

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



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*Agriculture Consultant*  
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**PAULO MOREIRA**

**Hacienda San Jose  
Colombia**



**MARTHE TOLLENAAR**

*Impact & ESG*  
**&GreenFund / SAIL  
Ventures**

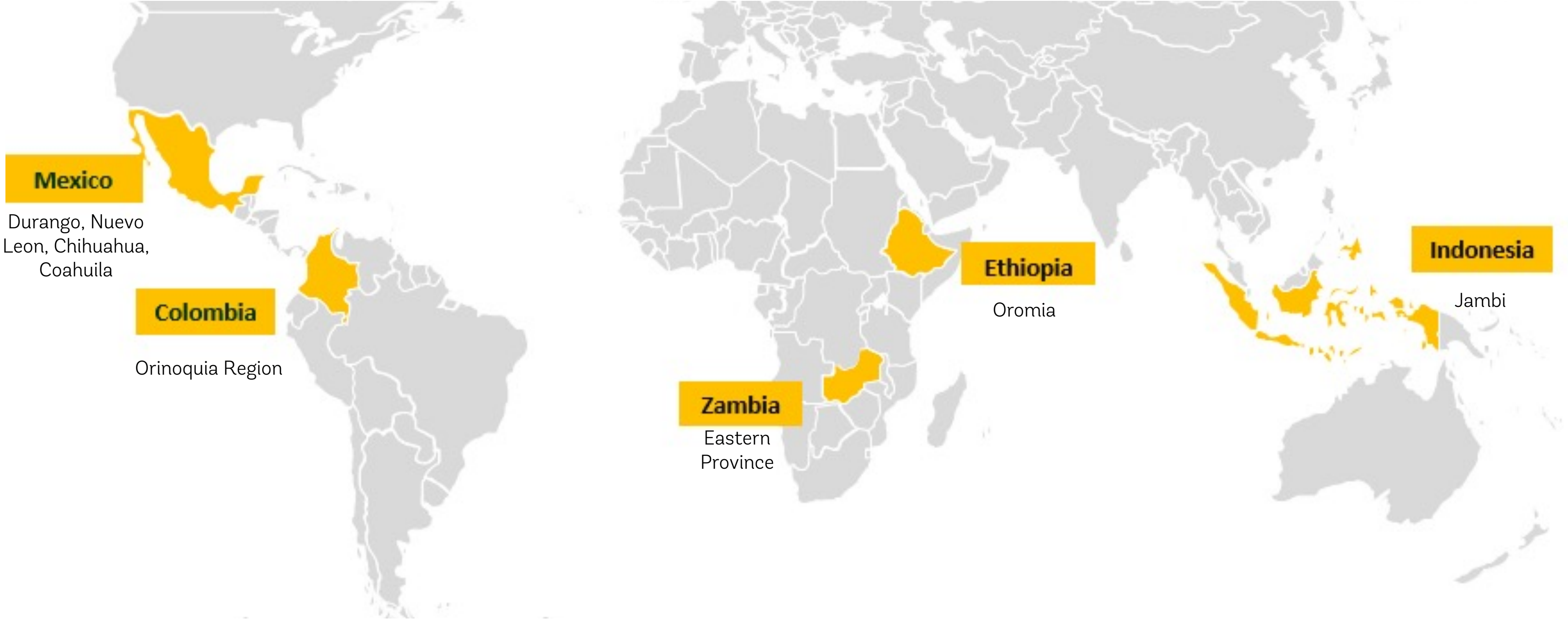


# Deep Dive II: ISFL Private Sector Theory of Change – The Example of Livestock in Colombia



**BioCarbon Fund**  
Initiative for Sustainable Forest Landscapes

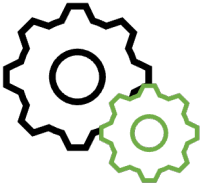
# BioCarbon Fund - Initiative for Sustainable Forest Landscapes at a glance





# 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\*



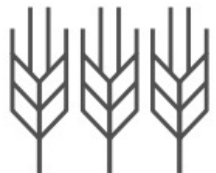
**91,778**

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.

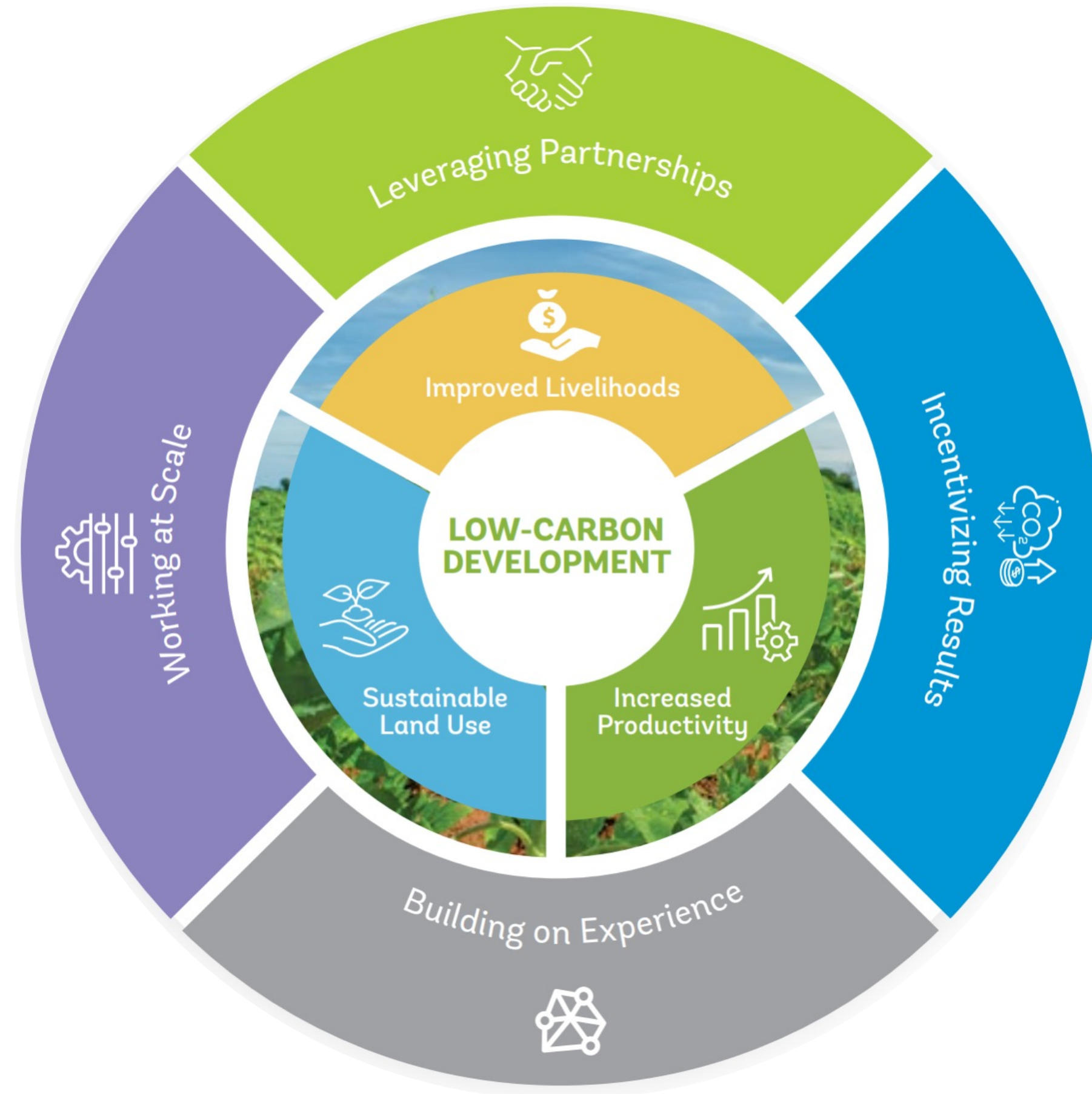
**Incentivizing results** through payments for verified emission reductions.

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

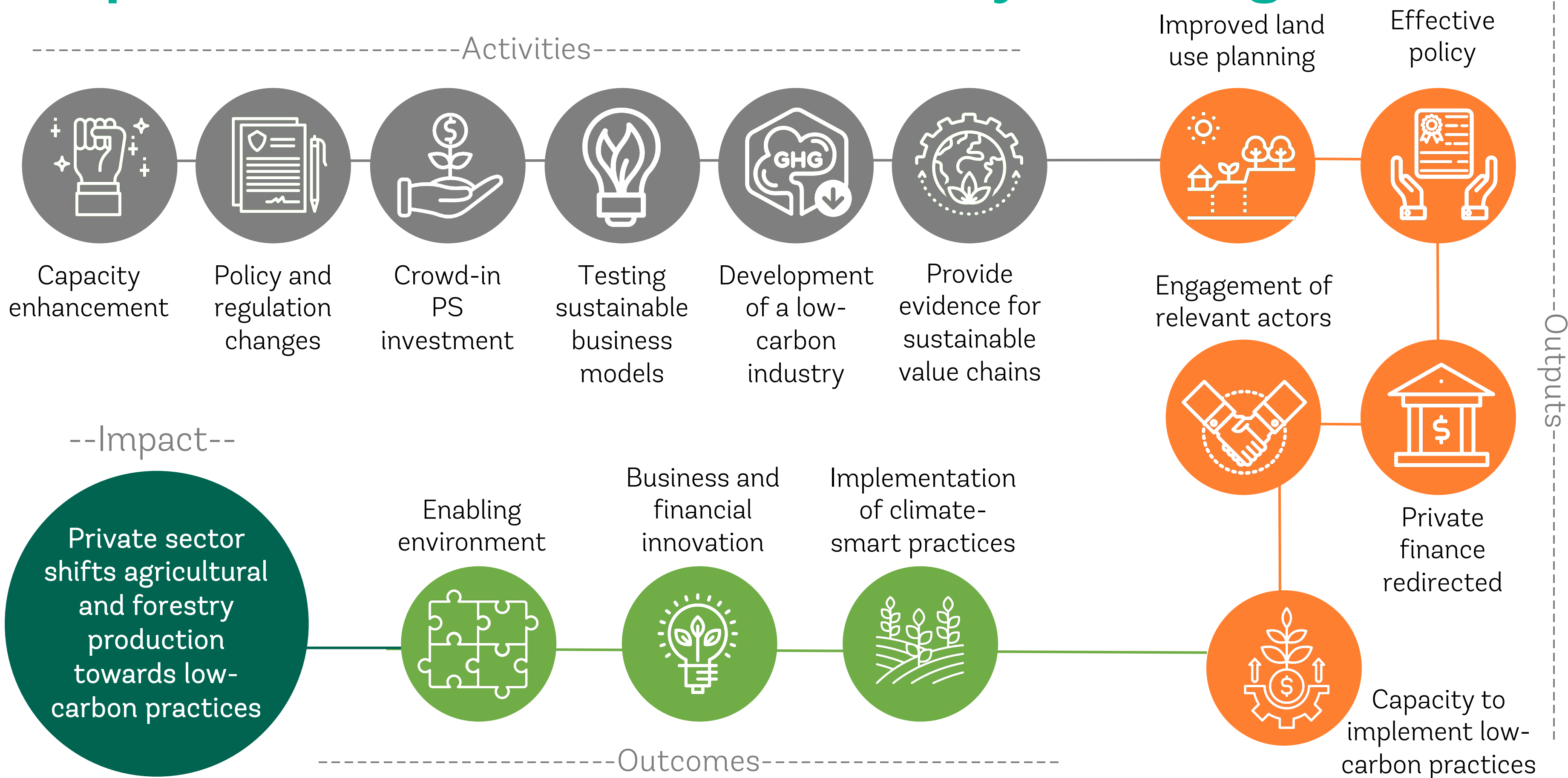
**Building on experience** from the BioCarbon Fund's previous work, other REDD+ initiatives, and relevant agriculture and forestry programs.

