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NICARAGUA

SUSTAINABLE LIVESTOCK MANAGEMENT IN NICARAGUA

(NI-T1237)

DONORS MEMORANDUM

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PROJECT SUMMARY
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Cattle and crop farming combined account for 13% of GDP, 45% of the value of the country's agricultural output, and 30% of total exports. Despite the sector's economic importance, a number of obstacles prevent it from developing to its full productive potential, including low-tech extensive ranching systems, which, among other things, lead to deficient nutrition. The incidence of disease and pests also suppresses productivity and quality, undermining economic sustainability and access to high-value markets. The extensive livestock management system also adopts an extractive approach and is the primary cause of the loss of tree cover in the country, undermining its natural resources, particularly water and soil—the fundamental productive inputs underpinning its sustainable development. Finally, climate variability and variability in international commodity prices are also factors that significantly impact livestock production in the country.

The project seeks to develop a segregated bovine production system (SBPS) that will encourage the adoption along the entire meat production chain (farms, transportation, and industrial facilities) of the international standards required by export markets for meat products. It will also introduce the use of technologies and practices to support traceability and environmental sustainability, which will improve climate change adaptation and reduce environmental impact (better waste management, use of biodigesters, water harvesting and silvopasture systems, among other measures).

Official regulations governing the SBPS model in the areas of meat hygiene, health, quality, and safety were recently adopted by the competent authority, the Instituto de Protección y Sanidad Agropecuaria [Agricultural Health and Protection Institute] (IPSA). Thus, the project will help to lay the groundwork for operation of the SBPS and generate knowledge and expertise to demonstrate its operational and economic feasibility, allowing for replicability. The project also faces the challenge of showing that it can make medium-sized livestock farmers more competitive and improve environmental management in the sector.

To pilot the model and strengthen the SBPS, the project will rely on the support of a public-private partnership between IPSA, the government agency in charge of the bovine traceability system (BTS), and the Comisión Nacional Ganadera de Nicaragua [National Livestock Commission of Nicaragua] (CONAGAN), a private industry association. The effort will be further supported by local financial entities that also hope to contribute to the sector's development.

In terms of innovation, the project's support for implementing a semi-intensive segregated-farm bovine production model led by the private sector and coordinated with the public sector represents a first for Nicaragua and Central America.

The main expected outcomes include the following: 300 farms certified under the SBPS; farms see a 10% increase in average annual sales revenue; a 25% increase in average annual beef output in kg per hectare, a 20% rise in milk production per head, at least 10,000 tCO₂e removed/sequestered, at least 10% of certified farms are owned and/or managed by women, and 6,000 ha. conserved through silvopasture systems.

ANNEXES

Annex I	Results Matrix
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INFORMATION AVAILABLE IN THE TECHNICAL DOCUMENTS SECTION OF THE MIF PROJECT INFORMATION SYSTEM

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ABBREVIATIONS

BTS	Bovine traceability system
CANICARNE	Cámara Nicaragüense de Plantas Exportadoras de Carne Bovina [Nicaraguan Chamber of Beef Exporting Plants]
CONAGAN	Comisión Nacional Ganadera de Nicaragua [National Livestock Commission of Nicaragua]
CUE	Código único de establecimiento [Unique facility code]
DNA	Diagnostic needs assessment of the executing agency
FDL	Financiera FDL (a finance entity)
FECESCABO	Federación Centroamericana del Sector Cárnico Bovino [Central American Beef Federation]
FUNDESER	Financiera FUNDESER (a finance entity)
ha	Hectare
IPSA	Instituto de Protección y Sanidad Agropecuaria [Agricultural Health and Protection Institute]
kg	Kilogram
RFID	Radio-frequency identification
SBPS	Segregated bovine production system
tCO ₂ e	Tons of carbon dioxide equivalents

EXECUTIVE SUMMARY
SUSTAINABLE LIVESTOCK MANAGEMENT IN NICARAGUA
(NI-T1237)

