proyecto PROGANA?

Sostenibilidad del proyecto

19. En su mente ¿Cuáles de las actividades exitosas cree que son sostenibles? ¿Por qué?

20. Desde su perspectiva, ¿Qué contrapartes locales han incrementado sus capacidades para continuar con las acciones del proyecto, y por qué?

21. ¿Las técnicas y tecnologías son fácil de mantener localmente? ¿En qué medida están garantizadas las condiciones locales para el control de estas técnicas y tecnologías?

Guía para Entrevistas con Actores Clave (EAC) – Instituciones Financieras

Información Básica

1. Entrevistador(escriba "no aplicable" si se completa en línea):_____
2. Fecha:
3. Seleccione cómo se realizó la encuesta:
4. Presencial
5. Remota
6. Nombre:_____
7. Organización_____
8. Puesto:_____
9. Municipio:_____
10. Provincia:_____
11. Sexo:
- h. Hombre
- i. Mujer

Resumen de la Organización Productora (OP)

11. ¿Podría describir su rol dentro de la cadena de valor ganadera, incluyendo sus interacciones con productores y procesadores?
12. Que productos (financieros) ofrece a los actores de la cadena de valor?
13. ¿Cuáles son los mayores desafíos que enfrenta, como organización, para cumplir con su misión?
14. ¿Cuáles son los mayores desafíos que enfrentan los productores y procesadores con los que trabaja

Resumen del proyecto PROGANA

15. ¿Cuál ha sido su relación con el proyecto PROGANA?
16. Describa su visión del proyecto PROGRANA de manera general incluyendo los resultados principales deseados y el progreso conseguido para alcanzarlos

17. ¿Considera que el proyecto hizo un buen trabajo incluyéndolo a usted y otras instituciones financieras, para abordar las necesidades financieras de los productores y procesadores?

18. Desde su perspectiva ¿Cómo calificaría los esfuerzos hechos por PROGANA colaborando con instituciones financieras para identificar y llegar a productores y procesadores solventes?

Sostenibilidad del proyecto

19. Para las actividades del proyecto en las que estuvo involucrado ¿considera que son sostenibles luego que PROGANA finalice?

20. ¿Continuarías financiando a productores y procesadores una vez que el proyecto finalice?

Productores Usuarios del Proyecto

Start of Block: INFORMACIÓN BÁSICA

Q35
INFORMACIÓN BÁSICA

Q3 Seleccione cómo se realizó la encuesta

- ☐ Presencial (1)
- ☐ Remota (2)

Display This Question:

If Seleccione cómo se realizó la encuesta = Presencial

Q1 Entrevistador

Q2 Fecha (DD/MM/YY)

Q4 Nombre

Q5 Organización

☐ Si (4) _____

☐ No (5)

☐ No se (7)

Q6 Puesto

☐ Propietario (4)

☐ Encargado (5)

Q7 Municipio

Q8 Provincia

Q9 Sexo del entrevistado

☐ Hombre (1)

☐ Mujer (2)

Q63 ¿Eres responsable de la gestión diaria de la finca?

☐ Si (1)

☐ No (Si no, especifique su función) (2) _____

Q10 Tipo de productor

☐ Leche (1)

☐ Carne (2)

☐ Leche y Carne (3)

Q11 Productos producidos

- ☐ Leche (1)
- ☐ Carne (2)
- ☐ Queso (3)
- ☐ Yogurt (4)
- ☐ Dulce (5)
- ☐ Otro (diga cuál) (6) _____
-

Q12 Tipo de producción

- ☐ Estabulación (1)
- ☐ Semiestabulación (2)
- ☐ Ganaria a campo abierta (4)
- ☐ Otra (diga cuál) (3) _____
-

Q13 Cantidad empleados

	Total (1)	Familiarresa (2)	Fijos (3)	Temporales (4)	Nacionales (5)	Extranjeros (6)
Cantidad empleados (1)						

End of Block: INFORMACIÓN BÁSICA

Start of Block: PROPIEDAD

Q36 PROPIEDAD

Q16 Tierra – Usos (Tareas)

	Superficie total (1)	Ganadería bovina (2)	Leche (3)	Cultivos forrajeros (4)	Pasto de corte (5)	Bancos de proteína (6)
Tareas (1)						

Q17 Propiedad

- ☐ Alquilado (1)
- ☐ Propia con título (2)
- ☐ Otra (diga cuál) (3) _____

End of Block: PROPIEDAD

Start of Block: PRODUCCION Y VENTA

Q37 PRODUCCION Y VENTA

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q65 # de Tareas utilizadas para la producción de leche

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q18 Producción de leche día anterior

- ☐ Unidad (1) _____
- ☐ Precio (2) _____
- ☐ Cantidad de vacas ordeñadas (3) _____

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q19 Litres/Vacas/Día promedia

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q20 Autoconsumo en finca (Litros por mes)

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q21 Leche para venta (Litros por mes)

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q22 Sabe que grado de calidad está recibiendo su leche (en%)

- ☐ No sabe (1) _____
- ☐ A (2) _____
- ☐ B (3) _____
- ☐ C (4) _____
- ☐ D (5) _____

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q23 A quien vende su leche

- ☐ Centro de acopio (Nombre) (1) _____
- ☐ Org. de Productores (Nombre) (2) _____
- ☐ Queserías (3)
- ☐ Dulcerías (4)
- ☐ Planta procesadora (5)
- ☐ Intermediarios (6)
- ☐ Otra (especifique) (7) _____

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q26 Tareas actualmente utilizadas en producción de carne

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q27 ¿Cuántos vacunos tienes actualmente?

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q28 Total de animales vendidos este año:

	Descarte (1)	Becerro macho (2)	Raza carne (3)
Cantidad (1)			
Precio promedio (2)			

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q29 A quién le vendió

- ☐ Matadero (1)
- ☐ Intermediario (6)
- ☐ Otro ganadero (7)
- ☐ Otro (8) _____

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q30 Total de animales comprados este año

	Raza de leche (1)	Raza carne (2)
Cantidad (1)		
Precio promedio (2)		

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q32 A quién le compró

- ☐ Matadero (1)
- ☐ Intermediario (2)
- ☐ Otro ganadero (3)
- ☐ Otro (4) _____

Q33 Realiza actividades adicionales que le generen ingresos fuera del negocio de la finca?

☐ Si (1)

☐ No (2)

Q34 Si realiza otras actividades, favor listarlas

End of Block: PRODUCCION Y VENTA

Start of Block: PARTICIPACIÓN EN EL PROYECTO PROGANA

Q36 PARTICIPACIÓN EN EL PROYECTO PROGANA

Q37 ¿En qué tipo de asistencia técnica (AT) del proyecto PROGANA usted participó? (Especificar si fue usted o alguien de su finca)

☐ Maneje administrativo y financiero de finca (carne y leche) (1)

☐ Salud animal (carne y leche) (2)

☐ Alimentación animal (carne y leche) (3)

☐ Genética y reproducción animal (carne y leche) (4)

☐ Ordeño higiénico y manejo de la leche – calidad (leche) (5)

Display This Question:

If ¿En qué tipo de asistencia técnica (AT) del proyecto PROGANA usted participó? (Especificar si fue... = Maneje administrativo y financiero de finca (carne y leche)

Q38 Manejo administrativo y financiero de finca (carne y leche). Recibió AT o participó en actividades de capacitación en:

- ☐ Como llevar registros productivos (leche/vaca/día), registros reproductivos, personal, contabilidad) (1)
- ☐ Manejo especial de becerras (4)
- ☐ Manejo diferenciado de vacas según categoría y ciclo reproductivo tipo (terneras, novillas, primer servicio, novillas primer parto, vacas tres primeros meses de lactancia, vacas entre 4 y 7 meses de lactancia, vacas horas, vacas vacías) (5)

Display This Question:

If ¿En qué tipo de asistencia técnica (AT) del proyecto PROGANA usted participó? (Especificar si fue... = Salud animal (carne y leche)

Q39 Salud animal (carne y leche)

Recibió AT o participó en actividades de capacitación en:

- ☐ Manejo sanitario de la finca (1)
 - ☐ Sanidad básica de la finca (4)
 - ☐ Prevención o cura enfermedades zoonóticas (5)
 - ☐ Sobre actividades en pro del bienestar animal (6)
-

Display This Question:

If ¿En qué tipo de asistencia técnica (AT) del proyecto PROGANA usted participó? (Especificar si fue... = Alimentación animal (carne y leche)

Q40 Alimentación animal (carne y leche). Recibió AT o participó en actividades de capacitación en:

- ☐ Hacer mejoras de pastura (1)
 - ☐ Realizar conservación de pato y forraje (6)
 - ☐ Elaborar un banco de reserva de proteína (7)
 - ☐ Suplementación de minerales (8)
 - ☐ Uso de bloques multiminerales (9)
-

Display This Question:

If ¿En qué tipo de asistencia técnica (AT) del proyecto PROGANA usted participó? (Especificar si fue... = Genética y reproducción animal (carne y leche)

Q41 Genética y reproducción animal (carne y leche). Recibió AT o participó en actividades de capacitación en:

- ☐ Hacer diagnóstico reproductivos (1)
 - ☐ Hacer pruebas andrológicas a toros (4)
 - ☐ Hacer inseminación artificial (5)
 - ☐ Hacer mejoramiento genético para aumentar su producción (6)
-

Display This Question:

If ¿En qué tipo de asistencia técnica (AT) del proyecto PROGANA usted participó? (Especificar si fue... = Ordeño higiénico y manejo de la leche – calidad (leche)

Q42 Ordeño higiénico y manejo de la leche – calidad (leche). Recibió AT o participó en actividades de capacitación en:

- ☐ Construir o adecuar una sala de ordeño (1)
 - ☐ Utilizar recipientes de leche con material de grado alimenticio (4)
 - ☐ Utilizar kits de limpieza y desinfección (5)
 - ☐ Hacer prueba de California para Mastitis (6)
 - ☐ Usar sellante de pezones (7)
-

Q43 Participó en actividades de relacionamiento con proveedores de productos veterinarios, alimentos, genética, equipos (carne y leche)

- ☐ Si (1)
 - ☐ No (2)
-

Q44 Participó en actividades de relacionamiento con intermediarios compradores (carne y leche)

- ☐ Si (1)
 - ☐ No (2)
-

Q45 Participó en actividades de ASOCIATIVIDAD para ser o como miembro de asociación o cooperativa.