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

The objective is to “forest-proof” the sourcing of commodities and redirect market



# Simplified ISFL Private Sector Theory of Change





# 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



**BioCarbon Fund**  
Initiative for Sustainable Forest Landscapes



# 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



# 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



*Creating Markets, Creating Opportunities*

# IFC IS THE PRIVATE SECTOR ARM OF THE WORLD BANK GROUP: INVESTING IN EMERGING MARKETS SINCE 1956

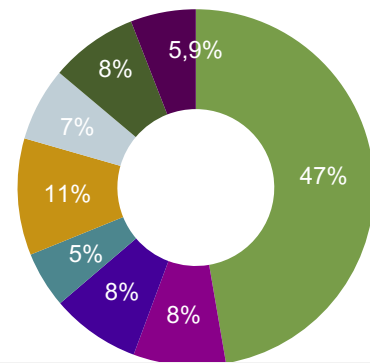
*The largest global development institution focused exclusively on the private sector in developing countries*

As of June 2021, IFC's committed portfolio stands at US\$ 64.1bn...

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

Committed portfolio by industry\*

US\$bn  
64.1



- Financial Markets
- Infrastructure
- Agribusiness & Forestry
- Funds
- Health and Education
- Manufacturing
- Tourism, Retail and Property
- Others



Own account



Mobilization

## 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'S PRODUCTS AND SERVICES

*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

- **250 people employed globally in Upstream**

## 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

- **\$23.3 billion committed in FY20**
- **\$64.1 billion committed portfolio**

## 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

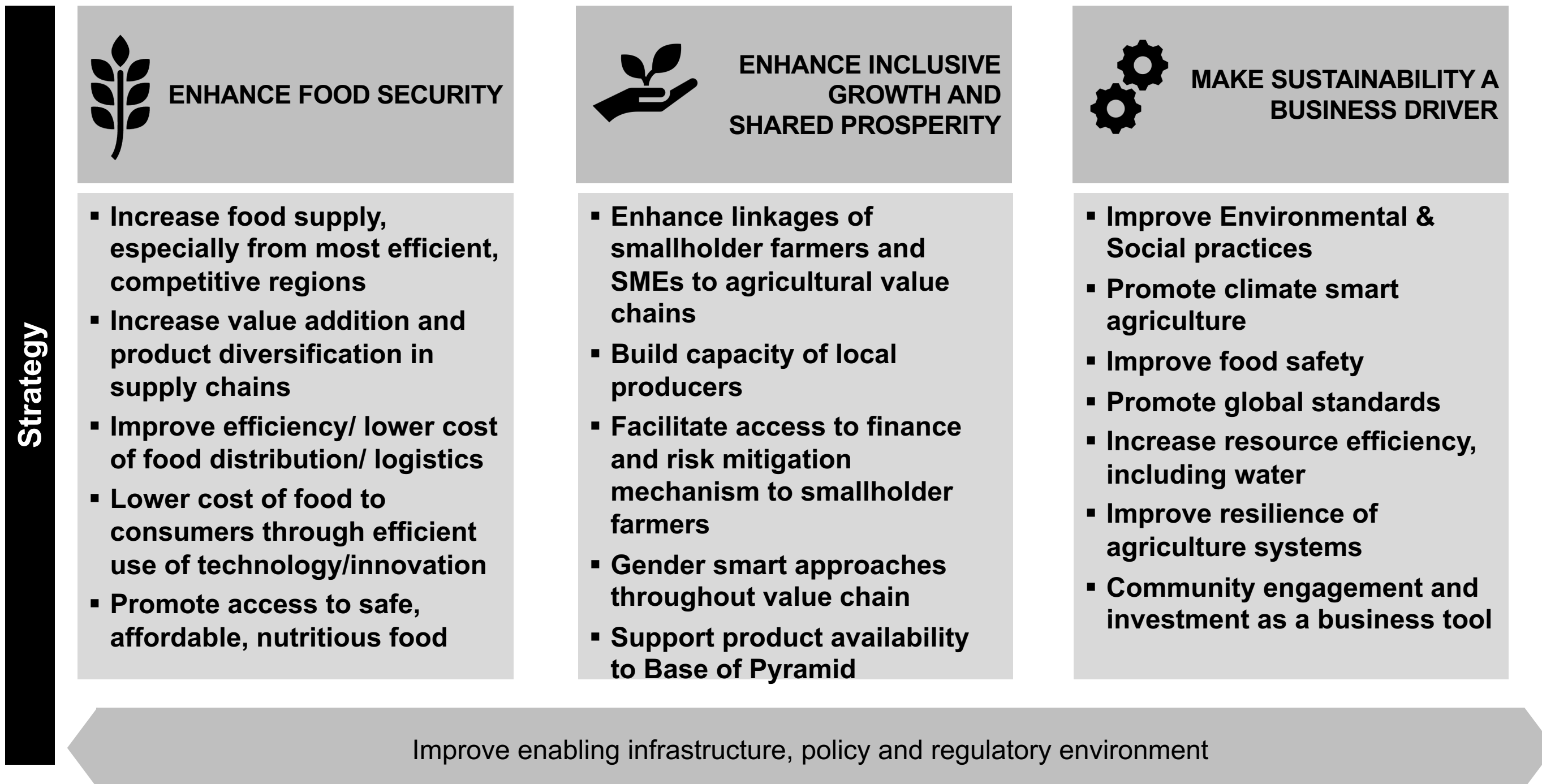
- Capital mobilization to serve developmental needs
- Over 80 co-financiers: banks, funds, DFIs