Country and geographic location:	Nicaragua, specifically the municipios of Boaco, Camoapa, Río Blanco, Matiguás, Paiwas, and Mulukuku.		
Executing agency:	Comisión Nacional Ganadera de Nicaragua [National Livestock Commission of Nicaragua] (CONAGAN) ¹		
Focus area:	Climate-smart agriculture		
Coordination with other donors/IDB Group operations:	<p>This operation was coordinated with: (i) the Instituto de Protección y Sanidad Agropecuaria [Agricultural Health and Protection Institute] (IPSA),² the State executing agency for the bovine traceability project under the Sustainable Agricultural Productivity Development Program (loan 2738/BL-NI); (ii) “Credit Access for Rural Productive Chains” (NI-L1080); and (iii) the IIC, to explore potential business opportunities.</p> <p>This initiative also coordinated with the PROGRESA and GANE programs.</p>		
Direct beneficiaries:	300 medium-sized livestock farmers, 50 private providers of technical and veterinary services, 60 livestock transporters, users of the bovine traceability system in general, and cooperatives and municipal governments in the project’s area of influence.		
Financing:	Technical cooperation:	US\$829,062.00	50.29%
	Total MIF contribution:	US\$829,062.00	-
	Counterpart:	US\$819,664.00	49.71%
	Cofinancing (if any; include a separate line for IDB cofinancing, as applicable)	-	-
	Total project budget:	US\$1,648,726.00	100%
Execution and disbursement period:	48 months for execution, and 54 months for disbursement.		
Special contractual conditions:	<p>The following will be conditions precedent to the first disbursement: (i) present evidence that the accounting software has been updated for dual currency bookkeeping;³ and present to the MIF’s satisfaction: (ii) an accounting manual containing the general chart of accounts, including the project chart of accounts; (iii) a signed agreement</p>		

¹ <https://conagan.wordpress.com/>

² <http://www.ipsa.gob.ni/>

³ The MIF contribution will be disbursed in dollars.

between CONAGAN and CANICARNE⁴ stipulating the roles and financial and operational obligations of the parties; and (iv) a signed agreement or addendum between CONAGAN and IPSA establishing the roles and responsibilities of the parties under this project.

**Environmental and
social impact review:**

This operation was screened and classified as a category “C” operation according to the requirements of the IDB Environment and Safeguards Compliance Policy (operational policy OP-703) on 4 November 2016.

**Unit with disbursement
responsibility:**

Country Office in Nicaragua.

⁴ Cámara Nicaragüense de Plantas Exportadoras de Carne Bovina [Nicaraguan Chamber of Beef Exporting Plants].

I. THE PROBLEM

A. Description

- 1.1 Nicaragua has the largest area of agricultural land in Central America (5 million hectares). According to data from the Fourth Livestock Census (2011), the area used for livestock farming occupies 3.2 million hectares of agricultural land. It also recorded 136,667 cattle farming operations, with a total herd size of 4.2 million head, up 55.7% from the headcount 10 years earlier. Nicaragua raises primarily grass fed livestock that is free of foot-and-mouth disease.⁵ Its production system is 90% based on dual purpose cattle (milk and beef), with milk production providing the regular revenue for producers.
- 1.2 Cattle and crop farming combined provide 530,000 direct and indirect jobs in Nicaragua and account for 13% of GDP, representing 45% of the value of the country's agricultural output and 30% of total exports. Despite the sector's economic importance, a number of obstacles prevent it from developing to its full productive potential, including low-tech extensive ranching systems, which, among other things, lead to deficient nutrition. The incidence of disease and pests also suppresses productivity and quality, undermining economic sustainability, competitiveness, and access to high-value markets.
- 1.3 The extensive livestock management system also adopts an extractive approach and is the primary cause of the loss of tree cover in the country, undermining its natural resources, particularly water and soil—the fundamental productive inputs underpinning its sustainable development. The production system, dependent as it is on low-nutrient natural pastures and without paddock division, increases soil compaction because of trampling, generating losses by adversely affecting the micro-organism habitat and pasture productivity. This system can only cope with low animal loads per area unit, in turn causing soil degradation, requiring increasingly more land area, and resulting in further deforestation and environmental impact.
- 1.4 In addition, the supply of meat products is not sufficiently differentiated and lacks a comprehensive traceability system to ensure proper epidemiological surveillance from calving to slaughter. Although the bovine traceability system (BTS)⁶ has identified and recorded 54% of livestock farms, 40% of cattle (with a plastic ear tag) and 60% of slaughtered steers, it has not been able to precisely or quickly coordinate the records and movement of each animal or the nutrition and animal health data in its information system. It also does not have efficient logistics for supplying⁷ and delivering ear tags, so many producers do not use them. With the type of visual tag used, there is also a high degree of errors in reading and manually recording them, which fails to provide certainty about age, animal health, or volumes of supply. The BTS therefore needs to become more accurate, to make it the linchpin for all activities related to livestock farms, so that they can be audited

⁵ <http://www.oie.int/animal-health-in-the-world/official-disease-status/fmd/list-of-fmd-free-members/>

⁶ Financed under the Sustainable Agricultural Productivity Development Program—loan 2738/BL-NI. *Informe Final Sistema de Trazabilidad Bovina de Nicaragua, Diagnóstico y Estrategia* [Final Report. Bovine Traceability System of Nicaragua, Diagnostic and Strategy], Daniel Garin and Jorge Mendoza, December 2015.

