DEEP DIVE II: ISFL PRIVATE SECTOR THEORY OF CHANGE
THE EXAMPLE OF LIVESTOCK IN COLOMBIA

JEAN-DOMINIQUE BESCOND
Senior Private Sector Specialist
World Bank Group
(Moderator/Presenter)

DIETER FISCHER
Lead for Agribusiness Advisory Services in Latin American and the Caribbean
International Finance Corporation (IFC)

MARIÁNGELA RAMÍREZ DÍAZ
Senior Agriculture Economist
World Bank Group

EIRIVELTHON LIMA
Senior Agriculture Economist
World Bank Group

MARIE PAVIOT
Senior Agriculture Economist
World Bank Group

FERNANDO LEYVA
Component 2 Leader
Biocarbon Project, Ministry of Agriculture and Rural Development, Colombia

FELIX TEILLARD
Agriculture Consultant
World Bank Group

PAULO MOREIRA
Hacienda San Jose
Colombia

MARTHE TOLLENAAR
Impact & ESG &GreenFund / SAIL Ventures

DIETER FISCHER
Lead for Agribusiness Advisory Services in Latin American and the Caribbean
International Finance Corporation (IFC)
Deep Dive II: ISFL
Private Sector Theory of Change – The Example of Livestock in Colombia
BioCarbon Fund - Initiative for Sustainable Forest Landscapes at a glance

- **Mexico**: Durango, Nuevo Leon, Chihuahua, Coahuila
- **Colombia**: Orinoquia Region
- **Ethiopia**: Oromia
- **Zambia**: Eastern Province
- **Indonesia**: Jambi
BioCarbon Fund - Initiative for Sustainable Forest Landscapes at a glance

Operational since 2013

- **$367M** Fund capital
- **$24.7M** In grant disbursements by programs*
- **$98.8M** Leveraged in public and private finance*
- **43** Partnerships and engagements with not-for-profit organizations*

- **91,778** People benefiting from ISFL programs*
- **49,497** Land users trained in agricultural productivity*
- **28,293** People trained in sustainable land-use practices*
- **25** Partnerships and engagements with the private sector*

*Based on FY21 results
Objectives and Approach

Working at scale across multiple land-use sectors in a jurisdiction to improve livelihoods and maximize reductions in GHG emissions.

Incentivizing results through payments for verified emission reductions.

Leveraging partnerships across public and private sectors to increase incentives for climate-smart land use.

Building on experience from the BioCarbon Fund’s previous work, other REDD+ initiatives, and relevant agriculture and forestry programs.

Programs are designed to maximize private sector engagement and financial leverage.

The objective is to “forest-proof” the sourcing of commodities and redirect market forces towards sustainable and equitable land management practices.
Simplified ISFL Private Sector Theory of Change

--- Activities ---

1. **Capacity enhancement**
2. **Policy and regulation changes**
3. **Crowd-in PS investment**
4. **Testing sustainable business models**
5. **Development of a low-carbon industry**
6. **Provide evidence for sustainable value chains**

--- Outputs ---

1. **Improved land use planning**
2. **Effective policy**
3. **Engagement of relevant actors**
4. **Private finance redirected**
5. **Capacity to implement low-carbon practices**

--- Impact ---

**Private sector shifts agricultural and forestry production towards low-carbon practices**
Private Sector Engagement Approach

Provides:

• Proof of concept at pilot level for climate-smart agricultural practices
• Engagement with PS actors at different levels within the jurisdiction
• Assessment of creative and innovative sustainable business models and their viability
• Technical studies for low-carbon and sustainable practices

Supporting:

• Effective Emission Reduction
• Climate finance
• Sustainable land-use
• Gender & Social inclusion
• Improved livelihoods
From Theory to Action: ISFL Private Sector Engagement Strategies – Ethiopia & Colombia
Ethiopia Private Sector Strategy

Value chains

Two selected value chains to catalyze Private Sector Engagement activities in the Oromia region:

Coffee and Dairy

Entry points

Private sector engagement is being developed through two main entry points:

Smallholders & Cooperatives Participation; and Private Sector Co-investments & linkages to market

Engagement at different levels

• **Producer level:** Training and participation on innovative sustainable business models with communities & associations

• **Supply chain level:** Selecting firms in coffee and dairy supply chains willing to invest and co-finance proof of concepts of sustainable business models with linkages to smallholder producers.