☐ Si (1)

☐ No (2)

Q46 Participó en actividades de capacitación de acceso a créditos del sector financiero

☐ Si (1)

☐ No (2)

End of Block: PARTICIPACIÓN EN EL PROYECTO PROGANA

Start of Block: RESULTADOS DE LA INTERVENCIÓN DEL PROYECTO

Q47 RESULTADOS DE LA INTERVENCIÓN DEL PROYECTO

Q48 Hacer ranking de importancia de los que aplican

	Si (1)	No (6)
Ha tenido acceso a servicios de salud animal (1)	☐	☐
Ha participado en la membresía de una asociación, cooperativa u otra organización de productores (5)	☐	☐
Ha tenido acceso a financiamiento (6)	☐	☐

Q49 Hacer ranking de importancia de los que aplican

	Si (1)	No (7)
La participación en la Escuela de Campo de Ganadería ha sido beneficiosa (7)	☐	☐
He visto aumentado su productividad por tarea o por animal (8)	☐	☐
Ha mejorado la calidad de mi producto (11)	☐	☐
Ha aumentado las ventas (12)	☐	☐
El Proyecto ha estimulado la participación de mujeres a sus actividades (9)	☐	☐
Las mujeres en la cadena de valor de leche/ganado han aumentado su participación en la decisiones (10)	☐	☐

Q52 Ha aumentado su relación con los siguientes actores

	No aplica (1)	Par nada (2)	Un poco (3)	Mucho (4)
Centros de Recolección de Leche o mataderos (1)	☐	☐	☐	☐
Otros productores (6)	☐	☐	☐	☐
Proveedores de servicios e insumos (7)	☐	☐	☐	☐
Cooperativas y/o asociaciones (8)	☐	☐	☐	☐
Instituciones financieras (9)	☐	☐	☐	☐
Agencias del gobierno (10)	☐	☐	☐	☐

Q55 ¿Qué se debería hacer para aumentar la participación de las mujeres en la cadena de valor?

Q56 Si aplicable, por favor describir algunos logros relacionados con la participación de las mujeres en la cadena de valor?

Q57 Responda las siguientes preguntas sí o no

	Si (1)	No (2)
¿Ha invertido en los últimos 3 años en su actividad/negocio? (1)	☐	☐
Si ha invertido, ¿Esta consistió en adquirir nuevas tecnologías o técnicas agropecuarias? (6)	☐	☐
¿Esta técnica le permitió mejorar su productividad? (8)	☐	☐
¿Tiene pensado invertir en maquinaria y/o tecnología en el próximo año? (9)	☐	☐
¿Considera que la actividad del proyecto le facilitó el proceso de decisión? (10)	☐	☐
Los ingresos de mi hogar han incrementado gracias a las actividades del proyecto (11)	☐	☐
Mis conocimientos administrativos y financieros han mejorado gracias a las actividades del proyecto (12)	☐	☐
Al final del Proyecto PROGANA seré capaz de seguir aplicando lo que aprendí sin la necesidad de apoyos adicionales (13)	☐	☐

Display This Question:

If Responda las siguientes preguntas sí o no = Si ha invertido, ¿Esta consistió en adquirir nuevas tecnologías o técnicas agropecuarias? [Si]

Q64 Indique por favor que técnica o tecnología pudo adquirir

End of Block: RESULTADOS DE LA INTERVENCIÓN DEL PROYECTO

Start of Block: ASPIRACIONES DE LOS PRODUCTORES

Q58 ASPIRACIONES DE LOS PRODUCTORES

Q59 Mencione en que área le gustaria recibir mas apoyo

- ☐ Acompañamiento técnico o capacitación (1)
 - ☐ Calidad de leche (4)
 - ☐ Herramientas financieras o de administración (5)
 - ☐ Salas de ordeño (7)
 - ☐ Acceso a financiamiento (9)
 - ☐ Otros, especifique (10) _____
-

Q60 Mencione en que area le gustaria recibir mas capacitacion

- ☐ Reproducción (1)
 - ☐ Sanidad (4)
 - ☐ Alimentación (5)
 - ☐ Calidad de leche (6)
 - ☐ Calidad de carne (7)
 - ☐ Cosecha de agua (8)
 - ☐ Buenas prácticas ganaderas (9)
 - ☐ Comercialización (10)
 - ☐ Manejo financiero (11)
 - ☐ Mercadeo (12)
 - ☐ Adaptación sequia (13)
 - ☐ Adaptación cambio climático (14)
 - ☐ Administración (15)
 - ☐ Otros, especifique (16) _____
-

Q62 Comentarios generales de la persona entrevistada. Tienen preguntas para nosotros?

Q67 Observaciones del encuestador

End of Block: ASPIRACIONES DE LOS PRODUCTORES

Productores en Grupo de Comparación

Start of Block: INFORMACIÓN BÁSICA

Q35

INFORMACIÓN BÁSICA

Q3 Seleccione cómo se realizó la encuesta

☐ Presencial (1)

☐ Remota (2)

Display This Question:

If Seleccione cómo se realizó la encuesta = Presencial

Q1 Entrevistador

Q2 Fecha (DD/MM/YY)

Q4 Nombre

Q5 Organización

☐ Si (4) _____

☐ No (5)

☐ No se (6)

Q6 Puesto

☐ Propietario (4)

☐ Encargado (5)

Q7 Municipio

Q8 Provincia

Q9 Sexo del entrevistado

☐ Hombre (1)

☐ Mujer (2)

Q35 ¿Eres responsable de la gestión diaria de la finca?

☐ Si (1)

☐ No (Si no, especifique su función) (2) _____

Q10 Tipo de productor

☐ Leche (1)

☐ Carne (2)

☐ Leche y Carne (3)

Q11 Productos producidos

- ☐ Leche (1)
 - ☐ Carne (2)
 - ☐ Queso (3)
 - ☐ Yogurt (4)
 - ☐ Dulce (5)
 - ☐ Otro (diga cuál) (6) _____
-

Q12 Tipo de estabulación

- ☐ Estabulación (1)
 - ☐ Semiestabulación (2)
 - ☐ Ganaria a campo abierta (4)
 - ☐ Otra (diga cuál) (3) _____
-

Q13 Cantidad empleados

	Total (1)	Familiarresa (2)	Fijos (3)	Temporales (4)	Nacionales (5)	Extranjeros (6)
Cantidad empleados (1)						

End of Block: INFORMACIÓN BÁSICA

Start of Block: PROPIEDAD

Q36 PROPIEDAD

Q16 Tierra – Usos (Tareas)

	Superficie total (1)	Ganadería bovina (2)	Leche (3)	Cultivos forrajeros (4)	Pasto de corte (5)	Bancos de proteína (6)
Tareas (1)						

Q17 Propiedad

- ☐ Alquilado (1)
- ☐ Propia con título (2)
- ☐ Otra (diga cuál) (3) _____

End of Block: PROPIEDAD

Start of Block: PRODUCCION Y VENTA

Q37 PRODUCCION Y VENTA

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q36 # de Tareas utilizadas para la producción de leche

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q18 Producción de leche día anterior

- ☐ Litros totales (1) _____
- ☐ Cantidad de vacas ordeñadas (2) _____
- ☐ Precio (4) _____

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q19 Litres/Vacas/Día promedia

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q20 Autoconsumo en finca (Litros por mes)

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q21 Leche para venta (Litros por mes)

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q22 Sabe que grado de calidad está recibiendo su leche (en %)

- ☐ No sabe (1) _____
- ☐ A (2) _____
- ☐ B (3) _____
- ☐ C (4) _____
- ☐ D (5) _____

Display This Question:

If Tipo de productor = Leche

Or Tipo de productor = Leche y Carne

Q23 A quien vende su leche

- ☐ Centro de acopio (Nombre) (1) _____
- ☐ Org. de Productores (Nombre) (2) _____
- ☐ Queserías (3)
- ☐ Dulcerías (4)
- ☐ Planta procesadora (5)
- ☐ Intermediarios (6)
- ☐ Otra (especifique) (7) _____

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q26 Tareas actualmente utilizadas en producción de carne

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q27 ¿Cuántos vacunos tienes actualmente?

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q28 Total de animales vendidos este año:

	Descarte (1)	Becerro macho (2)	Raza carne (3)
Cantidad (1)			
Precio promedio (2)			

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q29 A quién le vendió

- ☐ Matadero (1)
- ☐ Intermediario (2)
- ☐ Otro ganadero (3)
- ☐ Otro (4) _____

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q30 Total de animales comprados este año

	Raza de leche (1)	Raza carne (2)
Cantidad (1)		
Precio promedio (2)		

Display This Question:

If Tipo de productor = Carne

Or Tipo de productor = Leche y Carne

Q32 A quién le compró

- ☐ Intermediario (1)
- ☐ Otro ganadero (2)
- ☐ Otro (3) _____

Q33 Realiza actividades adicionales que le generen ingresos fuera del negocio de la finca?