⁷ They are provided by IPSA or authorized technical personnel.

at any time and can instill confidence in everyone involved (producers, the sector, and the market).

- 1.5 Another drawback of the BTS is that producers are not yet seeing its commercial advantages for them to continue with the activity. Moreover, there is no production and control system to ensure a high-quality, tender, traceable product (steer) that, by 30 months of age, reaches hoof weights of over 400 kg, all of which are conditions the international market demands.
- 1.6 The meat sector value chain⁸ comprises primary and industrial livestock production. The primary phase has four activities: (i) farm with breeding and milking; (ii) farm with breeding, milking, and growing; (iii) farm with breeding, milking, growing, and fattening; and (iv) fattening. It is composed primarily of **breeders** (85%, approximately 90,000 ranchers) in the dual-purpose production system (milk and beef production) who raise calves until weaning (7 months of age) to an average weight of 140 kg, then sell them to **growers**, who bring calves up to 320 kg and then sell them to **fatteners**, who bring them up to 400 kg, at which point they are sold to industrial slaughterhouses. Breeders can raise calves on the same farm or a separate property. The grower can be another producer or an industrial slaughterhouse; in the latter case, the animals are kept in their feed lot until finishing. The breeder can also be the grower (10% of breeders), and the grower can also be the fatterer (10% of growers). There are around 467 **rural and municipal slaughterhouses** that process the production artisanally and 5 **industrial slaughterhouses** or **processors** belonging to CANICARNE, which handle the slaughtering, processing, and sale. These industrial slaughterhouses (processing 83% of heads) are certified by the United States Department of Agriculture to export to that country and handle sales in the regional and international market.
- 1.7 The variability and intensity of climate-related factors experienced in recent years (drought, heat, and rainfall), a downturn in international meat prices and operational shortcomings,⁹ deficient coverage, and weak uptake and recognition of the BTS mean that the livestock sector urgently needs to introduce better regulations on production and capacity building to help produce higher-quality meat with less environmental impact.

II. THE INNOVATION PROPOSAL

A. Description

- 2.1 The project's objective is to develop a pilot scalable segregated bovine production model to enable medium-sized producers to become more competitive and boost their revenue through more stable sales relationships in the chain, and to enable the Nicaraguan livestock sector to access high-value international markets and become environmentally sustainable. Since this is a new model, the challenge for the project is to demonstrate during execution the concrete benefits in terms of productivity gains, environmental management, and returns.
- 2.2 This could be feasible by implementing a segregated bovine production system (SBPS) while encouraging segregated farms under such a system. On one hand, segregated bovine production requires animal traceability from birth to slaughter;

⁸ Prepared by CONAGAN.

⁹ Insufficient coverage of animal identification and appropriate technology to expedite herd movement tracking, insufficient movement records, use of different procedural criteria, and other factors.

- on the other, the model aims to improve pastures and practices that optimize feeding, preventive and curative animal health care, and natural resource management. The project will identify calves with electronic and plastic ear tags, from the first month of age and will add their record to the BTS giving: (i) the producer, better control over inventory and movement and improved security against rustling (cattle stealing); (ii) the regulatory entity, better control to identify epidemiological outbreaks and use of prohibited or restricted substances; and (iii) the industry, greater certainty on origin, age, and animal health.
- 2.3 The main expected outcomes include: 300 farms certified under SBPS, a 10% increase in the average annual sales revenue on farms, a 25% increase in average annual production in kg of beef per ha., a 20% increase in milk production per head, at least 10,000 tCO₂e removed/sequestered, at least 10% of certified farms are owned and/or run by women, 6,000 ha. conserved through silvopasture systems, and an increase in milk production of at least 20% from implementing good dual-purpose livestock practices.
- 2.4 The project will enable the National Livestock Commission of Nicaragua (CONAGAN) to pilot a segregated farm model under recently adopted regulations,¹⁰ with a view to its subsequent replication on other member cooperative farms. These regulations call for the traceability of the entire herd, implementing production and reproduction records, certification of herds that are free of tuberculosis and brucellosis, and complying with animal welfare standards and good livestock practices. This model will establish the foundations and conditions for producing the first 3,600¹¹ calves and steers according to the health requirements and standards of preferential markets. It will also strengthen the BTS operationally and strategically by broadening its coverage, providing feedback, and showcasing the productive and commercial benefits of its implementation.
- 2.5 The project will support the establishment of a public-private partnership between the Agricultural Health and Protection Institute (IPSA)—the government agency in charge of the BTS and the SBPS—and CONAGAN, to facilitate piloting the model, certification of technical and training staff, licensing of private service providers, and timely feedback on the two systems' regulatory frameworks and instruments. Training and specialized technical assistance will be provided to veterinarians and agricultural engineers, who will be licensed by IPSA to provide segregated farm and traceability certification services. The project will also support the incorporation of modern technology in the bovine traceability process in the form of electronic ear tags for radio-frequency identification (RFID), as well as digitization of on-farm process records.
- 2.6 Implementing the segregated farm model will: (i) help to change several characteristics of the extensive livestock management system by incorporating improved pastures and paddock division, which will intensify feeding and improve indicators on animal load per hectare; (ii) introduce preventive and curative health management plans, which will reduce the calf mortality rate from 4% to 2%; (iii) incorporate more efficient traceability technology at the primary production level (an ear tag that is not readily traceable is currently used); (iv) introduce climate change adaptation measures, such as environmentally sound integrated