• **National/Jurisdictional level:** Improve the enabling environment, provide technical assistance and capacity building
Colombia Private Sector Strategy

Main Modalities

Private Sector engagement is made through three different modalities:

Industry commitments
Cooperative engagements
Private Sector Agreements

Engagement at different levels

• **Firm - Working with IFC**: Prove a better and more sustainable business model to then be scaled up

• **Sectoral - ISFL PS Engagement**: Select value chain entry points such as cocoa, coffee, livestock, palm, etc. Facilitate operational change and scale up innovative pilots to leverage PS finance

• **National/Jurisdictional - ISFL ER Programs**: Tackle policy and regulatory issues such as land tenure, credit, market access. Improve the enabling environment, provide technical assistance and capacity building
Colombia Private Sector Strategy

Working in more than 5 targeted value chains

Being Cocoa and Livestock transversal ones where ISFL funding seeks to leverage its efforts at the 3 distinct levels
Next speakers

Dieter Fischer
Lead for Agribusiness Advisory Services in Latin American and the Caribbean, IFC

Mariángela Ramírez Díaz,
Senior Agriculture Economist, WBG

Eirivelthon Lima
Senior Agriculture Economist, WBG

Marie Caroline Paviot
Senior Agriculture Economist, WBG

Fernando Leyva
Component 2 Leader, Biocarbon Project, Ministry of Agriculture and Rural Development, Colombia
THE COLOMBIA CASE: FROM THEORY TO IMPLEMENTATION
**The largest global development institution focused exclusively on the private sector in developing countries**

As of June 2021, IFC’s committed portfolio stands at US$ 64.1bn…

... of which US$ 23.3 bn was committed in FY 2021

<table>
<thead>
<tr>
<th>Industry</th>
<th>US$bn</th>
</tr>
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<tbody>
<tr>
<td>Financial Markets</td>
<td>12.5bn</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>10.8bn</td>
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<tr>
<td>Agribusiness &amp; Forestry</td>
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<tr>
<td>Funds</td>
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<td>Health and Education</td>
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<td>Manufacturing</td>
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<tr>
<td>Tourism, Retail and Property</td>
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<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

**Committed portfolio by industry**

- Financial Markets: 12.5bn
- Infrastructure: 10.8bn
- Agribusiness & Forestry: US$ 117.4bn
- Funds: US$ 9.6bn
- Health and Education: US$ 7.1bn
- Manufacturing: US$ 5.9bn
- Tourism, Retail and Property: US$ 5.9bn
- Others: US$ 5.9bn

**Mobilizing the Private Sector and Creating Markets**

- Engage in **difficult environments** and mobilize private finance enabling a **development impact** beyond its direct resources.
- **Sustainability**: IFC is an investor focused on development impact and climate change. Promoter of environmental, social, and corporate governance standards.
- **Create, deepen, and expand markets** where they are weak or do not currently exist.
- **Maximize the financing** available in areas with the most needs.

More than $321 billion invested since our founding in 1956

Leveraging the full range of World Bank Group capabilities

AAA credit rating; owned by 185 countries

Provides investment, advice, resource mobilization

Present in nearly 100 countries

IFC completed 313 new projects in 2021 in more than 70 countries
IFC offers a wide range of integrated products and services to its clients.

**Upstream/IFC 3.0**
IFC is committing time and resources to create, and implement investment projects through, deepen, and expand markets and imagine, design:
- **Global-Delivery Platforms**, including design and development of scalable products and/or solutions applicable to multiple projects in a sector
- **Sector-Wide Initiatives** such as country-specific interventions to unlock markets in a sector
- **Early-Stage Project Development**, covering project-specific engagements with potential sponsors and co-investors

**Investment**
- **Loans**
  - Project and corporate financing
  - On-lending through intermediary institutions
- **Equity**
  - Direct equity investments
  - Private equity funds
- **Trade and Commodity Finance**
  - Guarantee of trade-related payment obligations of approved financial institutions
- **Derivative and Structured Finance**
  - Derivative products to hedge interest rate, currency, or commodity-price exposures of IFC clients
- **Blended Finance**
  - Using donor funds to crowd in private financing