☐ Si (1)

☐ No (2)

Q34 Si realiza otras actividades, favor listarlas

Q37 Observaciones del encuestador

End of Block: PRODUCCION Y VENTA

Procesadores Participantes del Proyecto

Start of Block: INFORMACIÓN BÁSICA

Q11

INFORMACIÓN BÁSICA

Q4 Seleccione cómo se realizó la encuesta

☐ Presencial (1)

☐ Remota (2)

Display This Question:

If Seleccione cómo se realizó la encuesta = Presencial

Q2 Entrevistador

Q3 Fecha (DD/MM/YY)

Q5 Nombre

Q6 Organización

☐ Si (4) _____

☐ No (5)

☐ No se (6)

Q7 Puesto

☐ Propietario (4)

☐ Encargado (5)

Q8 Municipio

Q9 Provincia

Q10 Sexo del entrevistado

☐ Hombre (1)

☐ Mujer (2)

Q12 ¿Eres responsable de la gestión diaria de la finca?

☐ Si (1)

☐ No (Si no, especifique su función) (2) _____

Q13 Tipo de procesador

☐ Procesador de carne (1)

☐ Procesador de leche (2)

Display This Question:

If Tipo de procesador = Procesador de carne

Q14 Procesador de carne

- ☐ Matadero moderno verticalmente integrado (1)
 - ☐ Matadero privado tradicional (2)
 - ☐ Matadero municipal (3)
 - ☐ Otra (diga cuál) (4) _____
-

Display This Question:

If Tipo de procesador = Procesador de leche

Q15 Procesador de leche

- ☐ Centro de recolección (1)
 - ☐ Quesería (2)
 - ☐ Otra (diga cuál) (3) _____
-

Q16 Productos producidos

- ☐ Carne (1)
- ☐ Leche (2)
- ☐ Queso (3)
- ☐ Yogurt (4)
- ☐ Otra (diga cuál) (5) _____
-

Q17 Cantidad empleados

	Total (1)	Fijo (2)	Temporales (3)	Nacional (4)	Extranjeros (5)
Cantidad empleados (1)					

End of Block: INFORMACIÓN BÁSICA

Start of Block: PROPIEDAD

Q1 PROPIEDAD

Q18 Dueño único de las instalaciones

☐ Si (1)

☐ No (2)

Q19 Dueño asociativo de las instalaciones

☐ Si (1)

☐ No (2)

☐ 3 (3)

Q20 Tiene tanque de frío de leche

☐ Si (1)

☐ No (2)

Q21 Tiene cuarto frío para la carne

☐ Si (1)

☐ No (2)

Display This Question:

If Procesador de leche = Centro de recolección

Q22 A quién vende su producto y con qué calidad

	Calidad (1)	A (2)	B (3)	C (4)	D (5)
Colmados y Colmadones (1)	☐	☐	☐	☐	☐
Grandes procesadores industriales ((Rica, Nestlé, Induveca, Sigma) (2)	☐	☐	☐	☐	☐
Procesadores medianos industriales (MilkAgro, San Juan, Michel, Cambre, El Banilejo, Oleaga, y Hacienda Agroindustrial Los Ángeles) (3)	☐	☐	☐	☐	☐
Productores chicos de queso y yogurt (4)	☐	☐	☐	☐	☐
Comerciantes intermedarios (5)	☐	☐	☐	☐	☐

Display This Question:

If Procesador de leche = Quesería

Q23 A quién vende su producto

- ☐ Colmados y Colmadones (1)
- ☐ Grandes procesadores industriales ((Rica, Nestlé, Induveca, Sigma) (2)
- ☐ Procesadores medianos industriales (MilkAgro, San Juan, Michel, Cambre, El Banilejo, Oleaga, y Hacienda Agroindustrial Los Ángeles) (3)
- ☐ Productores chicos de queso y yogurt (4)
- ☐ Comerciantes intermedarios (5)

Display This Question:

If Tipo de procesador = Procesador de carne

Q24 A quién vende su producto

- ☐ Procesadores industriales grandes (1)
- ☐ Carnicería (2)
- ☐ Mercado local rural (3)
- ☐ Mercado urbano local (4)

Display This Question:

If Procesador de leche = Centro de recolección

Q25 A quién compra su producto

- ☐ Compra a productores a productores pequeños / medianos / grandes (1)
- ☐ Compra a intermediarios (2)
- ☐ Compra a transportistas (3)

Display This Question:

If Procesador de leche = Quesería

Q27 A quién compra su producto

- ☐ Compra a productores a productores pequeños / medianos / grandes (1)
- ☐ Compra a intermediarios (2)

Display This Question:

If Tipo de procesador = Procesador de carne

Q28 A quién compra su producto

- ☐ Compra a pequeños o grandes productores (1)
- ☐ Compra a intermediarios (2)

Q26 Quién y cómo se fijan los precios

End of Block: PROPIEDAD

Start of Block: CANTIDAD Y PRECIOS

Q29 CANTIDAD Y PRECIOS

Display This Question:

If Procesador de leche = Centro de recolección

Q30 Promedio mensual de leche vendida

	Respuesta (1)
Precio de litro de leche vendido (1)	
Cantidad mensual vendida (2)	
Descripción de comprador (3)	

Display This Question:

If Tipo de procesador = Procesador de carne

Q32 Promedio mensual de carne vendida

	Respuesta (1)
Cantidad mensual vendida (1)	
Descripción de comprador (2)	

Q31 Realiza actividades adicionales que le generen ingresos fuera de su negocio de matadero o centro recolector?

- ☐ Si (En caso afirmativo, describa) (1) _____
- ☐ No (2)

End of Block: CANTIDAD Y PRECIOS

Start of Block: PARTICIPACIÓN EN EL PROYECTO PROGANA

Q44 PARTICIPACIÓN EN EL PROYECTO PROGANA

Q45 ¿En qué tipo de asistencia técnica del proyecto PROGANA usted participó? (Especificar si fue usted o alguien de su centro/matadero)

- ☐ Análisis de la calidad de la leche/carne (A, B, C, D) (1)
- ☐ Análisis de contenido sólidos y grasa de la leche (2)
- ☐ Capacitación y asistencia técnica en calidad de la leche (3)
- ☐ Capacitación y asistencia técnica en calidad de la carne (4)
- ☐ Capacitación en gestión administrativa/financiera de centro/matadero (5)
- ☐ Acceso a servicios financieros (6)
- ☐ Vinculación comprador/vendedor (7)
- ☐ Entrenamiento de SPS (8)
- ☐ Reunión para stakeholder para equivalencia (9)
- ☐ Capacitación en sello de calidad (10)
- ☐ Eventos que promueven alianzas públicas y privadas (11)
- ☐ Auditorías cárnicas/lácteas (12)
- ☐ Participó en actividades de relacionamiento con proveedores de productos veterinarios, alimentos, genética, equipos (carne y leche) (13)
- ☐ Participó en actividades de relacionamiento con productores de (carne y leche) (14)
- ☐ Participó en actividades de ASOCIATIVIDAD para ser o como miembro de asociación o cooperativa. (15)

☐ Accedió a créditos del sector financiero (16)

End of Block: PARTICIPACIÓN EN EL PROYECTO PROGANA

Start of Block: RESULTADOS DE LA INTERVENCIÓN DEL PROYECTO

Q46 RESULTADOS DE LA INTERVENCIÓN DEL PROYECTO

Q47 Hacer ranking de importancia de los que aplican

	Si (1)	No (6)
Ha tenido acceso a servicios de calidad (1)	☐	☐
Ha participado en la membresía de una asociación, cooperativa u otra organización de processadores (2)	☐	☐
Ha tenido acceso a financiamiento (3)	☐	☐

Q57 La participación en el proyecto le ha dado acceso a nuevos clientes

☐ Si (1)

☐ No (2)

Q58 Las mujeres han aumentado su participacion en la decisiones en los centros de procesamiento y mataderos

☐ Si (1)

☐ No (2)

Q51 Ha aumentado su relación con los siguientes actores

	No aplica (1)	Par nada (2)	Un poco (3)	Mucho (4)
Centros de Recolección de Leche	☐	☐	☐	☐
(1)				
Mataderos	☐	☐	☐	☐
(2)				
Productores de queso	☐	☐	☐	☐
(3)				
Otros productores	☐	☐	☐	☐
(4)				
Proveedores de servicios e insumos	☐	☐	☐	☐
(5)				
Cooperativas y/o asociacioens	☐	☐	☐	☐
(6)				
Instituciones financieras	☐	☐	☐	☐
(7)				
Agencias del gobierno	☐	☐	☐	☐
(8)				

Comercializadores	☐	☐	☐	☐
(9)				
ONGs/Sociedad civil	☐	☐	☐	☐
(10)				

Q54 ¿Qué se debería hacer para aumentar la participación de las mujeres en la cadena de valor?

Q55 Si aplicable, por favor describir algunos logros relacionados con la participación de las mujeres en la cadena de valor?

Q56 Responda las siguientes preguntas sí o no

	Si (1)	No (2)
¿Ha invertido en los últimos 3 años en su actividad/negocio? (1)	☐	☐
Si ha invertido, ¿Esta consistió en adquirir nuevas tecnologías o técnicas de procesamiento? (2)	☐	☐
¿Esta técnica le permitió mejorar su productividad? (3)	☐	☐
¿Tiene pensado invertir en maquinaria y/o tecnología en el próximo año? (4)	☐	☐

Display This Question:

If Responda las siguientes preguntas sí o no = Si ha invertido, ¿Esta consistió en adquirir nuevas tecnologías o técnicas de procesamiento? [Si]

Q61 Indique por favor que técnica o tecnología pudo adquirir

End of Block: RESULTADOS DE LA INTERVENCIÓN DEL PROYECTO

Start of Block: ASPIRACIONES DE LOS PROCESADORES

Q61 ASPIRACIONES DE LOS PROCESADORES

Q62 Mencione en que área le gustaria recibir mas apoyo

- ☐ Acompañamiento técnico o capacitación (1)
 - ☐ Calidad de leche (4)
 - ☐ Herramientas financieras o de administración (5)
 - ☐ Salas de ordeño (7)
 - ☐ Acceso a financiamiento (9)
 - ☐ Otros, especifique (10) _____
-

Q63 Mencione en que area le gustaria recibir mas capacitacion

- ☐ Reproducción (1)
 - ☐ Sanidad (4)
 - ☐ Alimentación (5)
 - ☐ Calidad de leche (6)
 - ☐ Calidad de carne (7)
 - ☐ Cosecha de agua (8)
 - ☐ Buenas prácticas ganaderas (9)
 - ☐ Comercialización (10)
 - ☐ Manejo financiero (11)
 - ☐ Mercadeo (12)
 - ☐ Adaptación sequia (13)
 - ☐ Adaptación cambio climático (14)
 - ☐ Administración (15)
 - ☐ Otros, especifique (16) _____
-

Q65 Comentarios generales de la persona entrevistada. Tienen preguntas para nosotros?