### Equity mobilization

# 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:

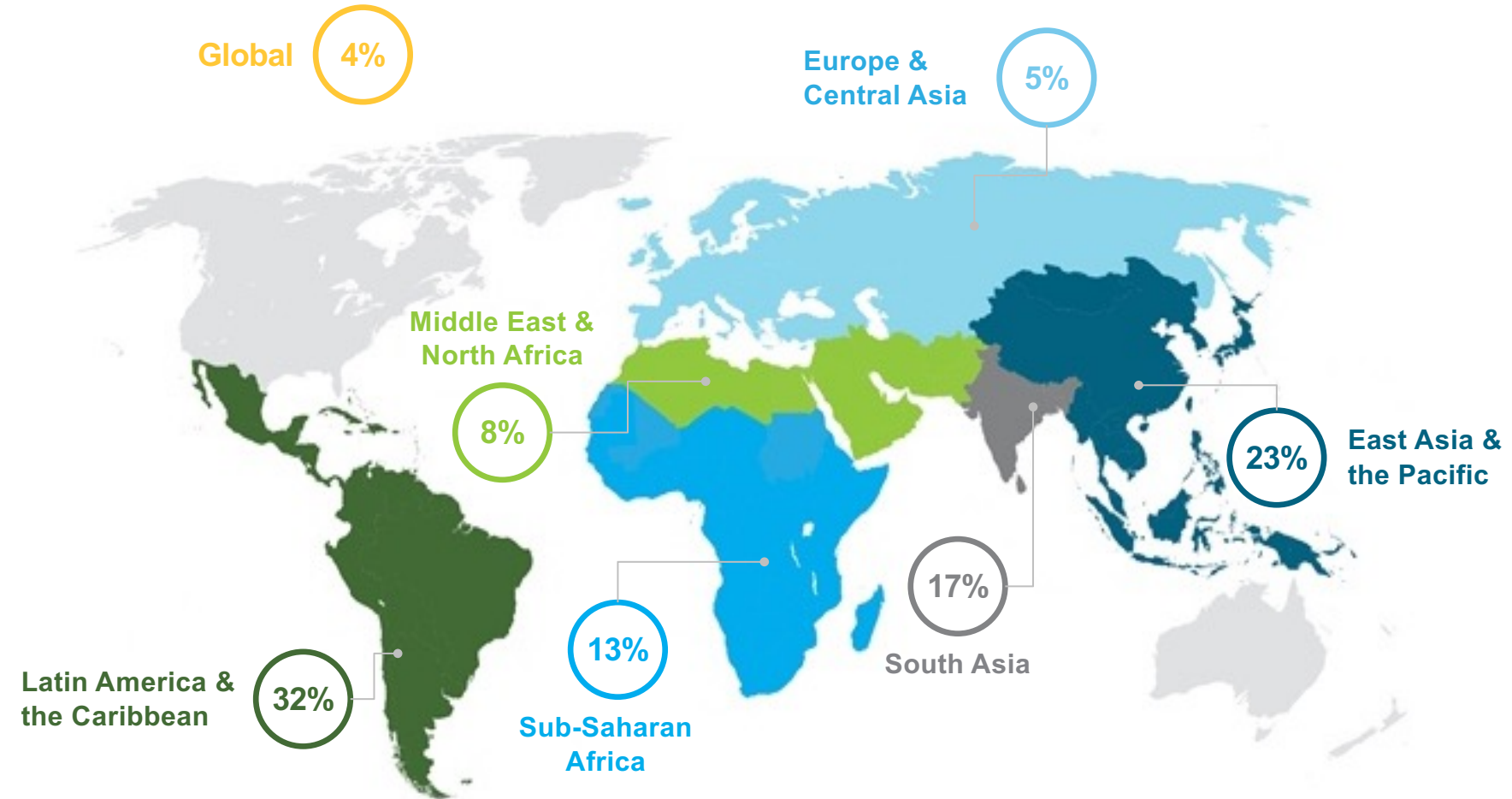
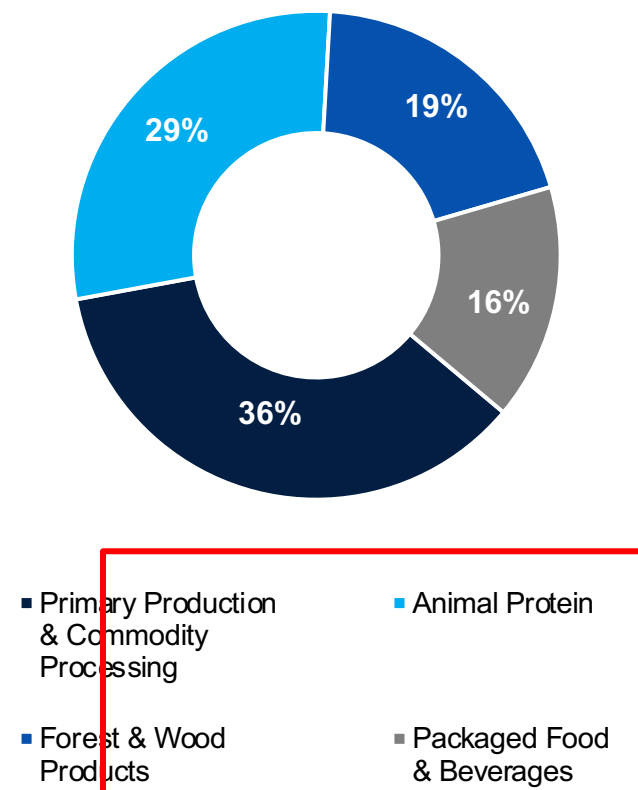




# A GLOBAL TRACK RECORD IN AGRIBUSINESS: \$4.2BN INVESTMENT PORTFOLIO FY21

*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*

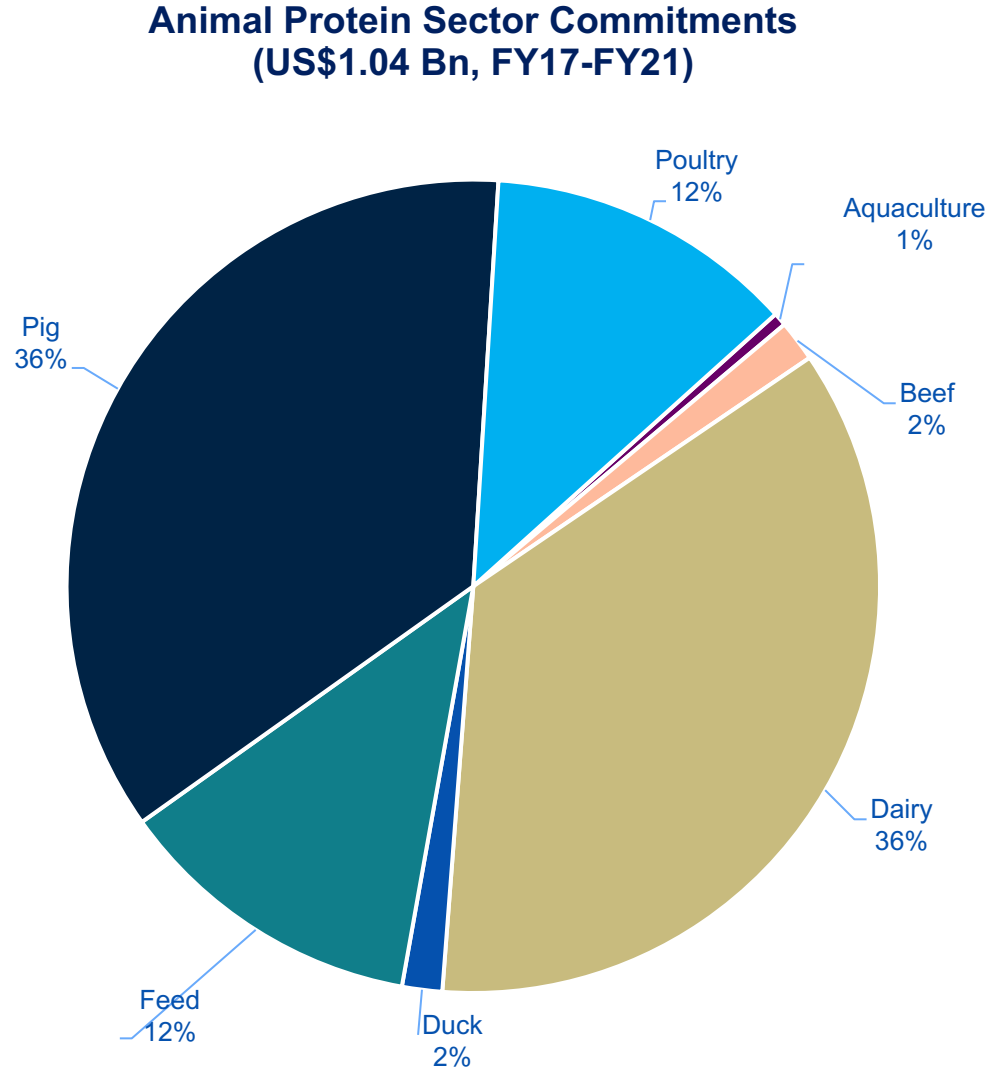
FY21 Committed Portfolio by Subsector



Globally diversified portfolio with investments across the developing world

# GLOBAL EXPERTISE: SUSTAINABLE PROTEIN SAMPLE OF CLIENTS

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. 13<sup>th</sup> largest herd, but the 19<sup>th</sup> 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 CO<sub>2</sub> equivalent per kg protein) versus potential export competitors such as Uruguay (250 kgs CO<sub>2</sub> 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

