SOCIAL, ENVIRONMENTAL AND ECONOMIC TRANSFORMATION OF DAIRY FARMING IN COLOMBIA:

Investment opportunities for sustainable development in vulnerable territories.

Investment Forum | Rome, Italy | October 17-20, 2023

Colombia
Section 1: Agricultural Sector Overview

Pillar of the Colombian economy

The agri-food sector contributes 14% of national GDP (Uniandes, 2021)

15% of national employment (DANE, 2022)

Challenges

Territorial disparities: 31% multidimensional poverty in rural areas and 11.5% in urban areas. (DANE, 2022).

All people should have an adequate and healthy diet: 35% moderate/severe food insecurity. (DANE 2023)

Peace: Transforming conflict dynamics and proposing alternatives to illegal economies

Opportunities

Colombia is a food power

Diverse agro-climatic and cultural conditions for producing a wide variety of foods

There are commitments to reduce the sector’s carbon footprint and productive reconversion.

Global demand for more nutrient-rich foods:
fruits, vegetables, meats and dairy products

40 million hectares of agricultural frontier, but only 8 million are cultivated.

There is a potential to structure a significant volume of value-added dairy products.
SECTION 1
Agricultural Sector Overview

SECTION 2
The investment climate

SECTION 3
Colombia, a world agri-food power: The dairy sector

SECTION 4
Investment Note

SUPPORT
A commitment to sustainable dairy production
Section 1.1: Agricultural Sector Overview

Alignment with national priorities to promote the agricultural sector and sustainable development.

National Development Plan
2022 – 2026

Priorities for the Ministry of Agriculture and Rural Development

Incentives for private companies:
Works for Taxes

National Competitiveness and Productivity Policy

Peace Agreement Integral Rural Reform

Rural Policy Review of Colombia
OECD, 2022
A market with **52 million** potential consumers.

**5,800 companies** dedicated to food and agricultural products.

Knowledge of consumption patterns and distribution networks.

5 business centers with more than 1 million inhabitants: Bogota, Medellin, Cali, Barranquilla and Cartagena.

Strategic regional location: Logistics platform with access to the entire continent from the Pacific and the Atlantic.

Expansion of digital transformation and innovation businesses.

**Benefits**

(Procolombia, 2023)

Colombia is LAC’s fourth largest economy.

**Reasons to Invest In Colombia**

**Investment Promotion - Legal Incentives**


Free trade zones: import of inputs under special customs regime (Procolombia, 2023).

Some agricultural services exempted from the sales tax (Ley 2010 de 2019).
Section 2.1: The investment climate

Colombia achieved a high score by combining sound plant health and access to finance rules with effective water management regulations.

**Enabling the Business of Agriculture  Indicators For Colombia**

- Supplying Seed: 59.03
- Registering Fertilizer: 81.55
- Securing Water: 90.00
- Registering Machinery: 95.55
- Sustaining Livestock: 73.73
- Protecting Plan Health: 100.00
- Trading Food: 61.85
- Accessing Finance: 90.00

**Foreign Direct Investment**

In 2022:
- USD$224.579 Million entered LAC
- FDI in LAC increased by 55.2%, reaching its highest value in history

**Investment Grade 2023**

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<th>Perspective</th>
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The financial stress in developed economies has not directly affected the Colombian financial system.

Fuente: Financial stability report, BR, 2023

**Fuente:** Enabling the Business of Agriculture, 2019
The strategy of the Ministry of Agriculture and Rural Development in the dairy industry is aimed at:

- Bringing the dairy production sector to the levels and standards of large producers in the region.
- Generating productive bets that add value and improve the competitiveness of the sector.
- Increasing consumption from 154 to 170 liters per capita.
- Increasing Colombia's net export rate.
- Strengthening the productivity of farming families.

Country commitment: Productive Management of the Dairy Chain

Budget in the Production Management Plan 2043: COP$2.7 billion

Prioritization: Southwest of the country

Section 3: Colombia, a world agri-food power
Section 3.1: The importance of the Dairy Chain in Colombia

Important subsector for the national economy

- 36.7% Livestock GDP
- 700,000 direct Jobs
- 70% of the national agricultural frontier has dairy aptitude (UPRA, 2023)

Colombia is the fourth largest milk producer in Latin America after Brazil, Argentina and Mexico.

Dairy production chain seeks to generate greater productivity and competitiveness

- Produced 7,251 million lt/year in 2022, is competitive in production costs Entre enero y marzo de 2023,
- Between January and March 2023, exports grew 126% year-on-year, with a value of US$8.3 million (Fedegan, 2023).
- In the same period, imports decreased by 7.9% with a value of US$86.4 million (Fedegan, 2023).

Average production of 6.36 l/cow/day (Uruguay 7.95; Argentina 18.6, FAO, 2022).
- Colombian milk is recognized for its quality, with protein and fat levels higher than New Zealand, Germany, Switzerland, Canada and USA (Procolombia, 2023).