Q66 Observaciones del encuestador

End of Block: ASPIRACIONES DE LOS PROCESADORES

Formulario de consentimiento para EACs y DGFs

Entrevistado	Entrevistador	Fecha y lugar de la entrevista

Por favor lea al entrevistado la siguiente declaración en voz alta para su consentimiento.

Sea lo mas natural y conversacional posible para mantener tranquilo al entrevistado.

Declaración de consentimiento

Gracias por tomarse el tiempo para reunirse con nosotros hoy. Mi nombre es [NOMBRE]. Soy un/a investigador/a proveniente de una organización llamada Just Results, una compañía basada en los Estados Unidos. Nuestro equipo está en la República Dominicana para llevar a cabo un estudio sobre el Proyecto PROGANA, que fue financiado por el programa 'Food for Progress' del Departamento de Agricultura de los Estados Unidos (USDA).

Quisiéramos conversar con usted hoy para conocer su perspectiva sobre el desarrollo del proyecto. Esta información será utilizada en un reporte para USDA que será público. Es importante que entienda que, aunque queremos su ayuda para este estudio, no tiene que hacerlo si así no lo desea, y tampoco tiene que responder ninguna pregunta con la que no se sienta cómodo/a.

El objetivo de esta investigación es mejorar la performance de proyectos como PROGANA. Por tal motivo, esta información podrá también ser usada por otra organización.

Se espera que la entrevista dure como máximo 60 minutos.

¿Tiene alguna pregunta? Por favor, siéntase libre de preguntar en cualquier momento. Al decir que 'sí', y al participar de este estudio, está indicando que ha oído esta declaración de consentimiento, que ha tenido la oportunidad de hacer preguntas sobre su participación, y ha dado su consentimiento voluntario para ser parte.

¿Desea participar de la entrevista? Puede responder si o no.

Consentimiento verbal obtenido:	☐ Si, participaré	☐ No, no participaré
--	--	---

Annex 5: Interviews and Focus Groups

Organizations participating in Key Informant Interviews (KIIs)

Project and Partners

- Cooperative Resources International (CRI/GENEX)
- *Fundacion REDDOM*
- *Junta Agroempresarial Dominicana* (JAD)
- National Cooperative Business Association – Cooperative League of the USA (NCBA CLUSA)
- Texas A&M Agrilife Research, a member of the Texas A&M University system (TAMU)
- United States Department of Agriculture (USDA)

Government and International organizations

- *Consejo Nacional para la Reglamentación y Fomento de la Industria Lechera* (CONALECHE)
- *Consejo Nacional de Competitividad*
- *Dirección General de Ganadería* (DIGEGA)
- *Dirección General de Medicamentos, Alimentos y Productos Sanitario* (DIGEMAPS)
- *Instituto Dominicano de Calidad* (INDOCAL) in the Ministry of Industry and Trade
- Inter-American Development Bank (IDB)
- *Laboratorio Veterinario Central* (LAVECEN) at the Ministry of Agriculture
- *Organismo Internacional Regional de Sanidad Agropecuaria* (OIRSA)

Businesses, financial institutions, and other Value Chain Actors

- Banco ADEMI
- Banco ADOPEM
- Deliciél
- Grupo Rica
- MERCARNE
- NESTLE
- Organic Valley
- Quesería LUPA
- Quesería ROTTIS

Producer Organizations

- *Asociación Dominicana de Agricultura* (ADA)
- *Asociación Dominicana de Hacendados y Agricultores* (ADHA)

- *ASOCIACIÓN DE GANADEROS DE CORDERO (AGACO)*
- *Asociación de Ganaderos de Arroyo Ancho*
- *Asociación de Ganaderos de Dajabon*
- *Asociación de Ganaderos de Luperon*
- *Asociación de Ganaderos de Partido, La gorra y Chacuey*
- *Asociación de Ganaderos de Restauración*
- *Asociación de Ganaderos de San Juan de la Maguana (AGASAJUMA)*
- *Asociación de Ganaderos Elido Breton*
- *Asociación de Ganaderos Juancito Fermin*
- *Asociación de Ganaderos Productores de Leche de San Juan (APROLESA)*
- *Asociación de Ganaderos y Productores de leche Copeyito*
- *Asociación Nacional de Productores de Ganado de Carne (ASOCARNE)*
- *Asociación de Pequeños Ganaderos de Pedro Corto (ASOGAPECO)*
- *Asociación de Productores de Leche (APROLECHE)*
- *Cooperativa de Ganaderos de Dajabón*
- *Cooperativa FEDEGANORTE COOPFEDEGANORTE*

Focus Group Discussions (FGDs)

FGD type	Organization	Province
Producers	<i>Asociación de Ganaderos de Villa Riva y Arenoso</i>	Duarte
Producers	N/A	Puerto Plata
Producers	N/A	Santiago Rodriguez
Producers	<i>Asociación de Productores de Leche de San Juan (APROLESA)</i>	San Juan
Extensionists	<i>Asociación de Productores de Leche de Santiago de la Cruz</i>	Dajabon
Extensionists	<i>Asociación de Productores de Leche de San Juan (APROLESA)</i>	San Juan
Extensionists	MEGALECHE	Santo Domingo

Annex 6: TOR for the Final Evaluation



NCBA CLUSA International

Safe Agriculture/Food Export (SAFE)

Final Performance Evaluation

Request for Proposal (RFP)

November 2020

1. Statement of Work Detail

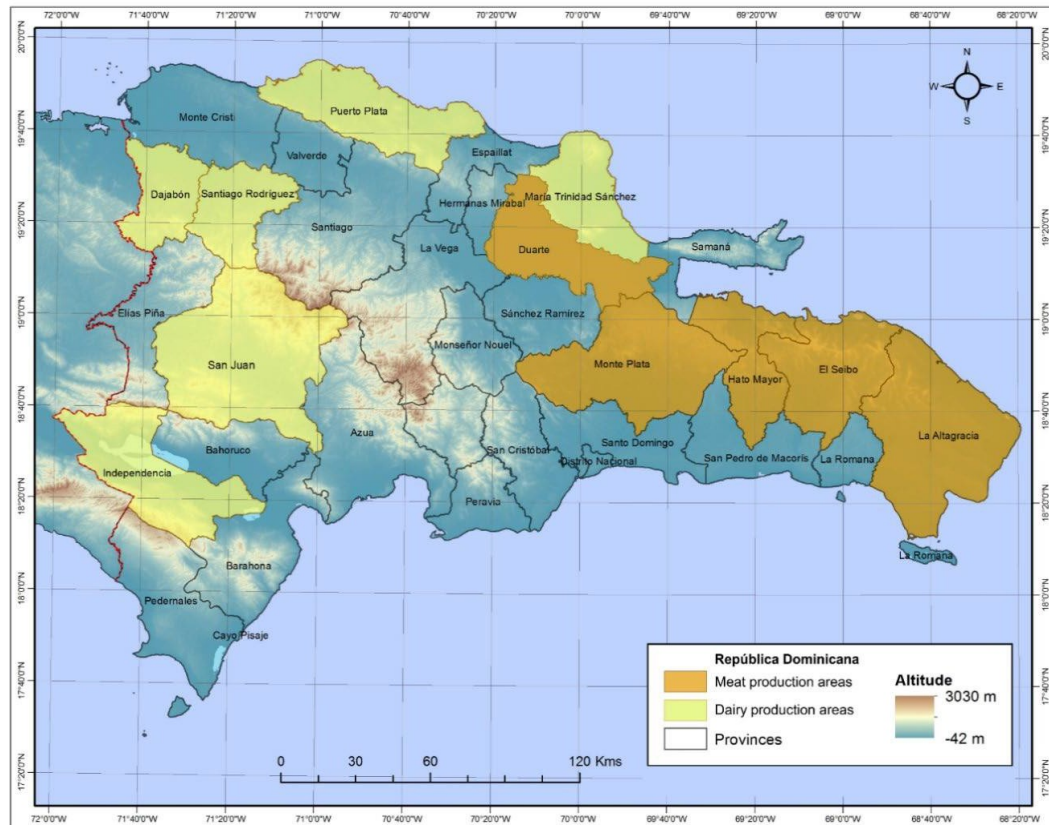
This Request for Proposals (RFP) is aimed at soliciting proposals from qualified individuals/organizations interested in implementing a final evaluation of the “Safe Agriculture / Food Export (SAFE) Project”, funded by the United States Department of Agriculture (USDA) and implemented by NCBA CLUSA. This request calls for a technical firm with demonstrated abilities to design and implement evaluation and research studies and collect data from multiple stakeholders along the Dominican beef and dairy value chains. The purpose of the final evaluation is to assess 1) project accomplishments in relation to its goals and objectives, 2) relevance of project activities, 3) signs of project effectiveness and impact, 4) efficiency of systems and processes, 5) sustainability efforts; and recommendations for USDA, project participants, and other key stakeholders for future food assistance and capacity building programs.