¹⁰ Executive Resolution 016-2015, Creation of the Segregated Bovine Production System.

¹¹ 300 certified farms with an average of 25 cows being milked gives a total of 7,500, 50% (3,750) are expected to be males, of which approximately 3,600 will be on certified farms.

pest management, use of biodigesters to treat waste (together with production-related and family use), and water catchment systems; and (v) promote conservation or establishment of 6,000 hectares of silvopasture systems, which will contribute to carbon capture, prevent soil erosion, and improve biodiversity overall.

- 2.7 **Innovation.** The project's support for implementing a semi-intensive segregated-farm bovine production model led by the private sector in partnership with the public sector and other actors in the chain represents a first for Nicaragua and Central America. Notwithstanding the very recent adoption of the executive resolution creating the SBPS, this project is a prime opportunity to test and demonstrate its feasibility as well as to boost producer competitiveness. This model is unique in that it is not intensive like the models used in South America and it tries to gradually move away from the traditional extensive model. It also is very structured and articulated with the value chain, which improves the business and income opportunities while demonstrating the sector's commitment to greener, more sustainable development.
- 2.8 The segregated farm model seeks, starting at the primary production level, to develop a supply of traceable, differentiated meat products ready to meet the commercial demands of high-value, higher-priced export markets,¹² in addition to market diversification. It will contribute operational, strategic, and policy solutions to the BTS currently under implementation. This initiative will begin the process of transforming cattle farming in Nicaragua into more intensive, climate-smart operations with a focus on enhancing quality and productivity while reducing adverse impacts on the environment.
- 2.9 The project's target group comprises organized medium-sized livestock producers who own dual-purpose farms and are ready to transition from extensive livestock management to segregated farming systems that produce traceable bovine products and are willing to strengthen their climate change resilience (evidenced by the application of at least one climate change adaptation good practice). The geographic area targeted by the project contains 17% of the national herd and encompasses 6 of the country's 20 closest and most livestock-intensive municipios, namely: Camoapa, Boaco, Matiguás, Río Blanco, Paiwas, and Mulukuku. This area has a fairly well-developed relationship with the meat industry, with a network of milk buyers and better infrastructure and accessibility conditions. There are approximately



¹² Europe, North America, and Asia.

10 livestock farmers' organizations operating in this area, some of which will be selected to participate in the project.

