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
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

ENABLING ENVIRONMENT
A commitment to sustainable dairy production
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 1.1: Agricultural Sector Overview

Alignment with national priorities to promote the agricultural sector and sustainable development.
Section 2: The investment climate

Reasons to Invest in Colombia

- **A market with 52 million potential consumers.**
- **5,800 companies dedicated to food and agricultural products.**
- **Knowledge of consumption patterns and distribution networks.**

**Benefits (Procolombia, 2023)**

- **Strategic regional location:** Logistics platform with access to the entire continent from the Pacific and the Atlantic.
- **5 business centers** with more than 1 million inhabitants: Bogota, Medellin, Cali, Barranquilla, and Cartagena.
- Expansion of digital transformation and innovation businesses.

**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.

Colombia

81,53

Argentina 76,00
Brazil 75,25
Mexico 69,46
Chile 66,19

Foreign Direct Investment

In 2022:
USD$224,579 Million entered LAC
FDI in LAC increased by 55.2%, reaching its highest value in history

Brazil 41%
México 17%
Chile 9%
Colombia 8%

Investment Grade 2023

<table>
<thead>
<tr>
<th>Raters</th>
<th>Rating</th>
<th>Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitch Ratings</td>
<td>BB+</td>
<td></td>
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<tr>
<td>S&amp;P Global</td>
<td>BB+</td>
<td>Stable</td>
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<tr>
<td>Moody's</td>
<td>Baa2</td>
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</table>

The financial stress in developed economies has not directly affected the Colombian financial system.

Fuente: Financial stability report, BR, 2023
Section 3: Colombia, a world agri-food power

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 Colombia's net export rate.
- Increasing consumption from 154 to 170 liters per capita.
- 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

**Public-Private Partnerships** to accelerate the industrialization of the dairy sector
The importance of the Dairy Chain in Colombia

Important subsector for the national economy

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

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.

Produced 7,251 million lt/year in 2022, is competitive in production costs 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).

2.3% National GDP - 24.3% Agricultural and livestock GDP
70,000 direct Jobs
70% of the national agricultural frontier has dairy aptitude (UPRA, 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).
CHARACTERIZATION OF THE DAIRY SECTOR IN CAUCA AND PUTUMAYO

Livestock farms and productivity

- 13,867 livestock farms
  - 64% Small - 6.3 lt/vaca/día
  - 24% Med-sized - 15 lt/vaca/día
  - 7.7% Large - 18 lt/vaca/día
  - 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.
SOCIAL, ENVIRONMENTAL AND ECONOMIC TRANSFORMATION OF DAIRY FARMING IN COLOMBIA

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.

Scope of the Investment Note HiH

Location
18 municipalities prioritized in the departments of Cauca and Putumayo
Southwestern Dairy Basin

Goals

Resources to manage
US$34.9M

Beneficiaries
8,000
Livestock reconversion investment program

Value chain

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

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
   - 5 Processing plants

Total investment: US$ 34.9 Million
Section 4: 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: Investment and expected results

### Productivity and competitiveness Component

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Expected Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>72% Increase in productivity (lt/cow/day)</td>
<td>GFP for animal production implemented</td>
</tr>
</tbody>
</table>

**Management Areas**
- Genetic improvement
- Animal welfare
- Food preservation
- Good Practices

**Investment Items**
- Best practices infrastructure

**INVESTMENT**
- **US$ 7,9M** (IRR 29,4%)  
- **US$ 11,740,337** (NPV 2,63)  
- **B/C**
## Section 4: Investment and expected results

### 3. Associative collection of small producers Component

#### Intervention

<table>
<thead>
<tr>
<th>Expected Results</th>
<th>Increase in formal marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Areas</td>
<td>Strengthening associativity and participation Milk quality control</td>
</tr>
<tr>
<td>Investment Items</td>
<td>20 collection centers strengthened</td>
</tr>
</tbody>
</table>

**Investment**
- **US$ 2,4M**
- **IRR 21.89%**
- **NPV US$ 1,112,060**
- **B/C 1.5**
Section 4: Investment and expected results

Component: Processing and marketing

<table>
<thead>
<tr>
<th>Intervention</th>
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<tbody>
<tr>
<td><strong>Expected Results</strong></td>
</tr>
<tr>
<td>› Increased household income</td>
</tr>
<tr>
<td>› 5 New dairy products developed</td>
</tr>
<tr>
<td>› Local and regional market supply</td>
</tr>
<tr>
<td><strong>Management Areas</strong></td>
</tr>
<tr>
<td>› Dairy product processing infrastructure</td>
</tr>
<tr>
<td>› Development of products with regional identity</td>
</tr>
<tr>
<td>› Quality management</td>
</tr>
<tr>
<td><strong>Investment Items</strong></td>
</tr>
<tr>
<td>› 3 new dairy processing plants</td>
</tr>
<tr>
<td>› 2 strengthened production plants</td>
</tr>
</tbody>
</table>

INVESTMENT: US$ 21,9M

IRR: 26.16%

NPV: US$ 49,308,796

B/C: 2.78
Section 3.4: Summary of investments and expected results

01 Agroecosystem management
   - Water quality
   - Propagation of plant material
   - Bioinput production

   Inversión
   US$2,7M

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

   Inversión
   US$7,9M

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

   Inversión
   US$2,4M

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

   Inversión
   US$21,9M

Resumen

US$34.9M
Total investment

24.09%
Average IRR

8,000
Beneficiaries

170%
Increase in per capita income

2.2 M tCO2eq
captured by 2043
Section 4.2. Enabling Environment

**PUBLIC-PRIVATE PARTNERSHIP - INTERNATIONAL COOPERATION**

Ministerio de Agricultura y Desarrollo Rural
Food and Agriculture Organization of the United Nations
Suecia

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

**Goal:**

Improving sustainable production in the dairy sector in Cauca

- 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

**Scope of the Cauca Dairy Network Project**

- 4 Municipalities
- Department of Cauca
- US$ 1.5M
- Appeal by the Embassy of Sweden
- 400 Beneficiaries
Thank you