**Advisory**
Innovative solutions combining IFC’s expertise and tools to:
- Strengthen clients’ performance and impact
- Reduce operational risks
- Enhance sustainability and competitiveness
- Improve environmental, social, and corporate governance standards
- **$274.4 million program in FY20**

**Mobilization**
- **Syndications**
  - Capital mobilization to serve developmental needs
  - Over 80 co-financiers: banks, funds, DFIs
- **Equity mobilization**

**250 people employed globally in Upstream**

**$23.3 billion committed in FY20**

**$64.1 billion committed portfolio**
IFC’s Agribusiness Strategy

IFC’s vision is to promote sustainable, inclusive and efficient food systems through the private sector via investments, advisory services and partnerships to create development impact

To achieve this goals, IFC focuses on supporting the following 3 pillars:

- **ENHANCE FOOD SECURITY**
  - Increase food supply, especially from most efficient, competitive regions
  - Increase value addition and product diversification in supply chains
  - Improve efficiency/ lower cost of food distribution/ logistics
  - Lower cost of food to consumers through efficient use of technology/innovation
  - Promote access to safe, affordable, nutritious food

- **ENHANCE INCLUSIVE GROWTH AND SHARED PROSPERITY**
  - Enhance linkages of smallholder farmers and SMEs to agricultural value chains
  - Build capacity of local producers
  - Facilitate access to finance and risk mitigation mechanism to smallholder farmers
  - Gender smart approaches throughout value chain
  - Support product availability to Base of Pyramid

- **MAKE SUSTAINABILITY A BUSINESS DRIVER**
  - Improve Environmental & Social practices
  - Promote climate smart agriculture
  - Improve food safety
  - Promote global standards
  - Increase resource efficiency, including water
  - Improve resilience of agriculture systems
  - Community engagement and investment as a business tool
IFC’s agribusiness activity falls under 4 broad sectors: (i) Primary Production and Commodity Processing; (ii) Sustainable Protein; (iii) Forest and Wood Products, and (iv) Packaged Food & Beverages.

FY21 Committed Portfolio by Subsector

- **Primary Production & Commodity Processing**: 36%
- **Animal Protein**: 19%
- **Forest & Wood Products**: 16%
- **Packaged Food & Beverages**: 29%

Globally diversified portfolio with investments across the developing world.
IFC has 66 investments in livestock totaling ~$1 billion

IFC's clients benefit from access to global expertise, technical assistance and IFC's network of clients
**IFC’s Sustainable Protein Advisory Services**

*IFC's Sustainable Protein Advisory Services department provides technical assistance to livestock companies in IFC’s portfolio and pipeline*

Advisory Services:

- Improving operational efficiency and profitability while at the same time implementing best practice in animal welfare, animal health and biosecurity.
- Providing technical support to ensure clients meet or exceed national best practice in nutrition formulation, veterinary management, husbandry practices, and animal health and welfare practices.
- Benchmarking client greenhouse gas emissions and supporting the development and implementation of a decarbonization strategy.
- Supporting client procurement and strengthening outgrower supply chains, including through climate-smart agriculture and gender-smart approaches.
COLOMBIAN BEEF SECTOR

- Herd of 23 million cattle, oriented towards the domestic market. 13th largest herd, but the 19th largest exporter

- Extensive, low input pasture systems for beef and dairy

- In many areas, lower weight gain (0.2 kg/day), compared to other pasture-based systems that can exceed gains of 1 kg/day

- Low efficiency and limited potential to reach high value export markets, mainly due to informality of the local market and limited certified process in the industry.

- High emission intensity (300 kgs CO2 equivalent per kg protein) versus potential export competitors such as Uruguay (250 kgs CO2 equivalent
IFC’S BEEF SECTOR PROGRAM IN COLOMBIA

Develop climate-smart beef production in Colombia that reduces GHG emission intensity and develops the supply of deforestation-free beef from Latin America.

**Hacienda San Jose**
Primary production

Support to develop a traceable and environmentally sustainable beef supply chain at scale, including landscape analysis of carbon generated by the cattle and sequesters by soil.

**Grupo Bios**
Supporting integrated intensification approach (Cattle/Crop integration)

Support to develop sustainable and traceable domestic sources for animal feed (maize and soy). Pilot maize/soy rotation systems utilizing regenerative agricultural principles.