- 2.10 **Eligibility criteria for organizations that could take part in the project:** (i) legally incorporated livestock farmers organizations with a presence in the project's area of influence whose main production and commercial operations are for the benefit of their members; (ii) can demonstrate at least 10 years of continuous operations in activities that include livestock farming and its byproducts; (iii) have at least 50 active members; (iv) collectively market their output and have productive infrastructure (collection centers) where members can transfer their products; and (v) have technical staff (veterinarians and agricultural engineers) to provide technical assistance services to their members. CONAGAN will draw up a draft agreement among the organizations that stipulates the roles and responsibilities of the parties and includes the responsibilities to the project of the beneficiary members of the organization (see paragraph 2.10). The draft agreement will require the Bank's no objection.
- 2.11 **Selection criteria for farms and producers that will participate in the project:** The project will benefit primary producers (breeders, growers, or fatteners), must be in the project's action area, and must be easily accessible. The producer must: (i) be a member of a producers' organization or a supplier in the organization's business chain; (ii) preferably, be medium-sized, according to the parameters contained in the 2011 National Agricultural Census (farms between 100 and 250 *manzanas* [70–175 ha] in the project's action area); (iii) have a herd of at least 50 cows with at least 25 producing, with low yields (3.5–4 liters per cow per day and average daily output of 100–200 liters); (iv) have a unique facility code issued by the traceability system; (v) have certain basic infrastructure (corral, trough, milking shed); and (vi) demonstrate care for the primary forest.
- 2.12 In exchange, producers undertake to register their herd in the BTS **within six months** of joining the project and must be prepared to make infrastructure or technology upgrades¹³ **before the end of the first year** of project operations, either with their own funds or through a loan from a financial institution,¹⁴ for which the project will assist with the arrangements and contact. Producers will also undertake to keep a record of costs and income from adopting the model, so as to determine its economic feasibility. The project technical officer will track that information. The decision as to whether to grant the loan will belong exclusively to the finance entity, with the MIF and the executing agency bearing no responsibility for this.
- 2.13 **Beneficiary profile.** For the most part, producers live on their farms with their families, although many have houses at municipal seats; they may be members of—or milk suppliers to—a cooperative with collection centers, which facilitates sale of their output.
- 2.14 The livestock are **crossbreeds** and farmed in dual-purpose operations: daily milk production and breeding low-quality calves. Milk production brings revenue of between 25,000 and 50,000 córdobas per month from milk sales (US\$847 to US\$1,695) to cover basic farm and family needs. Farms' capacity for reinvestment depends on the sale of steers and calves on the hoof as the main source of

¹³ Biodigesters, electric fences, water supply systems, water troughs or tanks, pasture improvements, etc.

¹⁴ Fundación FUNDESER or Financiera FDL, which are project partners.

revenue, usually once a year. The majority of owners are men; very few are women (10%). Nonetheless, generational renewal will offer potential for greater participation by women.

- 2.15 **Component I: Raising awareness, dissemination, and institutional coordination of the project.** The objective of this component is to make producers in the project's area of influence aware of the concept of the segregated farm model for cattle production, the trends and requirements in high-value markets, and the potential benefits in terms of income, environmental sustainability, and development of a high-quality beef market in the medium term, as well as to lay the institutional foundations for the segregated farm model's dissemination and scale-up. Since this is a pilot project, it will be clearly communicated that this exercise will more accurately determine the production, economic, and environmental benefits. To ensure effective and efficient information disclosure and awareness-raising, the project will rely on the operational structures of organizations and cooperatives already present in the project's areas of influence.
- 2.16 The expected outcomes of this component are as follows: (i) a project communication and dissemination strategy designed and approved by CONAGAN Management; (ii) an advisory board established and functioning; (iii) 600 producers aware of the expected benefits of the SBPS; (iv) systematization of the methodology for pilot implementation of the SBPS; (v) two case studies carried out and a compilation of best practices shared on the CONAGAN website, showing the comprehensive benefits of the model adopted; (vi) sustainability and scale-up plan for the pilot SBPS model; and (vii) project closing event held to share the results and lessons learned, among other things, by means of a video to disseminate the results and impacts on farms of the pilot SBPS model.
- 2.17 **Component II: Capacity-building and implementation of the pilot SBPS model.** The objective of this component is to build the technical and veterinary capacities that will be imparted at the local level to producers by the training and assistance services for farmworkers (veterinarians and agricultural engineers) to ensure that practices are adopted that improve climate resilience and mitigate generation of emissions and deterioration of the ecosystem. To that end, it would implement health plans, traceability, non-use of banned substances, and good treatment of animals, ensuring biosafety. To reduce and displace the sources of CO₂ emissions generated by the sector, the project will encourage the appropriate management of solid and liquid waste on farms and use of biodigesters and silvopasture and pasture systems. In the silvopasture system, the livestock sector is promoting the planting of cacao, and the possibility of introducing precious wood species will be explored.¹⁵
- 2.18 The expected outcomes of this component are as follows: (i) appropriate training materials for producers; (ii) producers trained in the necessary SBPS topics to obtain segregated-farm certification;¹⁶ (iii) transporters trained in animal welfare

¹⁵ Teak, cedar, pochote, and others.