General Information:

Activity Title	SAFE Final Performance Evaluation
Project Name	USDA Safe Agriculture / Food Export (SAFE) Project
Agreement Number	FCC-517-2015/008-00-A
Donor	United States Department of Agriculture (USDA)
Project Duration	October 2015-March 2021
Funding	USD \$16,212,120.85 resulting from the monetization of 16,100 MT of Crude Degummed Soybean Oil (CDSO) and of 4,320 MT of Yellow Grease Tallow
Implementing Organization	National Cooperative Business Association’s (NCBA) Cooperative League of the USA (CLUSA)
Partner Organizations	Junta Agroempresarial Dominicana (JAD) GENEX Cooperative (GENEX) Texas Agricultural and Mechanical University (TAMU) AgriLife Research
Geographic Coverage	Puerto Plata, Duarte, María Trinidad Sánchez, Monte Plata, El Seibo, Hato Mayor, La Altagracia, San Juan, Independencia, Dajabón, Santiago Rodríguez and Santo Domingo provinces

2. Project Background

The SAFE project, known locally as PROGANA, is being implemented over a period of five years, in the provinces of: Santiago Rodríguez, Dajabón, Independencia, San Juan, Monte Plata, La Altagracia, Hato Mayor, El Seibo, María Trinidad Sánchez, Duarte and Puerto Plata.



Prior to the implementation of the Safe Agriculture/Food Export (SAFE) project, NCBA CLUSA conducted a baseline study about the Dominican Republic Livestock value chain and production systems and a midterm evaluation of the project, focusing on the eleven target provinces. The Project seeks to work with 14,407 individuals, out of which 13,200 are farmers and 1,207 are public and private extension workers, beef and dairy processors, decision makers, public and private stakeholder representatives, and 60 producer organizations.

The following are the specific objectives of the project:

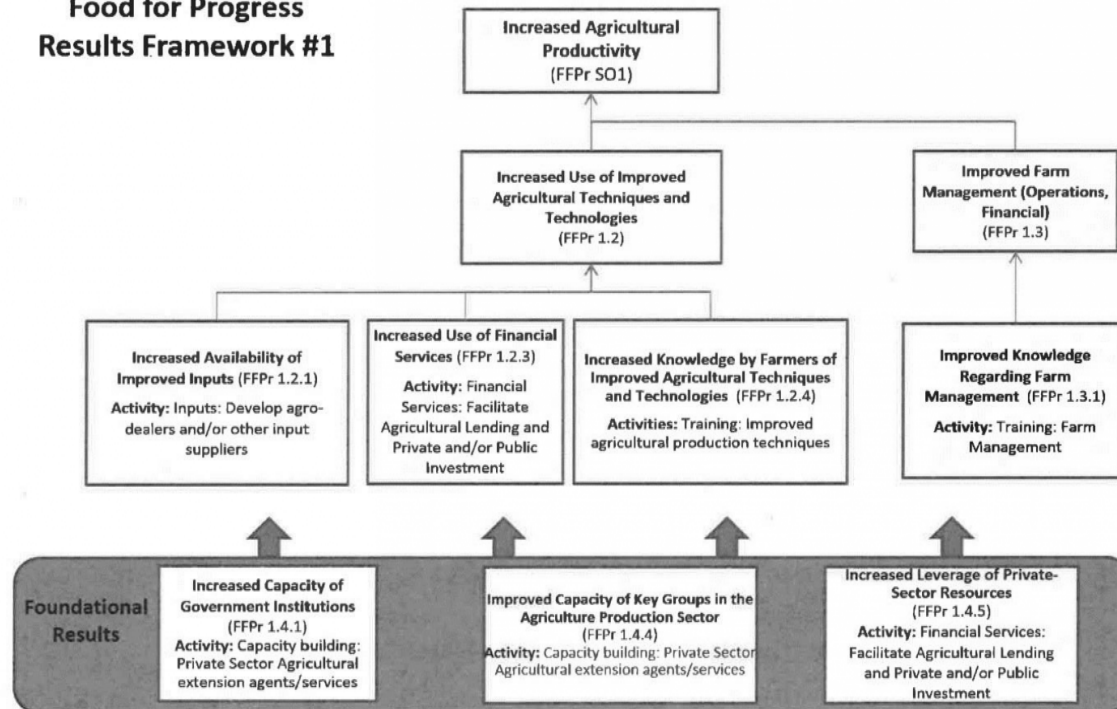
- Improve agricultural productivity in the livestock (beef and dairy) value chain by increasing the use of improved techniques and technologies; improving farm management; increasing the availability of improved inputs and use of financial services; strengthen the capacity of government institutions and key groups; and increasing the leverage of private sector resources.
- Expand trade of beef and dairy products by adding value to post-production; increasing the adoption of established standards; increasing access to markets; building linkages between buyers and sellers; improving post-harvest infrastructure; increasing the use and efficiency of post-

production processes; improving the policy and regulatory framework; and strengthening the capacity of key organizations in the trade sector.

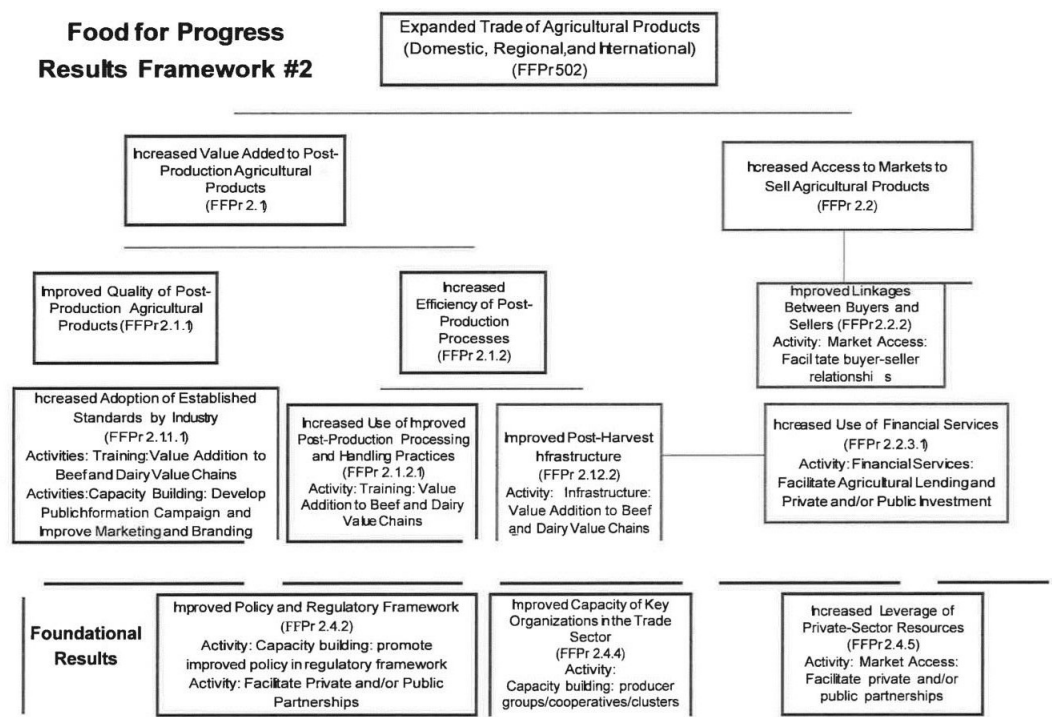
Project Results Frameworks 1 and 2

To achieve the two main objectives of the Project, twelve essential activities were considered in its design to address all the links of the Dominican livestock value chain. Each activity is disaggregated into different tasks and specific actions that together contribute to accomplishing the 57 established indicators to be achieved during the five years of the Project, and their end results. Below is the project's results framework representing the theory of change and strategic objectives linked to Food for Progress' expected results.

Food for Progress Results Framework #1



Food for Progress Results Framework #2



The Theory of Change dictates the following 12 project activities:

ACTIVITY 1: TRAINING ON IMPROVED AGRICULTURAL TECHNIQUES

The project focuses on the adoption of improved agricultural techniques through training and technical assistance on the planting of improved pastures and their pasture management techniques with training sessions on the following: animal nutrition, animal feed; milking and milk-handling practices, animal health (use of pharmaceuticals, herd vaccinations, ticks prevention and animal handling), sanitary standards for dairy and beef processing facilities (Good Manufacturing Practices (GMP), Hazard Analysis and Critical Control Points (HACCP), sanitary registration of products) and training on the implementation of sustainable livestock management.

ACTIVITY 2: TRAINING ON FARM MANAGEMENT

This activity refers to the implementation of training on agribusiness and training and application of tools and techniques to improve farmers' capacity in terms of farm administration and management in an orderly and documented way by recording the relevant information of the farms in terms of production (quantity of milk, number of cows, reproductive records), management of personnel and payroll, and farm economic management (income and expenses records). The documentation and registration of activities on the farm is a tool for making administrative and productive decisions that allow for a business approach to farm management thereby improving the levels of herd profitability.

ACTIVITY 3: FACILITATE AGRODEALERS AND OTHER INPUT SUPPLIERS

The project coordinates technical assistance activities with input suppliers (Semillas Latinas, ABODOM, Ferquido, Vitrogan, Enda Caribe, Nestle, Rica and others) to design and establish demonstration farms for management, milking parlors, and other modules of improved practices. Inputs include seeds, fertilizers, pharmaceuticals, etc. The project links input suppliers which are interested in supplying inputs to producers in the target provinces, providing technical training to extension agents on the use of their inputs, discounting and sharing the cost of the required inputs for establishing demonstration plots and providing specific technical assistance (TA) to farmers.