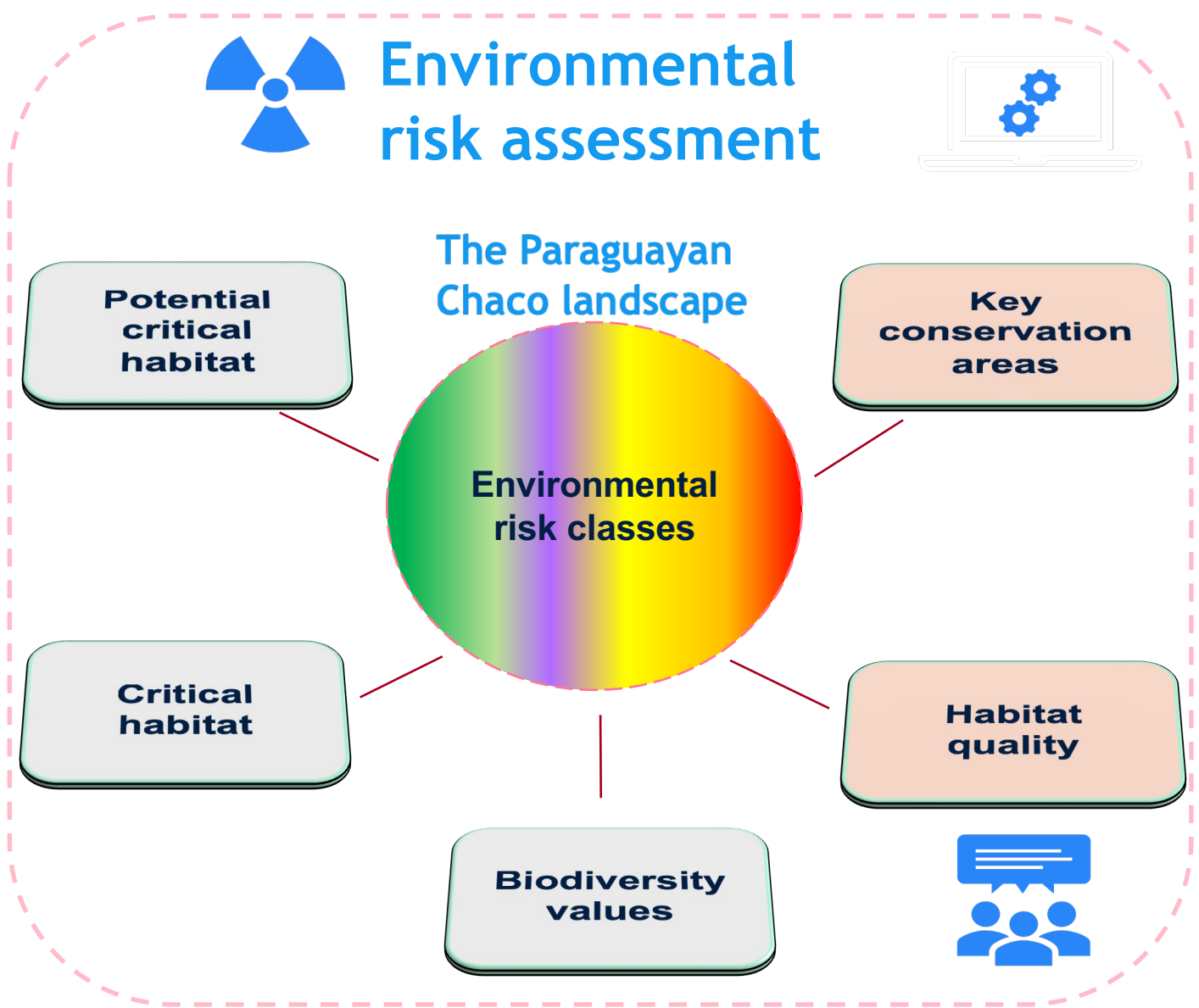
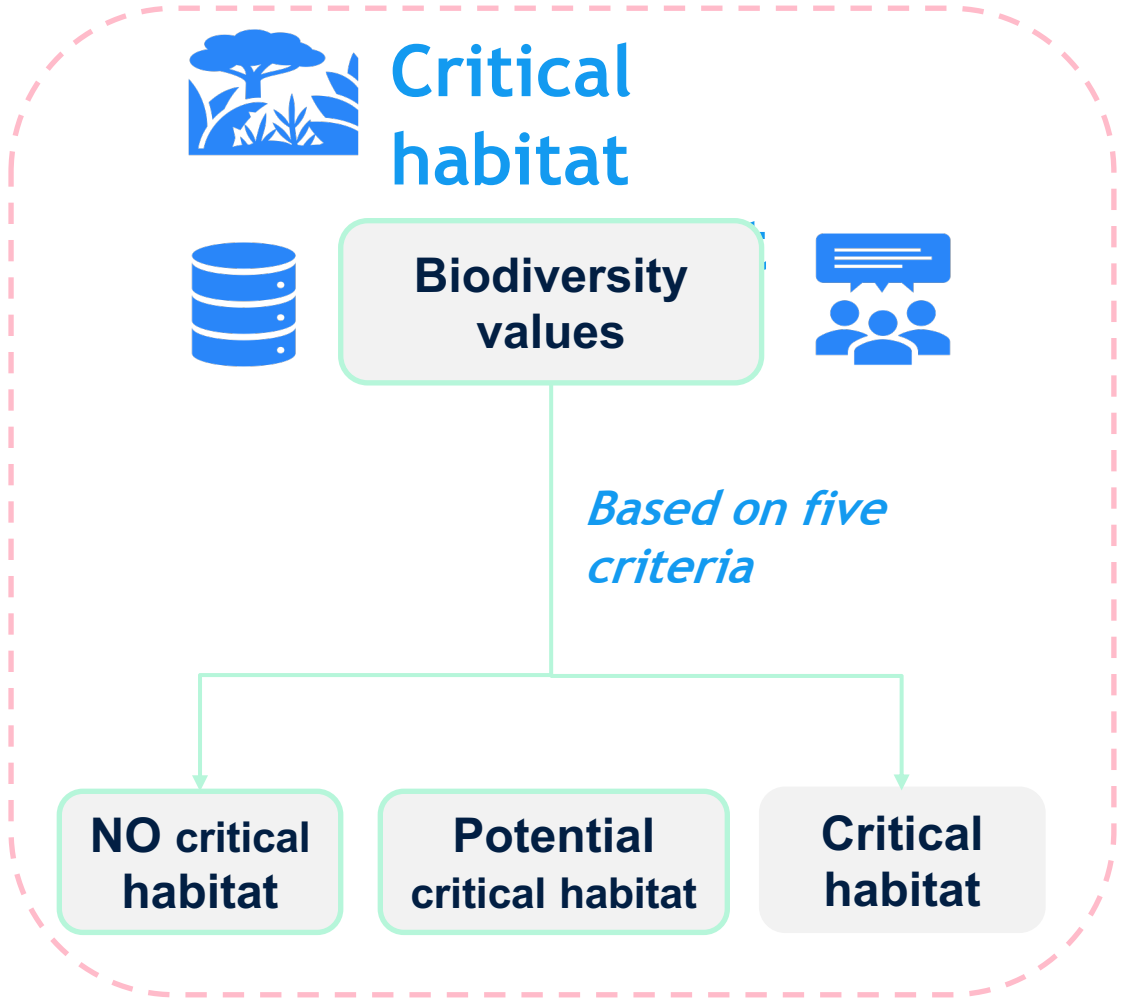


## **Compañía Internacional de Alimentos Agropecuarios (CIALTA)** **Industry level**

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**

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

## Vision:

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

We aim to achieve the ASA vision by promoting:

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

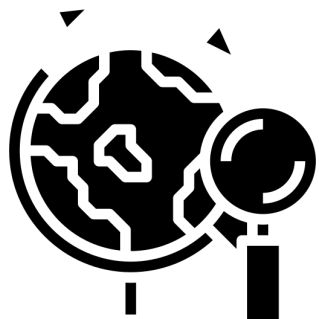
3

 Dialogue

Facilitate dialogue among key sector stakeholders



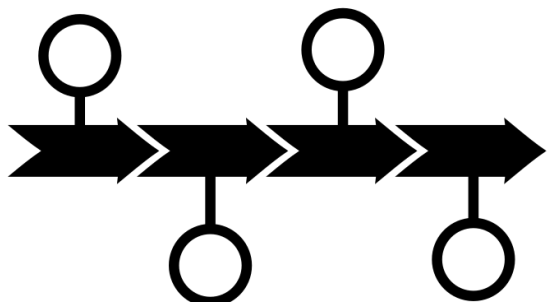
# Our work through 2025, focuses on four agriculture value chains in the Orinoquía region of Colombia



Geographical focus



Value chains



Timeline



*Focus of today's presentation*

**Cattle**



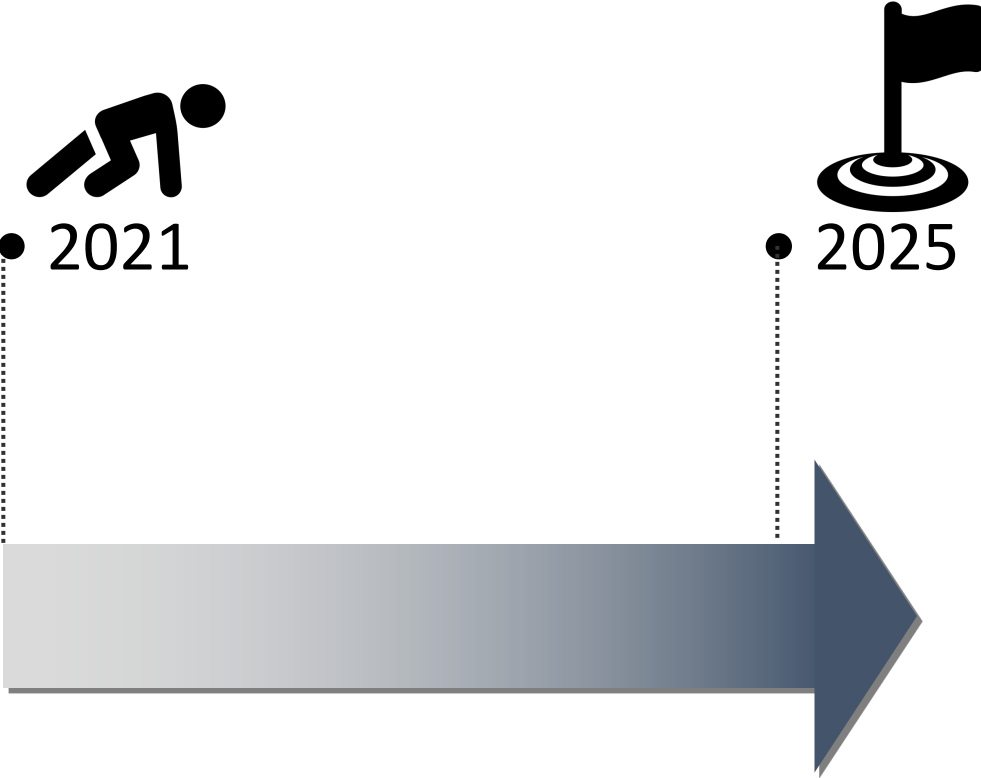
Cocoa



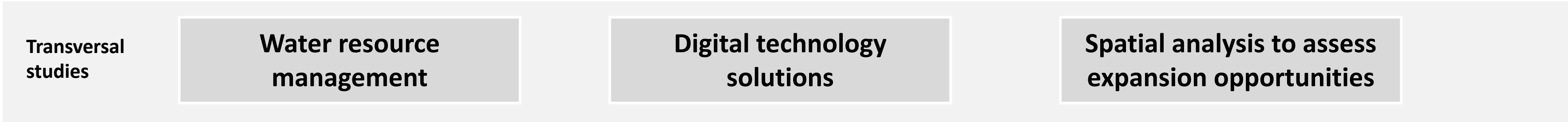
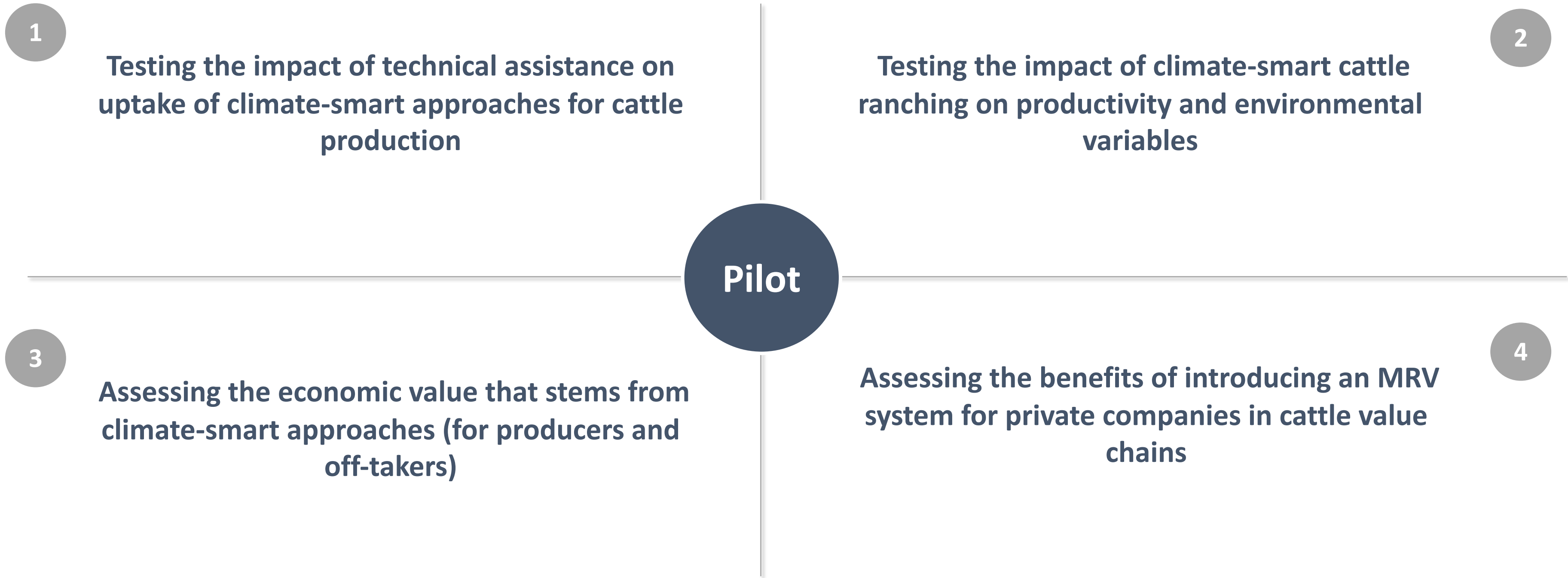
Oil Palm