¹⁶ Only IPSA can issue the certification; the BTS is one more requirement in going for segregated farm certification. Certified farms will be inspected regularly, to verify that they continue to fulfill the requirements; failure to do so should be grounds for suspension of the certificate or a fine, pursuant to the administrative provision.

and transportation standards; (iv) on-farm technical assistance imparted to ensure compliance with segregated-farm certification requirements; (v) 300 farms certified; and (vi) training in climate change adaptation and mitigation measures: agro-ecological pasture management, implementation of biodigesters, and silvopasture systems.

- 2.19 **Component III: Formalization of SBPS marketing.** The objective of this component is to formalize business mechanisms between the producers involved in the project and the meat industry, to introduce basic regulatory standards on quality beef in Nicaragua.
- 2.20 The project will facilitate the direct sale between producers and slaughterhouses of calves or steers bred under the SBPS model, for which it will develop a standard contract that establishes incentives based on current market prices, to encourage producers to obtain certification for their farms in the short term. The expected increase in producers' sales depends on the extent to which a stable supplier relationships is bolstered and consolidated, together with a relationship of trust between producers and slaughterhouses. The market also needs to ensure a high-quality product and secure the best suppliers.
- 2.21 The expected outcomes of this component are as follows: (i) standard sales agreement for calves officially developed and formalized by the project; (ii) 300 contracts drawn up between producers participating in the pilot SBPS model and slaughterhouses; (iii) draft quality regulations on Nicaraguan beef prepared and officially submitted to the appropriate authorities; (iv) participation in the EXPICA regional trade fair; and (v) closer ties facilitated between producers and the financial system.¹⁷

B. Project outcomes, measurement, monitoring, and evaluation

- 2.22 **Key indicators to measure the expected outcomes of the project are as follows:**
- 300 farms certified under the SBPS producing better quality, safer meat for high-value export markets.
 - 20% increase in average annual sales revenue on farms because of their linkage as formal suppliers to the industry.¹⁸
 - 25% increase in average annual meat yield in kg per hectare on certified farms. (Target 25%)
 - 20% average annual increase in milk production per head.
 - 10,000 tons of carbon dioxide (CO₂e) removed/sequestered as a result of introducing climate change mitigation and adaptation measures on certified farms.

¹⁷ During project preparation, the project team held meetings with Fundación FUNDESER and Financiera FDL, which expressed an interest in taking part in the design of a financial product tailored to the sector.

¹⁸ With an intensive system, revenue may increase but costs of inputs and labor may also rise in greater measure. Therefore, the project will have to demonstrate whether or not the transition from extensive systems to SBPS systems will allow farms to become more profitable. Accordingly, it is important to maintain the controls and records that make it possible to demonstrate the model's return (see paragraph 2.11).

- 10% of certified farms are owned and/or run by women.
 - 50 technicians and veterinarians located in the project's geographic areas are licensed to operate under the BTS and SBPS.
 - 300 sales contracts drawn up between certified farms and slaughterhouses.
- 2.23 The project will design and implement a **baseline and a monitoring and evaluation system** to measure and record progress semiannually based on the outcome indicators set for the purpose and components established in the project Results Matrix.
- 2.24 The project will undergo a **midterm evaluation** after either 50% of the execution period has elapsed or 50% of the contribution funds have been disbursed (whichever occurs first). There will also be a **final evaluation**. CONAGAN has undertaken to cooperate on these, to provide such information as may be requested of it, and to facilitate such access as the Bank and the individuals designated thereby may require. Both evaluations will be financed with resources from the contribution.
- 2.25 At least three months before the end of the project execution period, CONAGAN and the Bank will organize a **closing workshop** to jointly assess the results achieved, identify additional tasks to ensure that the actions financed by the project are sustainable, and identify lessons learned.

III. ALIGNMENT WITH THE IDB GROUP, SCALABILITY, AND PROJECT RISKS

A. Alignment with the IDB Group

- 3.1 The project aligns with the IDB Group strategy on two levels: (i) the Bank's Country Strategy with Nicaragua in areas of priority and dialogue—in this instance, rural development and value chains; and (ii) the IDB Integrated Strategy for Climate Change Adaptation and Mitigation, and Sustainable and Renewable Energy. The project will also coordinate directly with IPSA, a government authority that was strengthened through the IDB operation "Sustainable Agricultural Productivity Development Program," specifically its bovine traceability component that is responsible for: (i) assigning a unique identification code to the animals (it provides and authorizes the plastic and electronic ear tags); (ii) authorizing third parties as traceability operators; and (iii) facilitating dialogue between mayors' offices and the national police to control movements. The project will use the lessons learned and guarantee coordination with IPSA through the CONAGAN-IPSA partnership previously formalized through their existing cooperation agreement.
- 3.2 Likewise, there is a potential that can be explored for alignment with operation NI-L1080 "Access to Credit in Rural Production Chains," with Banco Produzcamos (a Nicaraguan development Bank). The general objective of this operation of the Capital Markets and Financial Institutions Division (CMF) of the IDB is to increase the productivity of small and medium-sized producers in select rural value chains by providing access to credit and technical assistance to help coordinate the chain. Banco Produzcamos has set a goal of placing financing in the livestock sector, with a focus on dairy. The project could contribute to identifying potential livestock organizations, cooperatives, and/or microfinance institutions (like the ones consulted in this project, FDL and FUNDESER), which could eventually receive long-term