ACTIVITY 4: IMPROVE THE BEEF AND DAIRY VALUE CHAIN

The project provides matching grants for dairy processors and Producer Organizations (POs) to strengthen milk collection centers (MCCs) and beef processors supporting the Equivalence process. Infrastructure improvements for dairy include milk handling equipment for farmers, chilling equipment for MCCs and laboratory equipment for milk testing facilities. The infrastructure improvements in beef processing includes Sanitary Performance Standards control systems identified by the regulatory assessment and agreed to by the GoDR and private sector partners. SAFE works with the Ministry of Agriculture, Ministry of Public Health, the Administrative Ministry of the Presidency, laboratories, the DR Beef Producers Association (ASOCARNE), and slaughterhouses as private sector partners to achieve Equivalence.

ACTIVITY 5: CAPACITY BUILDING OF PRIVATE AND PUBLIC SECTOR AGRICULTURAL EXTENSION AGENTS/ SERVICES

The project will provide more support to key private sector value chain actors to establish and improve private extension systems. To date, 38 students were trained at the Technological Institute of San Ignacio de Loyola (ITESIL) as new extension agents, of which two are working on farms around the area. Also, SAFE worked with project partners to provide training to private and public agricultural extension workers. Private sector companies included ABODOM, HESATECH, NUGEGA, MULTILAB, Nestle, and Rica. Public sector organizations included Ministry of Agriculture, Vitrogan, and the Autonomous University of Santo Domingo (UASD).

ACTIVITY 6: CAPACITY BUILDING OF PRODUCER GROUPS

There are five livestock federations collaborating with the project (FEDEGANO, FEDEGANORTE, FEGACIBAO, FEDAGARES, and FEGASUR). The project has signed coordination agreements with the first two federations and with many of the cattlemen's associations geographic zone of intervention. The five federations aggregate around 90% of associated livestock farmers within the eleven target provinces. The obligations of both parties are to share resources, mainly technical support and expertise to contribute to the Project's goals. One of the SAFE Project's goals is to strengthen the capacities of livestock POs focusing on organizational, administrative, financial and technical aspects.

ACTIVITY 7: CAPACITY BUILDING FOR PROMOTING IMPROVED POLICY AND REGULATORY FRAMEWORK

Under this activity, the project is supporting the development of necessary infrastructure overseeing the control and implementation of the sanitary standards equivalent to those demanded in the U.S. for the beef sector that are required to export beef to the U.S. market in Puerto Rico. Three main actors of the beef value chain are essential to attaining Equivalence: DIGEMAPS (General Directorate of Medicines, Food and Health Products of the MoH), the official public agency responsible for the sanitary inspection system in the Dominican Republic; the reference laboratories to be audited by the FSIS; and, the three preselected slaughterhouses (Mercarne , Agrocarne, and Suplidora de Carne A&B); at least one of which will be selected and audited by FSIS, to determine whether the MoH is operating a beef inspection system for beef that is equivalent to the U.S. inspection system. SAFE is providing technical assistance to slaughterhouses and beef farmers supplying slaughterhouses on a proposed course of action needed to achieve those standards.

ACTIVITY 8: FINANCIAL SERVICES - FACILITATE AGRICULTURAL LENDING AND PRIVATE AND PUBLICSECTOR INVESTMENT

The project provides training to financial institutions (FIs) on the financing needs of dairy farmers and processors. The SAFE project collaborates with FIs to conduct outreach to identify credit-worthy dairy producers and processors. Investment plans for small farms are developed as part of the support of the project. The project links these small farmers with financial agencies to facilitate producers' and processors' access to credit based on the result of the small investment plans supported by the project. Additionally, the SAFE project facilitates the participation of farmers and processors at exposition, trade, and finance fairs to promote available financial products.

ACTIVITY 9: TRAINING - BEEF AND DAIRY QUALITY STANDARDS

SAFE provides training to small and medium dairy manufacturers throughout the Dominican Republic. These trainings guide processors on how to improve the quality of cheese and other dairy products by

applying GMP such as the use of sanitation materials, avoidance of adulterating milk with peroxide, the use of proper manufacturing clothes (hats, boots, etc.), and avoiding product cross contamination. For beef, the project trains beef processing staff on GMP, specifically related to SPS gaps. Additional training on HACCP will be aimed at beef processors and slaughterhouses.

ACTIVITY 10: MARKET ACCESS: FACILITATE PRIVATE AND PUBLIC PARTNERSHIPS

SAFE signed a general agreement with DIGEGA that was made operational by the articulation of 26 MEGALECHE agents responsible for providing TA to targeted farmers and POs through the public extension system. In addition, SAFE works with a Consultative Technical Council (CTC) and the Equivalence Group to achieve the Equivalence certification to export beef to the USA (Puerto Rico). The approach establishes public-private partnerships to focus on the Equivalence certification (SAFE's primary result) with FSIS standards.

ACTIVITY 11: CAPACITY BUILDING - DEVELOP PUBLIC INFORMATION CAMPAIGN AND IMPROVE MARKETING AND BRANDING

The project implements a comprehensive approach to develop the use of the Seal of Quality in dairy products. To improve the quality of milk at the consumer level, the project works from the beginning of the milk value chain, training milk producers on hygienic and safe milking techniques that will improve the quality of the milk, seeking to produce Grade "A". Next, the Project trains milk processors on the requirements for the attainment of the Seal of Quality. Finally, the Project accompanies milk processors in the attainment of the sanitary registration from the Ministry of Health and the posterior attainment of the Seal of Quality through technical assistance. Several visual materials are developed and distributed along the value chain with messages about adequate production and processing practices.

ACTIVITY 12: MARKET ACCESS - FACILITATE BUYER-SELLER RELATIONSHIPS

In the dairy sub-sector, the SAFE project aims to facilitate linkages at four levels: 1) between POs/MCCs and processors; 2) between processors and individual farmers; 3) between equipment and service providers and processors; and 4) between producers and equipment and service providers. The project organizes meetings between MCCs and processors with nearby independent dairy farmers. The following interventions are currently part of the project's interventions.

Table 1: Value Chain Partners and Intervention

Value Chain Partner	Intervention
Producers	NCBA CLUSA's interventions with producers include training 3,271 dairy and beef producers on improved agricultural techniques and technologies via workshops, demonstration plots, training in farm management and the development of 3,750 small business plans for small farmers.

Processors	NCBA CLUSA's interventions with processors include: training approximately 300 dairy processing staff on milk quality and best manufacturing practices, training 140 dairy producer association members on milk collection center management, and investments in quality and production improving infrastructure. For beef, technical assistance and three audits about Sanitation Performance Standard (SPS) measures for slaughterhouses supporting the Equivalence process and training 24 beef processors staff on SPS measures.
Coops & POs	NCBA CLUSA's interventions with Co-ops and POs include the signing of coordination agreements, the development of building strategies for the federations and diagnostics of the federations, development of 24 assessments for cooperatives to determine organizational capacity and sustainability as businesses; the establishment of linkages with Peace Corps volunteers,
	multiple USAID Farmer-to-Farmer Volunteer experts, and exchanges of best practices with U.S. dairy cooperatives such as Organic Valley and Cabot Creamery to provide administrative and management support.
Input Suppliers	NCBA CLUSA's interventions with input suppliers include: organizing exchange visits for project partner suppliers with demonstration plots and training on improved inputs.
Buyers - Sellers	NCBA CLUSA's interventions to connect buyers and sellers include: facilitating the linkages between international buyers and local sellers, sponsoring the participation of local sellers at trade expos, participating in trade shows, supporting 3 beef processing companies and two dairy processors for export. Additionally, promoting a Seal of Quality for final consumers to increase demand for beef and dairy products that meet GoDR and USDA food safety standards.
Financial Services Institutions	NCBA CLUSA's interventions for Financial Services Institutions include organizing intermediation workshops between input suppliers, MFIs, and producers, sponsoring participation at credit fairs, and creating 3,750 business plans for producers and processing facilities, and providing TA to POs to develop micro-credit programs for their members to invest in beef and dairy production and quality improving technologies and practices.

Government Institutions	NCBA CLUSA's interventions for government institutions include: developing a training program for government extension agents on the dairy value chain, training on extension methodology to the government extension service, training and provision of M&E tools, 30 trainings on beef and dairy farm management, 24 trainings on artificial insemination, 24 trainings to public credit agents on farm valuation. Also, training 25 newly hired slaughterhouse inspectors from the Ministry of Health (DIGEMAPS) on the necessary measures and controls for an adequate beef inspection system and three laboratory analysts from the Dr. Defillo National Laboratory staff on how to evaluate the supporting third-party laboratories and the prevention of conflicts of interest ; the creation and follow up of the Technical Consultative Committee (CTC), strengthening of the Technical Equivalency Group and the Presidential Commission for Beef Export.
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3. Purpose and Scope of the Final Evaluation

Purpose of this final evaluation is to assess the extent to which the objectives and results of the project have been achieved compared to the baseline and midterm results, specifically to what extent the activities have contributed to increased agricultural productivity and marketing of agricultural products. Additional objectives include 1) to provide an independent, third party assessment of the project's results; 2) assessing to what extent midterm recommendations were implemented; 3) to document lessons learned; and 4) to assess the potential for sustainability.