**Compañía Internacional de Alimentos Agropecuarios (CIALTA)**
Industry level

Support to improve production efficiency of cattle suppliers and improving the internal process, by incorporating climate smart practices and developing direct to consumer sales model.
ASIST-CHACO: AUTOMATED SUSTAINABLE INVESTMENT TOOL FOR THE PARAGUAYAN CHACO

An initiative to protect biodiversity and promote sustainable beef production in the Chaco region of Paraguay through development of a GIS dashboard with over 500 layers of biodiversity and land use data. Through a multi-stakeholder process, this dashboard is designed as a decision-making toolkit for investments in the vast Chaco region.
DEVELOPING CLIMATE SMART AGRICULTURE SUPPLY CHAINS

INTRODUCTION TO THE ISFL ASA WORK

MAY 2022

THE WORLD BANK
This Advisory Services and Analytics (ASA) activity is working to achieve a low carbon future by pursuing three main objectives:

1. **Knowledge**
   - Generate, validate and disseminate knowledge around climate-smart agriculture practices and technologies

2. **Capacity**
   - Develop local capacity for development of climate-smart agriculture

3. **Dialogue**
   - Facilitate dialogue among key sector stakeholders

**Vision:**
Increase climate mitigation, climate adaptation and productivity in agriculture value chains

We aim to achieve the ASA vision by promoting:
Our work through 2025, focuses on four agriculture value chains in the Orinoquía region of Colombia.

Geographical focus: Orinoquía region.

Value chains:
- Cattle
- Cocoa
- Oil Palm
- Non-timber Forest Products

Focus of today’s presentation:

Timeline:
- 2021
- 2025
The cattle workstream comprises 4 value-chain analyses and 3 transversal studies that will validate information required for the scalability of sustainable production approaches.

1. Testing the impact of technical assistance on uptake of climate-smart approaches for cattle production

2. Testing the impact of climate-smart cattle ranching on productivity and environmental variables

3. Assessing the economic value that stems from climate-smart approaches (for producers and off-takers)

4. Assessing the benefits of introducing an MRV system for private companies in cattle value chains

Transversal studies

- Water resource management
- Digital technology solutions
- Spatial analysis to assess expansion opportunities
Knowledge generated by the ASA work will inform the design of policies and programs to promote the adoption of sustainable cattle ranching practices at scale

- **Empirical evidence**
- **Case studies**
- **Business cases**
- **Compendiums of knowledge**
- **Technical capacities**

- **Inform policy dialogue** (e.g. contribute to DPFs\(^1\) on policy measures to mitigate CC\(^2\))
- **Support/inform investment decisions**
- **Strengthen stakeholder partnerships**
- **Explore lending opportunities in climate/smart agriculture**

**Impact**

- ★ Increased and accountable carbon sequestration
- ★ Resilient agriculture systems
- ★ Improved use of land
- ★ Efficient use of natural resources
- ★ Improved agriculture business case

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1) Development policy financing, 2) Climate Change
Create an enabling environment for sustainable and low-carbon landscape planning and management

**Geographical focus:**
Orinoquia region

**3 main objectives**

- Integrated land-use planning and improved governance for deforestation control
- Sustainable land-use management in agricultural value-chains: livestock, palm oil, cocoa, cashew, commercial plantation
- Defining Emission Reduction program; Capacity for monitoring, reporting, accounting, and verification of AFOLU emissions and removals.

**Timeline**
2018 - 2023

**Budget**
20M$
Create an enabling environment for sustainable and low-carbon landscape planning and management

**Impacts**

- Public sector policy alignment and investment around production and conservation objectives in the region
- Capacity to implement an Emission Reduction program to 2030 and beyond
- Mainstreaming sustainable practices and investments amongst stakeholders

Support farmers and agribusinesses in Colombia’s Orinoquia region sustainably manage their land, increase agricultural production while reducing their GHG emissions
Cómo promover el escalamien
do de agroecosistemas
ganaderos bajos en
carbono en la Orinoquía?
22% del hato nacional (+6,6M cabezas)

Cultura ganadera

Complejidad socioecosistémica requiere de una aproximación subregional

Brechas técnico productivas y logísticas significativas

Frágil abundancia de recursos agua y suelo

Emisiones de GEI: la ganadería es buena parte del problema y de la solución
PORTAFOLIO DE INICIATIVAS EN EJECUCIÓN

Prácticas, tecnologías y enfoques bajos en carbono y resilientes

Agroecosistemas ganaderos: validación de la escalabilidad de sistemas de producción promisorios

- Fincas Participantes (500)
- Fincas Demostrativas (25)
- Fortalecimiento de capacidades (1500 personas impactadas)

Plan de Extensión

Fortalecimiento de capacidades

- Sistema Nacional de Innovación Agropecuaria SNIA (Ley 1876 de 2017)
- Mesas departamentales de ganadería sostenible
PORTAFOLIO DE INICIATIVAS EN EJECUCIÓN

Encadenamientos productivos bajos en carbono

- Planes de Reconversión UPRA/MADR.