Non-timber  
Forest  
Products

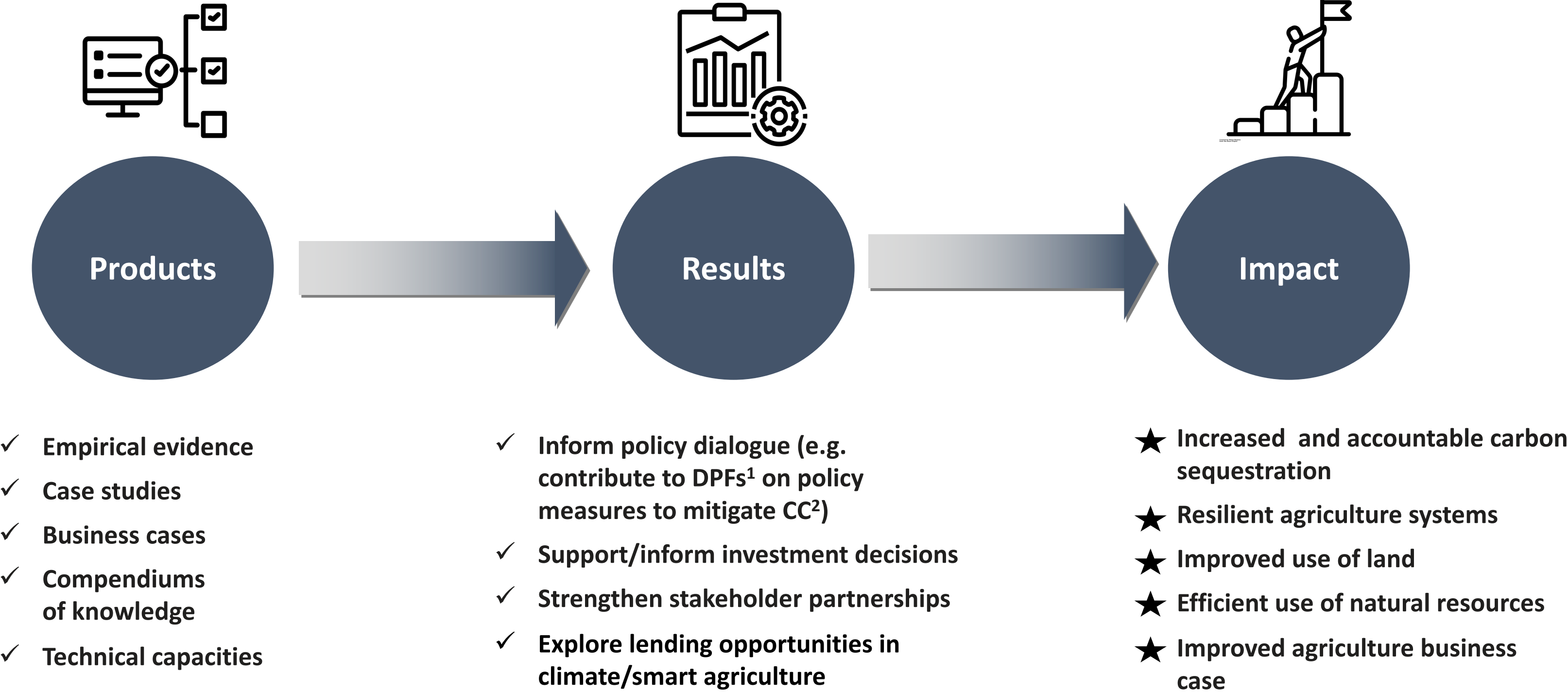


# The cattle workstream comprises 4 value-chain analyses and 3 transversal studies that will validate information required for the scalability of sustainable production approaches





# 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



1) Development policy financing, 2) Climate Change

# The ASA team



**Michael  
Morris**



**Viviana  
Perego**



**Fatima  
Cardoso**



**Eirivelthon  
Lima**



**Lucía  
Amiri-Talesh**



**Marcela  
Portocarrero**



**Leah  
Germer**



**Diana  
Díaz**



**Mariángela  
Ramírez**





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# Orinoquia Sustainable Integrated Landscape Program

ISFL BioCarbono Project

May 2022

# 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





El futuro  
es de todos

Gobierno  
de Colombia

# Biocarbono Orinoquia

Cómo promover el  
escalamiento de  
agroecosistemas  
ganaderos bajos en  
carbono en la Orinoquia?