The evaluation will aim to measure the relevance, efficiency, effectiveness, impact and sustainability of the project activities. To do this, the evaluators will address the following questions:

Table 2: Evaluation Questions:

Categories	Evaluation Questions
Relevance	To what extent has the project responded to the actual needs and interests of the target farmers, associations, groups, and other stakeholders?
	To what extent does the project integrate or strengthen the national sectoral strategy to improve production and market access?
	To what extent does the project fit into the strategies of the DR government?
	What was the added value of the project considering perspectives from key stakeholders such as USDA WA, USDA DR, POs, and implementing partners?
Effectiveness	To what extent have the expected results of the project been achieved?
	What factors have been critical to the achievement or nonachievement of project objectives?
	Has the project led the planned activities? Has it achieved the expected results?
	What adaptations, if any, were made to the project's implementation process in order to achieve project objectives and targets based on mid-term evaluation findings?
	To what extent the activity changes after midterm evaluation results and recommendations were successful in improving effectiveness and ability of the project to achieve its expected results?
	What were the planned and unplanned outcomes that can be attributed to the project?
	What are the evolutions of the project indicators?
	Has the implementation process (approach - methodology) been effective?
	What is the evidence and estimate by how much agricultural productivity and the marketing of agricultural products have been improved through project actions?
	To what extent did the Livestock Farmer Field School methodology contribute to improved agrobusiness management, production and quality compared to traditional adult education methodologies?
	To what extent did project activities prepare stakeholders to participate in virtual activities versus in-person as a result of the global pandemic from the novel coronavirus COVID-19?

	To what extent did stakeholders benefit from the project's attempts to provide virtual trainings as a result of the pandemic? To what extent did the technical assistance received by beneficiaries improve the management of their agrobusinesses, production and quality?
	To what extent did beneficiaries adopt the project's improved practices and technologies and improve their agrobusiness's management, production, and quality?

Efficiency	- To what extent, appropriateness, and functionality have the various units / levels of management and coordination (grants, project staff, M & E, local committees, USDA/W, USDA/Santo Domingo and others) supported the implementation of the project? - To what extent were the size and composition of the teams appropriate to the strategies? - To what extent do the various project activities support each other? - To what extent has the process of project implementation including finance and administration optimized time and resources?
Impact	- What was the impact of the project on: ➤ Increased household income ➤ Increased agricultural productivity ➤ Increased market access and expanded trade ➤ Increased quality of agricultural products ➤ Increased public and private extension services - How does the beneficiaries' perception of the project's achievements, especially the increase in productivity and income vary across value chains and regions? - What is the legacy of the project? Organize achievement categories from most significant impact to least significant impact. - Which activities were the most successful and the least successful? Why? Breakdown by intervention / activity. - To what extent have beef and dairy ranchers' capacity to respond to on-farm shocks and daily activities improved as a result of the project, and why? - How has the project's activities strengthened local producer organization's governance, member services and equity, as well as incomes?
Sustainability	- To what extent have local actors (JAD, cooperatives and farmers' organizations, MCCs, Slaughterhouses, local government and civil society groups) been involved in the management of the project? - Which local counterparts have increased their capabilities to continue with the project's actions, and why?

	• Which partnerships were the strongest and why? • What is the probability that these actors will be able to provide succession? • Are the techniques and technologies used in the project easy to maintain locally? To what extent are the conditions for local control of these techniques and technologies guaranteed? Are people facing any additional challenges in light of the pandemic? Prioritize activities to continue after the project closes from most likely to least likely. • To what extent do the project interventions support and stimulate the local economy? When possible, consider adding tools to get insight on quantifying the project's impact on the local economy. • Which of the following project impacts are likely to be sustained and/or scaled-up after the project closes? ○ Increased household income
	○ Increased agricultural productivity ○ Increased market access and trade ○ Increased quality of products • Identify and explain short and mid-term challenges to sustain program results, and what actions could be taken before the end of the project to mitigate those challenges, if any. • To what extent are local government actors likely to achieve FSIS equivalence and continue strengthening the food safety inspection system? • To what extent did modifying the traditional training methodology to the methodology in the "Collective Efficiency Schools" permit improved learning and application of the concepts? •

The successful evaluator will lead the entire evaluation process from design to report writing. NCBA CLUSA staff will provide logistical and other administrative support. Key activities will include:

- Review project documents and other published and grey literature related to the project. This includes the project's internal documents e.g., work-plan and strategies as well as relevant external documents including, but not limited to, national policies and regulations, special studies carried out by other agencies, etc.
- Develop study design and methods that will have a balance of quantitative and qualitative techniques, analysis of secondary data, observations, and document reviews.
- Identify and select study participants from the sampling frame provided by the project staff. The sampling frame will include all the beneficiaries of both value chains from all the regions.
- Develop, edit and finalize data collection tools e.g., household survey questionnaire, PO survey questionnaire, and key informant interview and focus group guides.
- Develop data collection guide specifying data collection and management structure, field schedules and data quality assurance methodology.

- Train field supervisors, key informant interviewers and focus-group facilitator on the methods and processes.
- Perform quality assurance during design, testing, fieldwork, data entry, data analysis and reporting; • Prepare study report
- Present findings, conclusions and recommendations (in both written report and PowerPoint formats).

Project evaluation activities must not threaten the health of the evaluation team, project staff, participants, or the public. Furthermore, evaluators must comply with local health ordinances to protect public health (for example, wearing face masks that cover their nose and mouth, practice social distancing, etc.).

4. Methodology

In adherence to RFP requirements, the final evaluation will be conducted by an independent external evaluator that will be selected by a procurement committee. The project's M&E Specialist will be the lead NCBA CLUSA representative, however all project personnel will be expected to contribute to the evaluation by providing information, assisting wherever feasible, and helping to determine any appropriate project corrections to be made and implemented as determined by the evaluator.

The evaluation team will propose a robust study design that will involve both quantitative and qualitative methods to collect and synthesize information in providing detailed answers to the specified evaluation questions related to relevance, effectiveness, efficiency, and sustainability dimensions. Achievement in key project outcomes will be determined by comparing target value with actual accomplishment. Change in key outcome indicators will be assessed by comparing baseline values with the findings of the final evaluation. This will be a non-experimental pre-post design. Baseline and midterm information on outcome indicators will be compared to final information to assess the extent and direction of change. The baseline study did not include a control group, and therefore it will not be feasible to apply experimental or quasi-experimental designs.

The baseline study was conducted in July-August 2016 before the start of the project activities. The objectives of the baseline study were primarily to establish baseline values for the outcome indicators and identification of activities and strategies for dairy and beef value chains. Methods included a survey of a representative sample of 505 farms, structured and semi-structured interviews with dairy distributors, small beef processors, financial institutions, public regulatory agencies, private input suppliers, and farmers and PO officials. The midterm evaluation was conducted between January and March 2019 to determine the effectiveness and impact of the project to date and provide recommendation for any necessary implementation corrections to ensure the project achieves its stated objectives.

Data Collection: Data will be collected from organizational and individual level beneficiaries and market participants e.g., producer organizations, individual and organizational level processors, buyers, individual beneficiaries, government officials, financial institutions and so forth. NCBA CLUSA will provide sampling frame and other necessary support to the evaluation team e.g., literature to be reviewed; project briefing that will include context, activities and indicators; and briefing on stakeholders and beneficiary groups. There will be time spent in the SAFE project office in Santo Domingo and in the field. The evaluator and SAFE management staff will develop a more detailed travel schedule based on the evaluator's meeting requirements prior to arrival in country, if international. Data collection strategy and logistics will be adjusted considering the evolution of COVID-19 at the time of this evaluation. The safety of the evaluation team, beneficiaries and all staff should always be prioritized by complying with the recommendation of health authorities, respecting physical distancing and wearing masks as appropriate.

- **Sampling:** Individual farmers will be selected using multi-stage cluster sampling methods. Proportionate random technique will be used to select males and females from each sub-cluster. Beef and dairy will be the first level cluster. Second and tertiary level cluster will be determined based on the geographic spread. The sample selected for the final evaluation will closely match the study samples of baseline and midline. For the quantitative data collection e.g., focus group discussion and key informant interviews purposeful/availability/ snow-ball sampling methods will be used.

Table 3: Illustrative Sampling and Data Collection Method

Value Chain Actor/Partner	Selection Method	Data Collection Method
Direct and indirect beneficiaries	• Use project's beneficiary listing as a sampling frame • Treat each region as a stratum. • Determine the sample size for each region utilizing appropriate sample size estimation formula. • Select sample randomly from each stratum.	Household survey to capture quantitative information M&E report and other project document review

Federations, Associations, Cooperatives, and POs	Quantitative Data • Use project's associations and POs listing as a sample frame • Treat each region as a stratum • Determine the sample size utilizing appropriate sample size estimation formula. • Apply stratified random sampling methods to select participants from each region. Qualitative Data • Use of availability and snow-ball sampling method to select focus group participants.	Document reviews Structured surveys to capture qualitative data Focus group discussion to capture qualitative information.
Agro-dealer and input suppliers	Quantitative Data • Census instead of sample as the number of is manageable. Qualitative Data • Use of availability and snow-ball sampling method to select focus group participants.	Document reviews Structured surveys to capture qualitative data Focus group discussion to capture qualitative information.
Government officials (local and national)	Purposeful and availability sampling method	Document reviews Key informant interviews
MCCs, Beef & Dairy Processors	Quantitative data • Census instead of sample as the number of is manageable. Qualitative data • Availability and snow-ball sampling method to select focus group participants.	Document review Structured survey to collect quantitative data Focus group discussion to capture qualitative information

Data Analysis: Data will be analysed at the regional and project level. The regional level analysis will include exploration as well as explaining of the emerging themes and concepts within each value chain. Project level analysis will involve putting the emerging themes and concepts and explanatory factors from all the regions together.

Quantitative data will be analysed using SPSS or similar statistical solutions. The analysis will involve descriptive analysis that will be presented in tabular/chart formats. Within region and across region analysis will be conducted for each indicator and participant category. The evaluation team will develop a code book that will include codes for location, participant type, questions and response categories.

Analysis of qualitative data will follow the framework of data reduction, data visualization, and conclusion drawing and verification. Data reduction phase will include selecting, focusing, simplifying, abstracting, and transforming the data that appear in written-up field notes or transcripts. All the field notes will be transcribed first in the local language and then will be translated in English. Findings from the document review will be noted in the document summary forms. Data will be presented in visual format that will help conclusion drawing and verifications. Finally, the team will draw conclusions based on regularities, patterns, explanations, causal flows, and propositions.