Implementación de la oferta institucional:

- Minambiente MADS (acuerdos cero deforestación, PSA & negocios verdes);

- Minagricultura MADR (portafolio FINAGRO, trazabilidad, alianzas productivas, compras públicas).
Next speakers

Felix Teillard
Livestock and Climate Change Specialist
World Bank Group

Paulo Moreira
Hacienda San Jose Colombia

Marthe Tollenaar
ESG Director, SAIL Ventures
From the Colombia case to the Global value chains

Opportunities for accessing climate finance for the livestock sector

FCPF/BioCF Global Private Sector Workshop - May 12th, 2022

Contributors to HSJ ‘blueprint’
WB ‘readiness’ team: Tobias Baedeker, Pierre Gerber, Lee Cando, Jeanne Massé, Félix Jeillard
CIAT: Jacobo Arango, Mike Bastidas, Cimiro Costa Jr., Ricardo González, Alejandra Marin, Natalia Matiz, Alejandro Ruden, Daniel Villegas
IFC: Dieter Fischer, Guillermo Terol
HSJ: Paulo Moreira, Juan Pablo Albornoz
WB Colombia ASA: Mariangela Ramirez, Michael Morris
The livestock sector is part of the climate change problem but also of the solution.

Obstacles include:
- Lack of awareness
- Perception of high risk and low profitability
- Lack of data and MRV systems
- ...
Livestock readiness to access climate finance project

(FCPF Private Sector Window funding)

To increase the readiness of public and private entities within the animal protein sector to access climate finance

Conceptual MRV framework for livestock intensification

Blueprint 1: credit line with climate conditions (Kenya dairy sector)

Blueprint 2: value chain finance in the Colombian beef sector (HSJ)

Community of practice

Concept paper
• **Hacienda San Jose** (HSJ) provided a good case to address the readiness of the Latin American beef sector to access climate finance, due to the importance of Colombia as a beef producer and the unique model implemented by HSJ

• Hacienda San Jose aims to transform Orinoquía beef sector with model cow-calf farm, provision of high-quality breeds and a model for transformation of the entire chain. The model introduces **2 mitigation pathways:**
  - Higher efficiency and productivity – reduced emission intensity
  - Rangeland restoration and pasture improvement: from 1 head/17ha to 1 head/1ha – SOC sequestration

• **Collaborative effort** between IFC, HSJ, CIAT and the World Bank

• Focus and **added value** from the World Bank ‘readiness’ team: consolidate the MRV system, establish the emission profile, define the low carbon path (at farm and value chain scales)
The case of HSJ – main findings

Overall carbon footprint

Net removals drivers

1. **High soil carbon sequestration potential** from pasture improvement
   - Natural savannahs had a baseline stock of more than 200 t C/ha, a value 40% higher than IPCC defaults for the corresponding region/pedo-climatic type
   - The observed carbon accumulation was 13.6 t C/ha after 6.5 years, an amount of accumulation to be expected after 20 years according to IPCC default values

2. **Productivity** and specificity of Nelore breed leading to emission intensity 21% lower than average farms in the region, and intake 3-12% lower than IPCC values
Lessons learnt: from HSJ to global opportunities

- **Hacienda San Jose is unique, or is it?**
  - Achieving net removals will not be possible for most livestock production systems, and uncertainties remain about long-term dynamics
  - Achieving productivity gains and emission intensity reductions can be rewarded if accurate/transparent methodologies are in place
  - An emission intensity-based accounting for livestock emission reductions is possible under certain conditions in the ISFL methodological requirements

ISFL-Orinoquia case study: where the livestock sector is growing, absolute ER accounting doesn’t incentivize low-emission transition and can jeopardize results at landscape scale
Lessons learnt: from HSJ to global opportunities