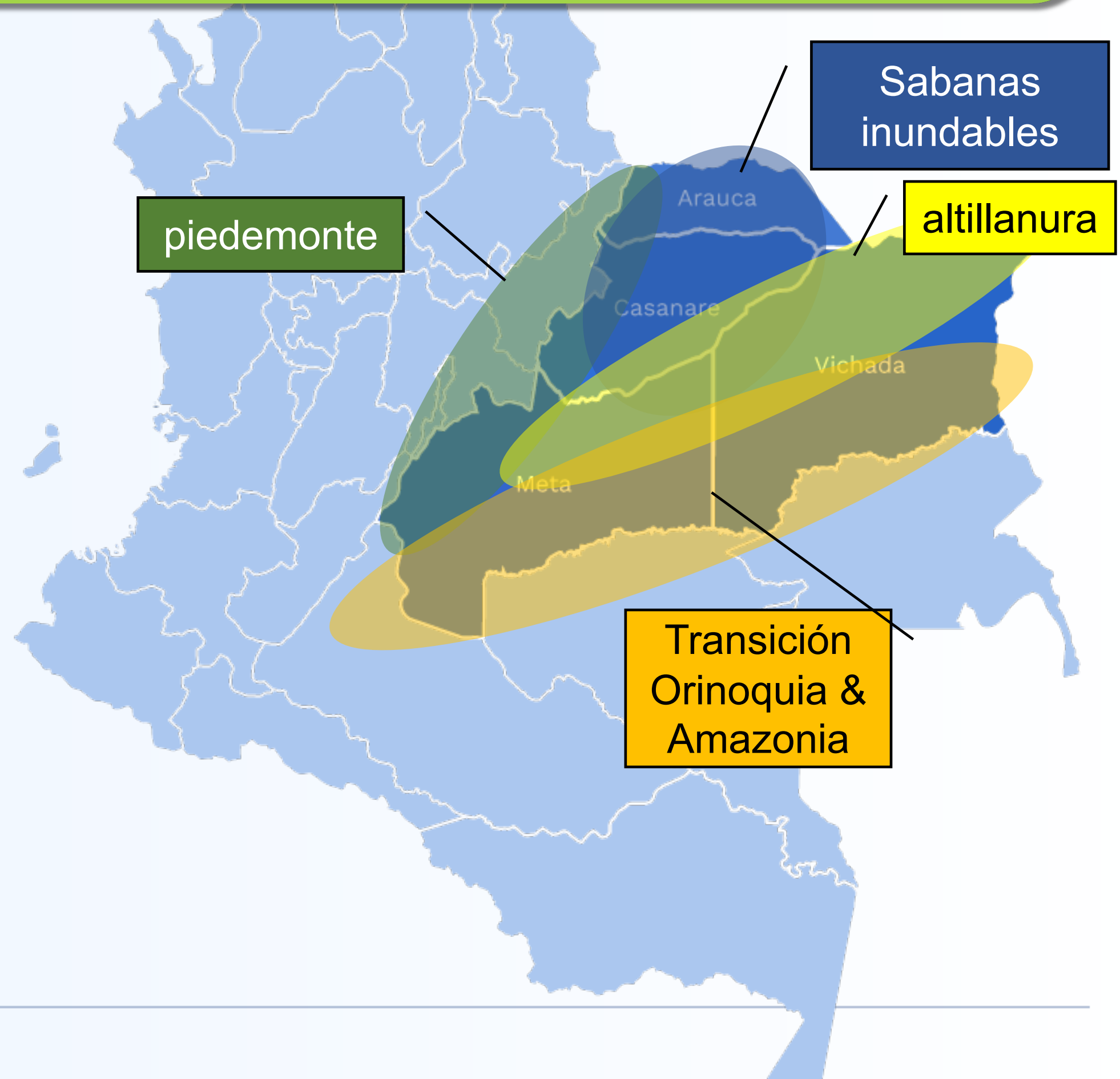
GRUPO BANCO MUNDIAL

**Biocarbono**  
**Orinoquia**

Países sostenibles bajos en carbono

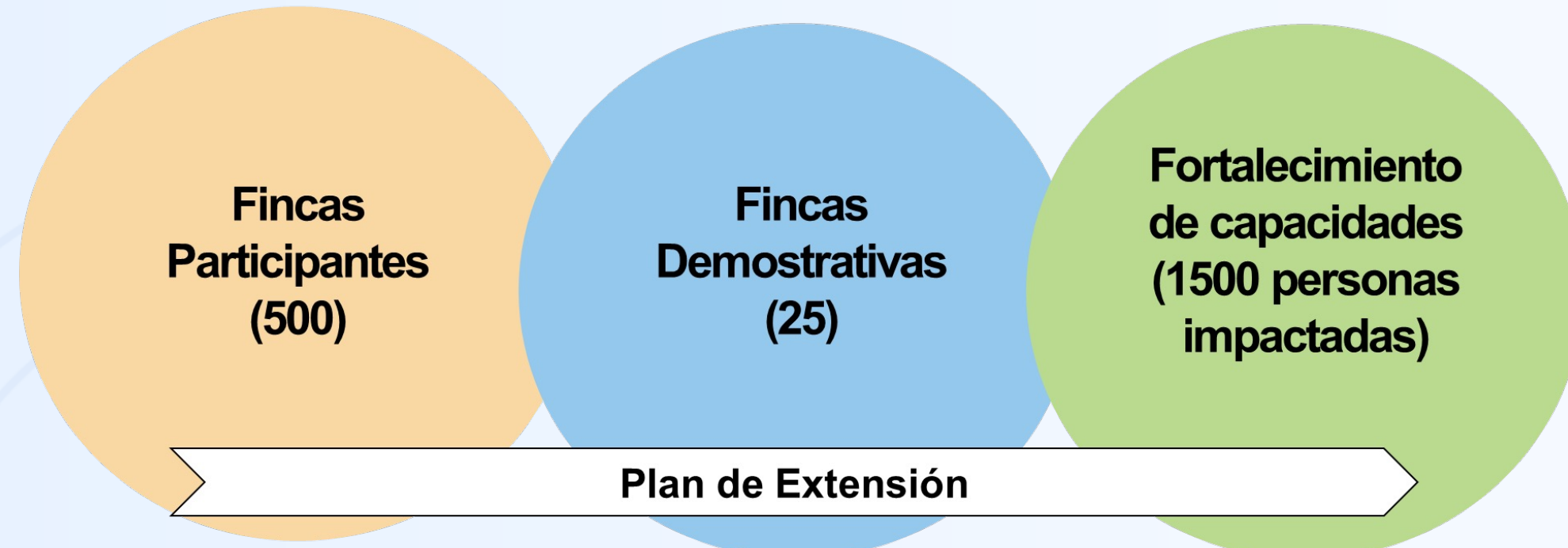


- **22% del hato nacional (+6,6M cabezas)**
- **Cultura ganadera**
- **Complejidad socioecosistémica requiere de una aproximación subregional**
- **Brechas técnico productivas y logísticas significativas**
- **Frágil abundancia de recursos agua y suelo**
- **Emisiones de GEI: la ganadería es buena parte del problema y de la solución**





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



## Fortalecimiento de capacidades

- Sistema Nacional de Innovación Agropecuaria SNIA (Ley 1876 de 2017)
- Mesas departamentales de ganadería sostenible





- **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 Teillard

CIAT: Jacobo Arango, Mike Bastidas, Ciriaco Costa Jr., Ricardo González, Alejandra Marin, Natalia Matiz, Alejandro Ruden, Daniel Villegas

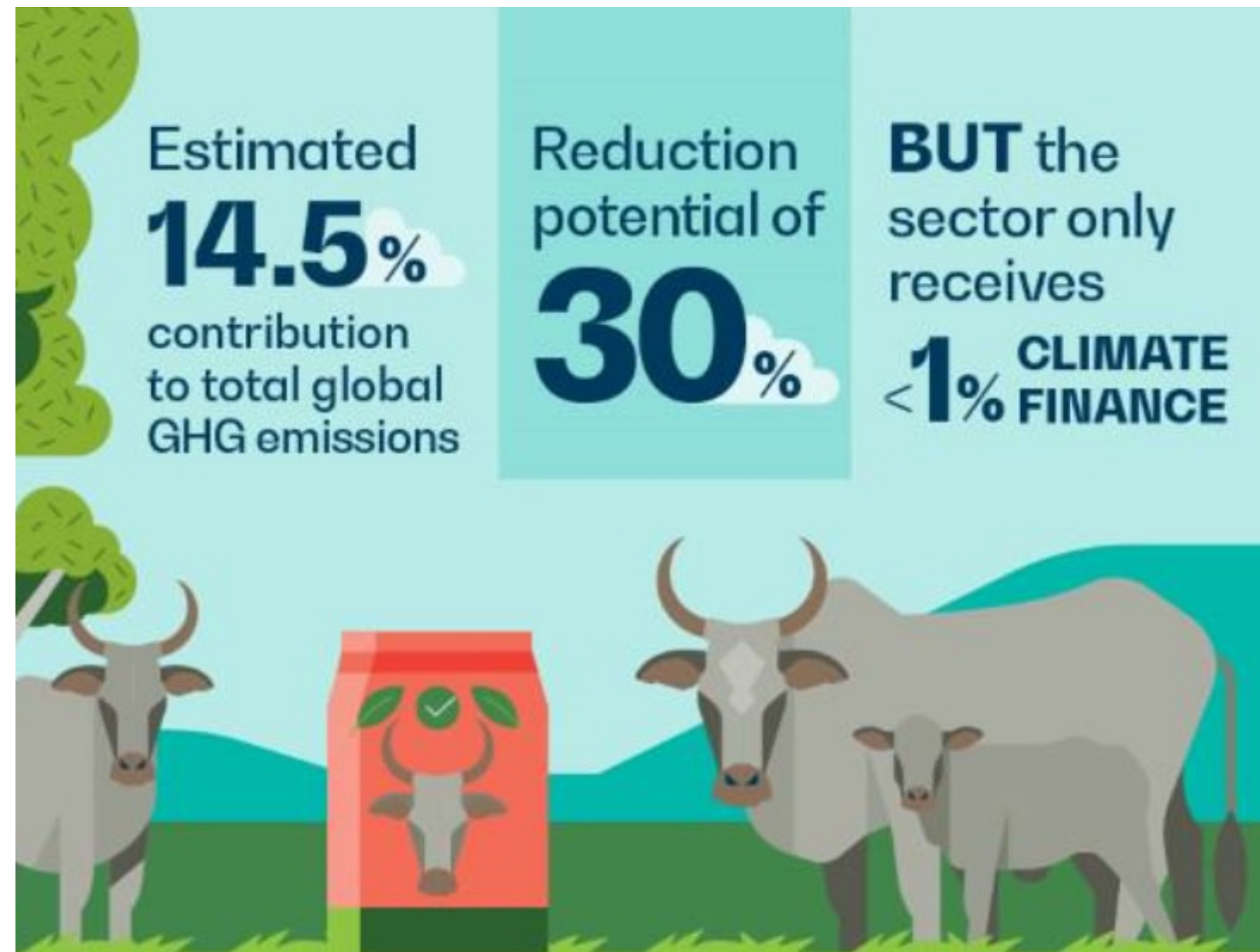
IFC: Dieter Fischer, Guillermo Terol

HSJ: Paulo Moreira, Juan Pablo Albornoz

WB Colombia ASA: Mariangela Ramirez, Michael Morris



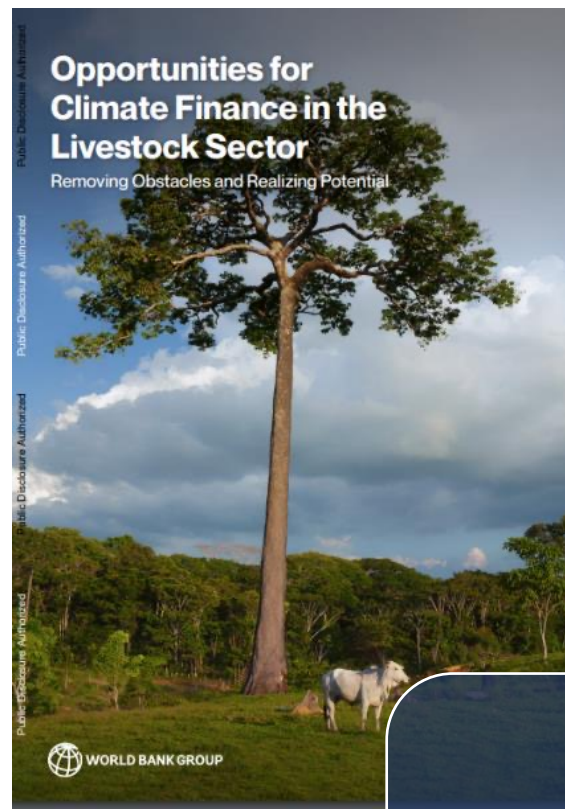
# The livestock sector is part of the climate change problem but also of the solution



## Obstacles include

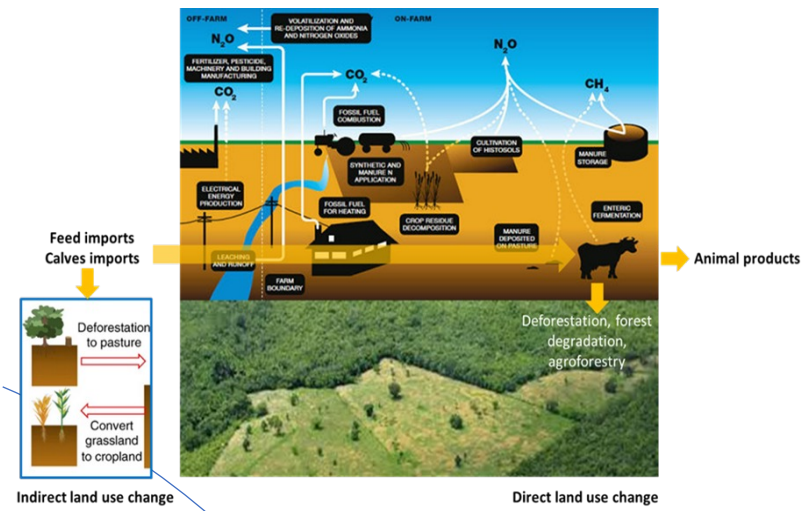
- Lack of awareness
- Perception of high risk and low profitability
- Lack of data and MRV systems
- ...