Sustainability challenges

1. Intensify dairy production through sustainable production models.
2. Decrease GHG emissions and increase carbon sinks
3. Promote the conservation of ecosystems and encourage sustainable productive landscapes.
Section 4: Investment Note - Potential of prioritized departments

**Characterization of the Dairy Sector in Cauca and Putumayo**

**Livestock farms and productivity**
- 13,867 livestock farms
- 64% Small - 6.3 lt/vaca/dia
- 24% Med-sized - 15 lt/vaca/dia
- 7.7% Large - 18 lt/vaca/dia
- 96,355 cows - 60% are of production age.

**Milk collection and marketing**
- In 2019 the formal collection was 91,785 lt/day.
- In 2023 (June) it was reduced to 25,388 lt/day - (USP-MADR)
- Currently, there is an estimated 90% informal marketing in the area.

**Ecosystems**
- Cattle ranching in areas of environmental and water importance (paramos).
- Deforestation processes, soil degradation, etc.
Objective:
Improving sustainable production in the dairy sector in Cauca

Resilient, sustainable and low-carbon rural development project for the dairy chain in the department of Cauca.

Scope of the Cauca Dairy Network Project

4 Municipalities
Department of Cauca

US$ 1.5M
Appeal by the Embassy of Sweden

400 Beneficiaries

Articulation of key actors in the territory
Implementation of a concerted scalable sustainable production model.
Environmental management with a focus on connectivity
Increased productivity and milk quality
Associative and commercial strengthening
Empowerment of women, youth and indigenous communities

Section 4: Investment Note - Potential of prioritized departments
Promote the social, economic and environmental transformation of dairy farming in Colombia, meeting the strategic development objectives of the dairy chain in targeted territories of the southwestern dairy region of Colombia.

**Objective**

**Scope of the Investment Note HiH**

**Location**

18 municipalities prioritized in the departments of Cauca and Putumayo

Southwestern Dairy Basin

**Resources to manage**

US$34.9M

**Beneficiaries**

8,000
Section 4.2: Livestock reconversion investment

**Value chain**

1. **Primary production**
   - Environmental management
   - Productivity and competitiveness
   - **US$ 10.6 million**
   - Sustainable livestock production systems

2. **Milk collection**
   - Associative collection of small producers
   - **US$ 2.4 million**
   - 20 collection centers
   - 8,000 beneficiaries

3. **Processing and marketing**
   - Dairy processing and development of regional products
   - **US$ 21.9 million**
   - 3 Processing plants

**Total investment: US$ 34.9 Million**
Section 4.2: Investment and expected results

Environmental management Component

Intervention

Expected Results
- 2.2 M tCO2eq captured by 2043 (based on EX-ACT modeling, 2023)
- Reduced production costs in the medium and long term

Management Areas
- Water quality
- Propagation of plant material
- Bioinput production

Investment Items
- 2000 Silvopastoral systems
- Water storage tanks
- Community nurseries

INVESTMENT
US$ 2.7M

IRR
19.5%

NPV
US$ 809,256

B/C
1.3
Section 4.2: Investment and expected results

Productivity and competitiveness Component

Intervention

Expected Results

66% Increase in productivity (lt/cow/day)
GFP for animal production implemented

Management Areas

Genetic improvement
Animal welfare
Food preservation
Good Practices

Investment Items

Best practices infrastructure

INVESTMENT

US$ 7,9M

IRR

29.5%

NPV

US$ 14,015,422

B/C

2.5
### Section 4.2: Investment and expected results

#### 3. Associative collection of small producers Component

**Intervention**

- **Expected Results**: Increase in formal marketing

- **Management Areas**: Strengthening associativity and participation, Milk quality control

- **Investment Items**: 20 collection centers strengthened

**INVESTMENT**

- **US$ 2,4M**
- **IRR**: 21.3%
- **NPV**: US$ 1.047.079
- **B/C**: 1.4
Component
Processing and marketing

Intervention

Expected Results
- Increased household income
- 5 New dairy products developed
- Local and regional market supply

Management Areas
- Dairy product processing infrastructure
- Development of products with regional identity
- Quality management

Investment Items
- 3 new dairy processing plants

INVESTMENT
US$ 21,9M
IRR
28,6%
NPV
US$ 36,690,853
B/C
2,2
Section 4.2: Summary of investments and expected results

1. Environmental management
   - Water quality
   - Propagation of plant material
     - Bioinput production

2. Productivity and competitiveness
   - Genetic improvement
   - Animal welfare
   - Food preservation
   - Good Practices

3. Associative collection of small producers
   - Strengthening associativity and participation
   - Milk quality control

4. Processing and marketing
   - Dairy product processing infrastructure
   - Development of products with regional identity
   - Quality management

Summary

- US$34.9M Total investment
- 28.2% Average IRR
- USD$52.5 M Total NPV
- 2.2 B/C
- 2,000 Direct beneficiaries
- 6,000 Indirect beneficiaries
- 2.2 M tCO2eq captured by 2043
- 47.4% Increase in per capita income