• **MRV is expensive... but costs can be diluted**
  • Accurate and transparent methodologies are essential to access climate finance and reward good practices
  • In the case of HSJ, the main MRV features (and costs!) were related to the model/framework development and to soil sampling
  • The model (LCA) can be replicated and expanded to cover the whole supply chain
  • Soil carbon sequestration presents a compelling story. Soil sampling is essential for accurate results – but there is a high entry cost/sample size and it can be combined with modeling when upscaling
  • Very preliminary calculations show MRV costs of 0.8-1.1 USD/t CO2-eq. for HSJ only, but only 0.04-0.08 USD/t CO2-eq. if the MRV system is extended to 100 ‘satellite farms’

• **Upscaling raises new challenges and opportunities**
  • New instruments are becoming available for AFOLU, such as ERPA
  • Large scale ERs offer the opportunity to be aligned with national reporting systems and climate commitments
  • Awareness raising and technical assistance to financial (and national) institutions is still needed
CLIMATE FINANCE & GREEN'S LIVESTOCK STRATEGY

INVESTING IN INCLUSIVE AGRICULTURE, PROTECTING FORESTS
01 **&GREEN STRATEGY**

**&GREEN HAS A SPECIFIC COUNTRY-LEVEL INVESTMENT STRATEGY**

01 We identify the main drivers of deforestation at country level.

02 We assess those sectors that are associated with a high risk of deforestation.

03 We look for opportunities to transition these sectors to being fully sustainable and deforestation-free.
&GREEN INVESTS IN INDUSTRY INFLUENCERS WHO ARE ABLE TO LEAD THE TRANSITION TO SUSTAINABLE, DEFORESTATION-FREE AGRICULTURAL COMMODITY PRODUCTION.

<table>
<thead>
<tr>
<th>Borrowers</th>
<th>Growers, Refiners/Processors, Traders, Financial Institutions</th>
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<tbody>
<tr>
<td>Type</td>
<td>Long term patient loans (5 - 10 years)</td>
</tr>
<tr>
<td>Amount</td>
<td>Ticket sizes of USD 10 - 50 million</td>
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<tr>
<td>Interest rate</td>
<td>Market-based, risk-adjusted returns</td>
</tr>
</tbody>
</table>
| Environmental & social covenants | IFC Performance Standards  
                                | Environmental and Social Action Plan  
                                | Landscape Protection Plan  
                                | NDPE  
                                | Certification  
                                | Forest & Biodiversity Framework  
                                | Gender Framework |
> USD 100 M COMMITTED ACROSS 5 INVESTMENTS IN 3 JURISDICTIONS CURRENTLY. TWO NEW INVESTMENTS WILL BE ADDED LATER THIS MONTH (> USD 140M AUM), ONE IN BRAZIL, ONE IN INDONESIA.

<table>
<thead>
<tr>
<th>Country</th>
<th>Supply chain</th>
<th>Loan size</th>
<th>Emissions benefits (tco2e per year)</th>
<th># People with increased resilience</th>
<th># Ha ecosystems with increased resilience</th>
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<tbody>
<tr>
<td>RLU</td>
<td>RONCADOR</td>
<td>MARFRIG</td>
<td>DSNG</td>
<td>HSJ</td>
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<td>Brazil</td>
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<tr>
<td>Colombia</td>
<td>Cattle</td>
<td>USD 7.5m</td>
<td>&gt;500,000</td>
<td>&gt;1,400</td>
<td>&gt;205,000</td>
</tr>
</tbody>
</table>
HSJ
- **Blueprint:** High-quality, high-yield, sustainable cattle production modules.
- **Scale:** Expand into large-scale, vertically integrated supply chain.

Marfrig
- **Blueprint:** Traceability and NDPE compliance of direct and indirect suppliers pushed from meatpacker to producer.
- **Scale:** 2nd largest meatpacker globally, copied by peers.

Roncador
- **Blueprint:** Large-scale sustainable beef production with Integrated Crop-Livestock model.
- **Scale:** One of the largest cattle farms in Brazil (150,000ha). Replication promoted through education and partnerships.
PLEASE CONTACT US FOR MORE INFORMATION
www.andgreen.fund

SAIL VENTURES
www.sailventures.com
info@sailventures.com

THANK YOU