Livestock readiness to access climate finance project (FCPF Private Sector Window funding)



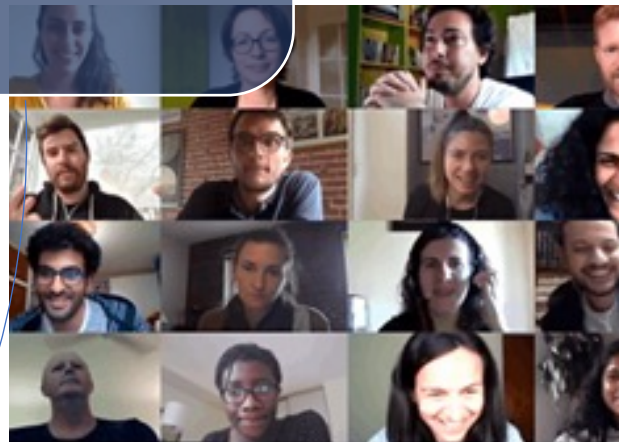
Concept paper

Conceptual MRV framework for livestock intensification



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

Community of practice



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



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





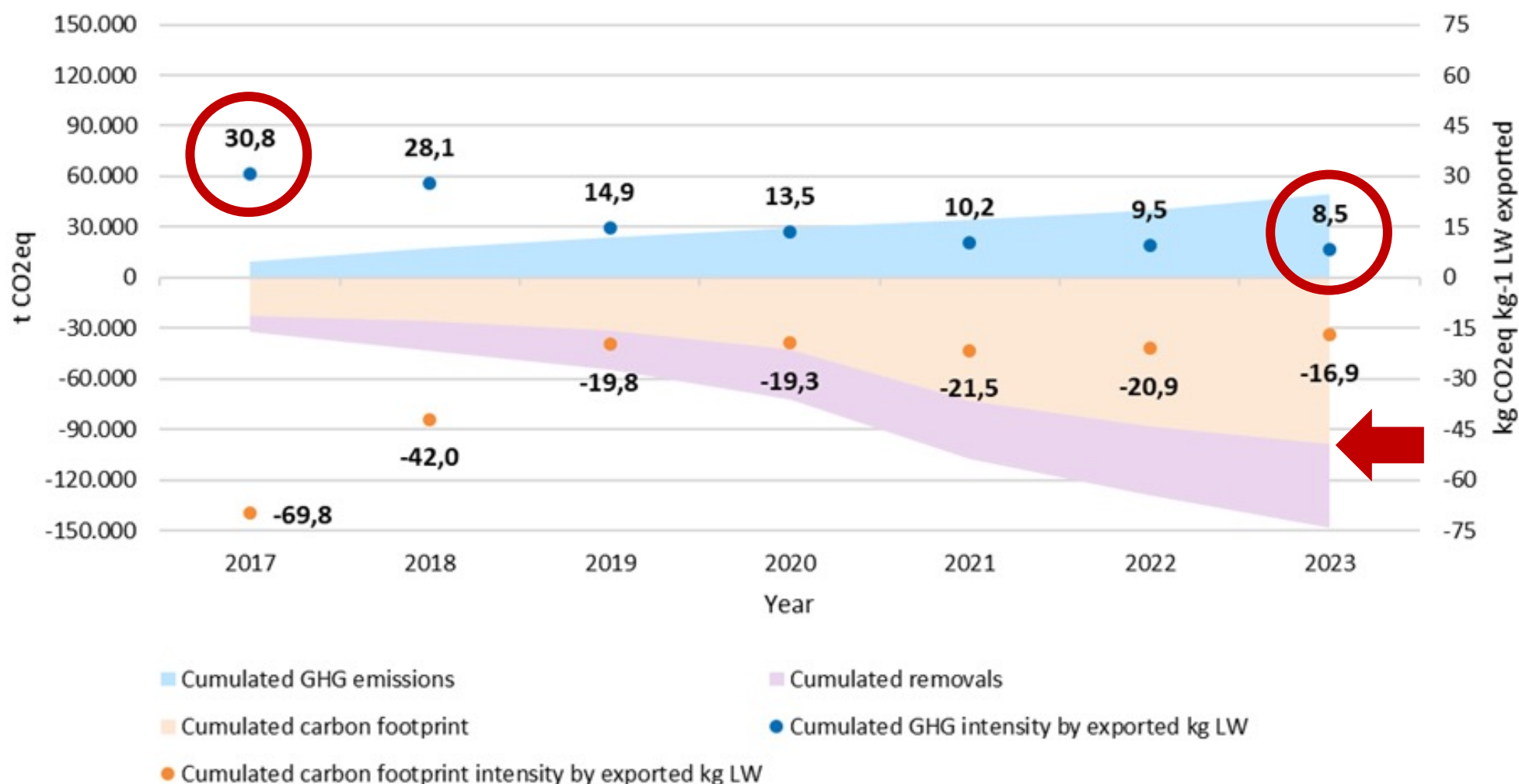
## The case of Hacienda San Jose - Why HSJ?



- **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 Orinoquia 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

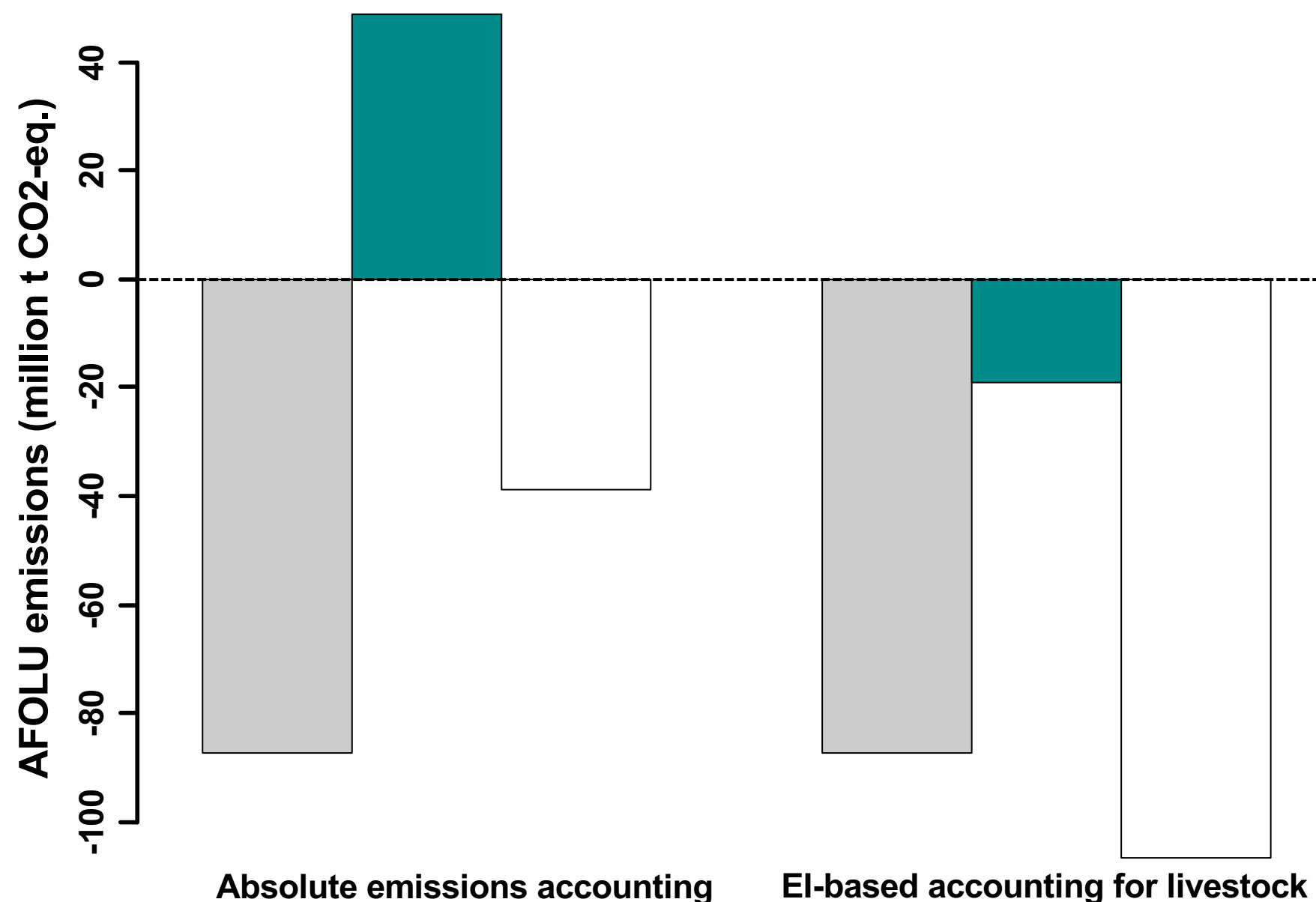


## Net removals drivers

- 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
- 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

- **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

■ AFOLU mitigation scenario  
■ Cattle project scenario  
■ Landscape level emissions

Lessons learnt:  
from HSJ to  
global  
opportunities



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 CO<sub>2</sub>-eq. for HSJ only, but only 0.04-0.08 USD/t CO<sub>2</sub>-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**