financing through Banco Produzcamos. Although this bank is interested in the dairy sector, it should be noted that livestock-raising in Nicaragua is dual purpose.

B. Scalability

- 3.3 The project is designed to be scalable on two levels: At the national level via the CONAGAN platform, by transferring the model, instruments, capacities, and lessons learned to all the other livestock farmers' cooperatives and organizations with a combined membership of more than 15,000 small and medium-sized producers. At the regional level, through the Federación Centroamericana del Sector Cárnico Bovino [Central American Beef Federation] (FECESCABO), with which the project will share experience, outcomes, and lessons learned that could be replicated with the 10 national organizations in Central America and Panama under its umbrella that represent livestock producers and beef processing industries. Beef is one of the country's main exports, and the meat industry has been investing in expanding installed capacity, which impacts the business' return and hence its sustainability. To the extent that animal quality improves, prices for them will rise, which is the best incentive for the producer in the future.

C. Project and institutional risks

- 3.4 **Market risk.** There is uncertainty on the part of livestock producers that they will command better prices that will compensate them for their efforts to certify their farms and produce higher-quality meat. **Mitigation:** there will be an awareness campaign among producers and slaughterhouses (the export market) about the importance not only of having a farm with SBPS certification, but also, above all, of meeting quality standards. In view of this uncertainty, during project preparation, the team had talks with meat industry (CANICARNE) representatives, who expressed wholehearted commitment to paying a fair price for quality meat produced to SBPS standards. This commitment was fulfilled in the pilot project to produce calves under the SBPS modality carried out by CONAGAN and CANICARNE as a forerunner to this project, and which did successfully fetch a higher price (see paragraph 5.2). The project would also work with producers to ensure the satisfactory negotiation of contracts between them and the meat industry. The industry is aware that the success of those contracts will determine the project's viability and scalability.
- 3.5 Risk of the model's profitability. Given that this will put to the test a regulation recently put in place by the government, there have not yet been any specific outcomes to objectively demonstrate the profitability of the model. **Mitigation:** The project has been able to integrate industrial processors into the value chain. They have a significant interest in this model being adopted in the country, which will to some degree ensure a better market for the product generated under the operation. At the same time, primary producers are aware that the traditional production model has to change, and the project therefore calls for working with the ones who are willing and offering better conditions for testing and fine-tuning the model. The model may become profitable after the project's execution period depending on the investments that must be made. However, the expectation is that the quality and productivity results achieved in the short term will be quite motivating.
- 3.6 There is also a risk that the producer may not be able to adopt the new technologies due to **lack of access to financing**. **Mitigation:** financial entities

such as Fundación FUNDESER and Financiera FDL will be participating in the project to facilitate lines of credit to producers (see paragraph 2.12).

- 3.7 The diagnostic needs assessment for CONAGAN found a medium administrative-financial management and accounting risk. To mitigate it, a number of measures to ensure good control and management of funds have been included as conditions precedent to the first disbursement: (i) present evidence that the accounting software has been updated for dual currency bookkeeping; and (ii) present an accounting manual containing the general chart of accounts, including the project chart of accounts.

IV. INSTRUMENT AND PROPOSED BUDGET

- 4.1 The project has a total cost of US\$1,648,726. Of that amount, US\$829,062.00 (50%) will be contributed by the MIF as nonreimbursable technical-cooperation funding, and US\$819,664.00 (50%) will be contributed by the counterpart. The instrument to be used is technical cooperation.