5. Addressing Limitations

Due to the complexity of different components of the project and the geographical location of its activities, opportunities for errors exist. The evaluation team is expected to be aware of such complexity and develop strategies to minimize opportunities for the errors. The evaluation team will develop quality control systems, including developing detailed data collection guides and overseeing field data collection.

This evaluation will heavily rely on secondary performance information reported in quarterly and annual reports. The quality of performance data will affect the accuracy of projected trends. The evaluation team should check the validity and the reliability of performance data before analyzing it.

Primary data collected from beneficiaries may reflect the opinions of the most dominant groups without capturing the perceptions of less vocal groups. The evaluation team should take this into account and make sure that all parties are freely expressing their views. The evaluation team will mitigate this potential oversight by organizing focus groups based on the need to ensure that participants speak freely during discussions.

6. Deliverables

- Inception report that will include methodology, sampling approach, data analysis, field procedures. USDA will publish evaluation reports in the future and final copies of reports should be free of PII and otherwise ready to publish. The evaluator will be asked to sign the attached waiver with the final report.
- Data quality assurance plan and method.
- Data collection and analysis tools: Set of questionnaires, formats, and Excel spreadsheets used to collect and analyze data, and their implementation guidelines.
- Data files: raw field notes, transcribed notes, tabulated data.
- Weekly Progress Reports: A written and/or electronic report of the evaluation's progress made in the field covering key scheduled activities, completion status and found constraints regarding data collection.

- Initial presentation: A PowerPoint presentation on results and conclusion of the evaluation. The presentation should not be more than 15 slides.
- Submission of Draft Evaluation Report: The team will submit a draft report to the NCBA CLUSA key staff (Project COP and M&E Specialist; and Program Manager at HQ) and USDA Analyst, who will provide comments for revision.
- Final Report: A written and electronic document that includes an executive summary, table of contents, methodology, findings, conclusions, lessons learned and recommendations. The evaluator will collect and report data on all relevant performance indicators. The report will also include annexes that will have all custom and standard indicators with disaggregates and updated values in comparison to baseline values. All the personal identifying information must be scrubbed in the final version of the report. The report will be submitted in English with an executive summary in Spanish and should include a database with all collected information and an analytical framework. The evaluation should assess:
- A 2-3 page stand-alone brief describing the evaluation design, key findings and other relevant considerations. It will serve to inform any interested stakeholders of the final evaluation and should be written in language easy to understand by non-evaluators and with appropriate graphics and tables.
- Final presentation in Spanish: A PowerPoint presentation on definitive results and conclusion of the evaluation to the project staff and select local stakeholders.

Evaluation Management and Coordination

Per the requirement of USDA policy, this evaluation will be conducted by independent third-party evaluators. NCBA CLUSA will provide logistical support that will also include inviting stakeholders for the meetings. Evaluators will present methodology and findings to USDA officials and NCBA CLUSA team. Draft report will be shared with USDA for their review and comments. The report will be finalized after the approval from USDA.

All final versions of international food assistance evaluation reports will be made publicly available. Evaluators shall provide a copy of the evaluation reports that is free of personally identifiable information (PII) and proprietary information. Final versions of evaluation reports ready for publication should be accessible to persons with disabilities. For guidance on creating documents accessible to persons with disabilities, please see the following resources:

<https://www.section508.gov/create/documents>

<https://www.section508.gov/create/pdfs>

7. Audience and Intended Use

This evaluation will help measure project performance, effectiveness, efficiency, impact, sustainability and relevance of the project's approach in achieving its stated goals. Performance results, lessons learned, and the success of the supported activity are to be shared with USDA to inform future activity

design. The audience will include all key stakeholders e.g., USDA, NCBA CLUSA, partner organizations e.g., Texas Agricultural and Mechanical University (Texas A&M), GENEX Cooperative, Dominican Agricultural Business Board (JAD), project participants, the MEGALECHE extension program from the General Livestock Directorate (DIGEGA) of the Ministry of Agriculture, the General Directorate for Medicines, Food, and Sanitary Products (DIGEMAPS) from the Ministry of Health, and the National Council for the Support of Dairy Production (CONALECHE), private sector partners, and other non-governmental organizations working in synergy with the SAFE project. Other audiences may include individuals and groups who are not necessarily engaged in the project activities but may benefit from the findings that may be published and disseminated through CLUSA website and/or presentation in national and international conferences.

8. Selection of the Evaluation Team

An outside firm/external evaluator will be selected for the final evaluation. Through this competitive process NCBA CLUSA will select an evaluation firm who has local expertise and experience evaluating agricultural and trade initiatives with similar target audiences. Major requirements for the evaluator will include:

- Demonstrated knowledge, analytical capability, language skills and experience in conducting evaluations of development programs and/or projects involving agriculture and ideally livestock, trade, and marketing in DR.
- Technical skills and capacity in the application of analytical frameworks such as conducting qualitative and quantitative surveys, involvement of stakeholders in the evaluation, and statistical analyses.
- Have knowledge of US Government projects including either USDA or USAID.
- Have experience managing or evaluating agricultural value chain projects.
- Ability to travel to rural areas of DR on difficult roads to meet with stakeholder partners.
- Budget Competitiveness.
- Fluent English and Spanish language and writing skills.
- Competency to write detailed, concise and coherent final evaluation report.
- Gender balance and cultural sensitivity.

9. Conditions of application

Consultants and companies wishing to carry out this mission must send the following items (12-point font) in the order specified below to be considered during selection:

1. Technical proposal

The technical proposal (12 pages max.) must reflect how the offeror will carry out the tasks included in the work. Candidate companies will provide a detailed plan of the specific activities, the timetable for

carrying out the mission, as well as the data collection and analysis activities. In addition, it will include a proposal for the statistical approach.

2. Financial application

The candidate companies/consultants will propose a realistic estimate of the cost of this mission, including a detailed budget and a justification of the expenditure. The budget will only contain costs that can be directly attributed to the proposed activities, with an explanation of the line items. All training costs, such as rental of premises, advance transport, etc. must be clearly articulated for each training. Applicants must present adequate administrative and financial systems to manage the funds covered by this agreement. If the candidate companies charge overhead, they will need to provide their NICRA. The maximum amount available is \$100,000.

3. Organization

The candidate companies/consultants must briefly list and describe their history, vision, objectives, legal status, ownership and management structure, current projects/services, current clients/assignors, current geographic scope and experience.

4. Personnel

The candidate companies/consultants must briefly list and describe the names and qualifications of the key personnel assigned to the assignment (the CVs of the proposed staff must be included in the Annex). The proposed team should preferably be multidisciplinary and include at least (A) a team leader for monitoring and evaluation, with extensive experience designing and implementing evaluations and analyzing the results (ex: a statistician and / or analyst familiar with the analysis of quantitative and qualitative data); Experience in the target regions is desirable; (B) an agricultural economist, a rural development specialist or a person with an equivalent level of competence, specializing in economic development and data collection activities; (C) a database and information system specialist; (d) a data entry team; and (e) enumerators.

5. Proof of Experience

Applicant companies/consultants will have to prove their experience in similar missions by providing a list of all contracts and/or cooperative agreements involving similar or related work during the last two years. Additionally, the applicants must submit a work sample and at least three reference letters from previous consultancies.

6. Legal registration

Candidate companies/consultants' engagement is subject to the consultant obtaining necessary visas and work authorization.

10. Criteria for the evaluation of the proposal

The following criteria are those under which all proposals will be judged:

1. Quality of technical approach and methodology (30%)
2. Experience in agriculture and/or livestock economics (20%)
3. Past experience of individual and/or company with USDA and/or USAID or other International Development Organizations (10%)
4. Demonstrated experience and technical skills of the team/reference letters (10%)
5. Completeness of proposal, including schedules, total budget, employee CVs, etc. (10%)
6. Cost realism, budget justification and effectiveness. Given it meets these standards, competitive budgets will receive a higher score. (20%)

11. Application Deadline

Applications must be in English and with single spacing. The pages must be numbered, and each page must contain the name of the company. Proposals must be sent by e-mail with Subject line "SAFE Final Evaluation Proposal" to NCBA CLUSA at the following address: progana@ncbaclusa.net and/or ygeadion@ncbaclusa.net

Please include the name of the person in your organization sending the application, as well as the phone number, fax number and e-mail address. Applications must be submitted by December 15th, 2020 at 5:00 pm EST at the latest.

If you need more details, please contact our offices by email at progana@ncbaclusa.net and/or ygeadion@ncbaclusa.net. NCBA CLUSA reserves the right to subsidize all or none of the applications submitted and / or to modify the terms of reference / geographical areas before the project begins.

Table 4: Approximate Timeline of Events

Activity	Deadline
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Develop a scope of work for the evaluation and list of required qualifications for the external evaluation team, publish a request for proposals	Three months prior to evaluation (November 2020)
Review applications	Two months prior to evaluation (December 2020)
Select external evaluation team/consultants	One/Two months prior to evaluation (December 2020/January 2021)
Work with the external evaluation team to finalize project evaluation TORs and agree on evaluation methodology	One month prior to evaluation (January 2021)
Field work – data collection (interview, focus groups)	3-4 weeks in February/March 2021
External evaluators prepare analysis documents and reports	One month after the evaluation activities (April 2021)
Project team (COP, senior leadership in HQ, M&E Specialist, technical teams where appropriate) review evaluation report and analysis, as well as lessons learned and other documentation	One month after evaluation (April 2021)
Submit final evaluation report to USDA	May 2021
Presentation of findings to stakeholders	One month after evaluation (May 2021)