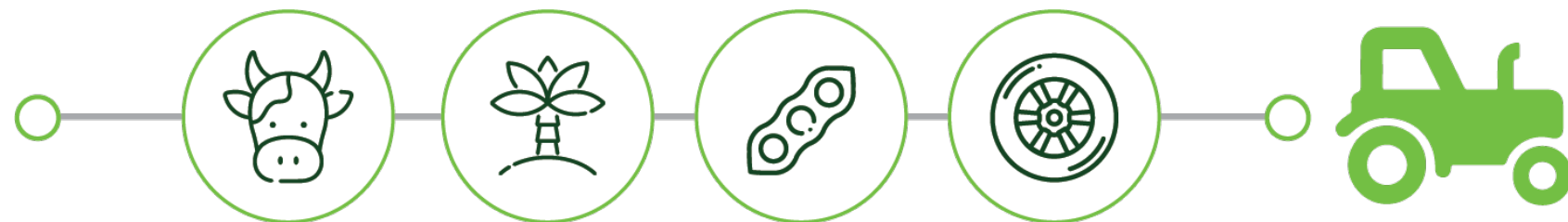


&GREEN HAS A SPECIFIC COUNTRY-LEVEL INVESTMENT STRATEGY

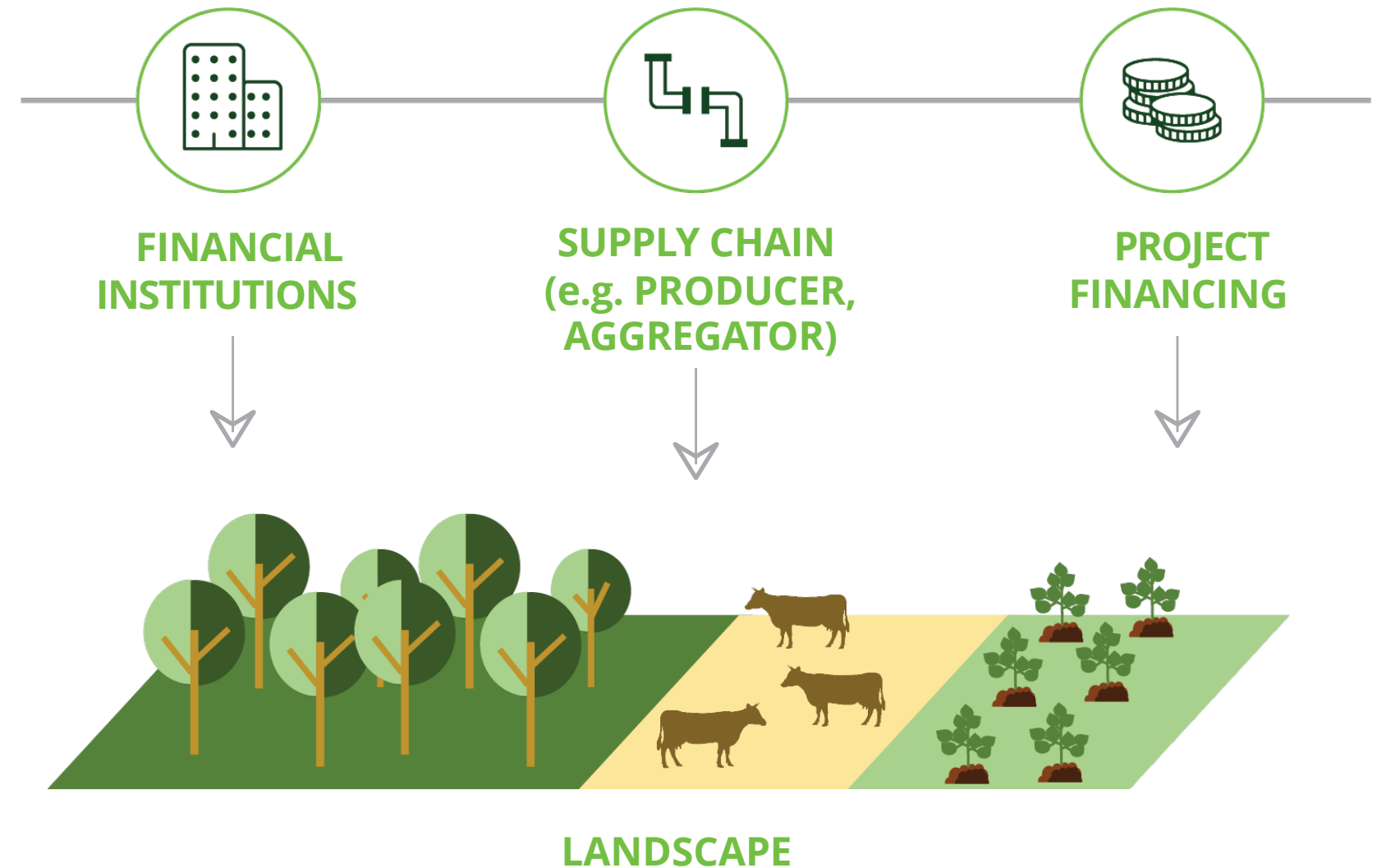
01 We identify the main drivers of deforestation at country level.



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

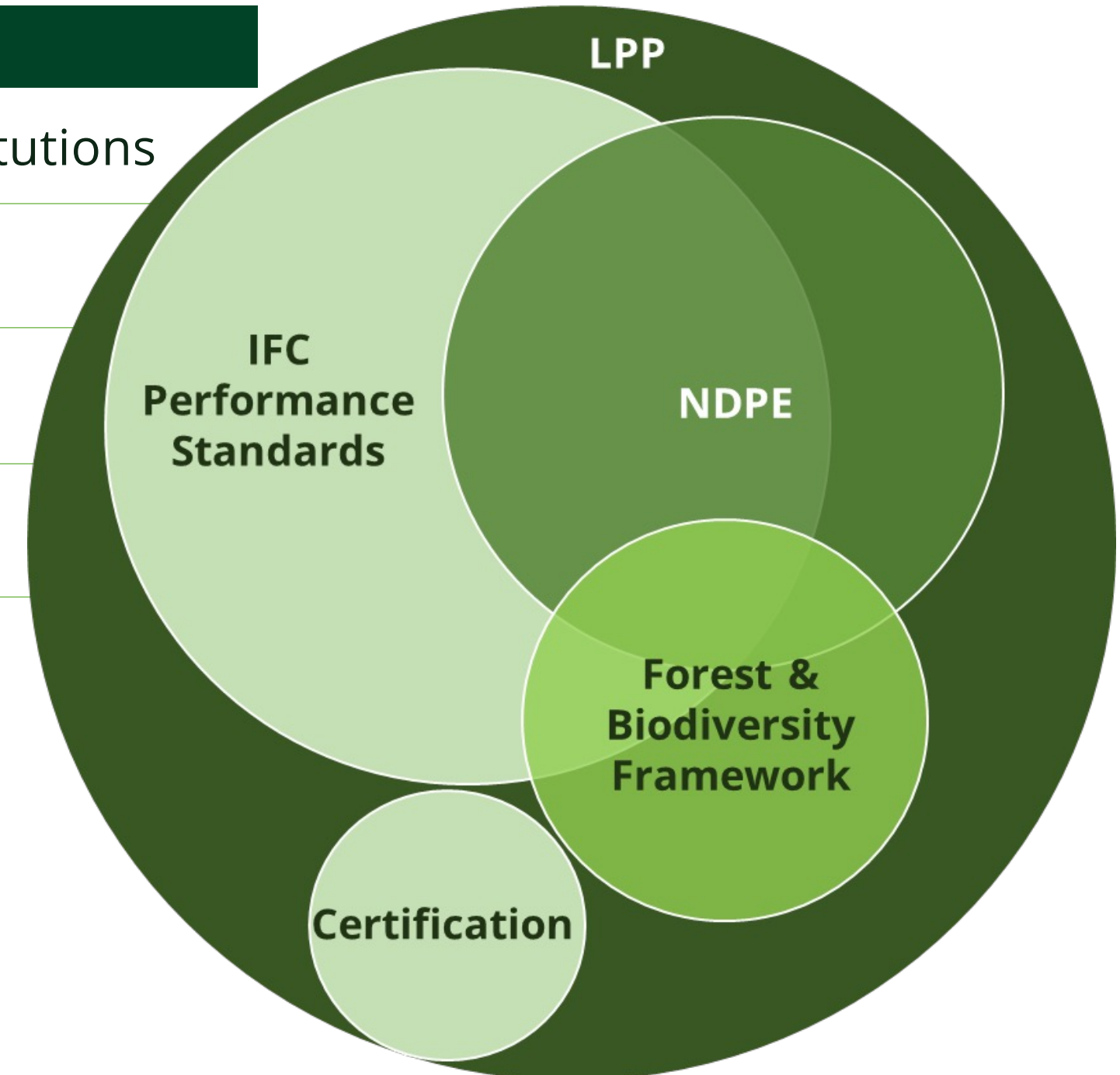


03 We look for opportunities to transition these sectors to being fully sustainable and deforestation-free.



&GREEN INVESTS IN INDUSTRY INFLUENCERS WHO ARE ABLE TO LEAD THE TRANSITION TO SUSTAINABLE, DEFORESTATION-FREE AGRICULTURAL COMMODITY PRODUCTION.

<b>Borrowers</b>	Growers, Refiners/Processors, Traders, Financial Institutions
<b>Type</b>	Long term patient loans ( <b>5 - 10 years</b> )
<b>Amount</b>	Ticket sizes of USD <b>10 - 50 million</b>
<b>Interest rate</b>	Market-based, risk-adjusted returns
<b>Environmental &amp; social covenants</b>	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.

	RLU	RONCADOR	MARFRIG	DSNG	HSJ
<b>Country</b>	• Indonesia	• Brazil	• Brazil	• Indonesia	• Colombia
<b>Supply chain</b>	• Rubber	• Cattle/ Soy	• Cattle	• Palm Oil	• Cattle
<b>Loan size</b>	• USD 24m	• USD 10m	• USD 30m	• USD 30m	• USD 7.5m
<b>Emissions benefits (tco2e per year)</b>	• >500,000	• >1,000,000	• >20,000,000	• >100,000	• >500,000
<b># People with increased resilience</b>	• >8,000	• >1,000	• >50,000	• >20,000	• >1,400
<b># Ha ecosystems with increased resilience</b>	• >70,000	• >200,000 <sup>2</sup>	• >1,200,000	• >6,000	• >205,000

CLIMATE  
BENEFITS

## 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 supplies pushed from meatpacker to producer.
- **Scale:** 2<sup>nd</sup> 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](http://www.andgreen.fund)

**SAIL**

**VENTURES**

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**THANK YOU**