Project categories	MIF (US\$)	Counterpart (US\$)	Total (US\$)
Component I: Raising awareness, dissemination, and institutional coordination of the project	69,512.00	10,120.00	79,632.00
Component II: Capacity-building and implementation of the pilot SBPS model	368,960.00	635,806.00	1,004,766.00
Component III: Formalization of SBPS marketing	24,254.00	25,034.00	49,288.00
Project administration	285,336.00	148,704.00	434,040.00
Midterm and final evaluation	30,000.00	-	30,000.00
Baseline and monitoring and evaluation system	16,000.00	-	16,000.00
Ex post reviews and audited financial statements (if required)	30,000.00	-	30,000.00
Contingencies	5,000.00	-	5,000.00
Grand total	829,062.00	819,664.00	1,648,726.00
% Financing	50.29%	49.71%	100%

V. EXECUTING AGENCY AND IMPLEMENTATION STRUCTURE

A. Description of the executing agency

- 5.1 CONAGAN is one of the two largest, most representative associations of livestock producers in the country. It was established as a sectoral federation in 1994 by six national producers' associations.¹⁹ Over the course of 22 years it has spearheaded the execution of various programs and projects cofinanced by international cooperation agencies, such as the United States Agency for International Development, Catholic Relief Services, and others. In the last seven years, it has organized national and regional congresses and has been active and influential in policy dialogue between the livestock sector and the public and private sectors. At present, it is a member of the National Agricultural Production, Consumption, and Trade System and recently chaired FECESCABO. CONAGAN does not take individual members, only national organizations.
- 5.2 The partner organizations that will participate in project execution are: (i) CANICARNE, which represents four of the country's five industrial slaughterhouses, is responsible for 85% of meat exports, and has committed to paying an incentive of 5% to 10% per quality calf or steer produced under the SBPS; (ii) potentially the Tropical Agricultural Research and Training Center (CATIE) or a local university, to provide advising on silvopasture systems; and (iii) IPSA, the government authority in charge of the BTS and SBPS, which will have an important role to play in building technical and veterinary capacities and in coordination in the areas targeted by the project.

B. Implementation structure and mechanism

- 5.3 CONAGAN will establish an execution unit and the necessary structure to implement project activities and effectively and efficiently manage project resources. Operationally, the execution unit will report to the general manager of CONAGAN and comprise: (i) a project coordinator, (ii) an administrative assistant, (iii) an accountant, (iv) 5 veterinarians, and (v) 10 technicians. The project execution unit will be situated in the geographic area covered by the project as well as at CONAGAN facilities. The execution unit will be in charge of the project's overall execution, operational planning and management, resource administration, risk assessment, and progress reporting.
- 5.4 A project advisory board will be established for technical dialogue and strategic coordination, and to report on progress and outcomes. It will comprise the following strategic partners: one representative of each of the following: CONAGAN, CANICARNE, IPSA, the Regional International Organization for Plant Protection and Animal Health, and producers' organizations, as well as one member designated by the IDB/MIF, who will have a voice but not a vote. The project coordinator will also be part of the board and serve as its secretary. The board will be led by CONAGAN, which will convene at least two meetings a year, in July and February. The board may invite leaders or representatives of organizations to satisfy the project's information, coordination, and partnership needs.

¹⁹ National Union of Crop and Livestock Farmers of Nicaragua (UNAG), Nicaraguan Milk Producers Union (UNILECHE), Central American Isthmus Livestock Expo (EXPICA), Nicaraguan Association of Livestock Purebred Breeders (ANCGAP), Dairy Industry Development Fund (FONDILAC), and FAGANIC, a national umbrella group representing departmental livestock producers' associations.

VI. FULFILLMENT OF MILESTONES AND SPECIAL FIDUCIARY ARRANGEMENTS

- 6.1 **Results-based disbursements and fiduciary arrangements.** The executing agency will agree to the standard MIF arrangements concerning results-based disbursements, the procurement policies,²⁰ and financial management,²¹ as specified in Annex V. The Bank will conduct annual ex post reviews and disbursements and an audit of the financial statements at the end of the project, which the Bank will contract directly.

VII. ACCESS TO INFORMATION AND INTELLECTUAL PROPERTY**

- 7.1 **Access to information.** This document is public under the Bank's Access to Information Policy.
- 7.2 **Intellectual property.** All work and outcomes achieved under the project will be the intellectual property of the IDB. The Bank may grant a free, nonexclusive license to the executing agency, including the rights for dissemination, reproduction, and publication of any output in any medium. The dissemination, reproduction, and publication must indicate that the output was financed by the MIF. Any use of the name or logo of the Inter-American Development Bank or the Multilateral Investment Fund by the executing agency for any purpose will require prior written authorization from the Bank.

²⁰ Link to the [Policies for the procurement of works and goods financed by the IDB.](#)

²¹ Link to the [Financial Management Guidelines for IDB-financed Projects.](#)