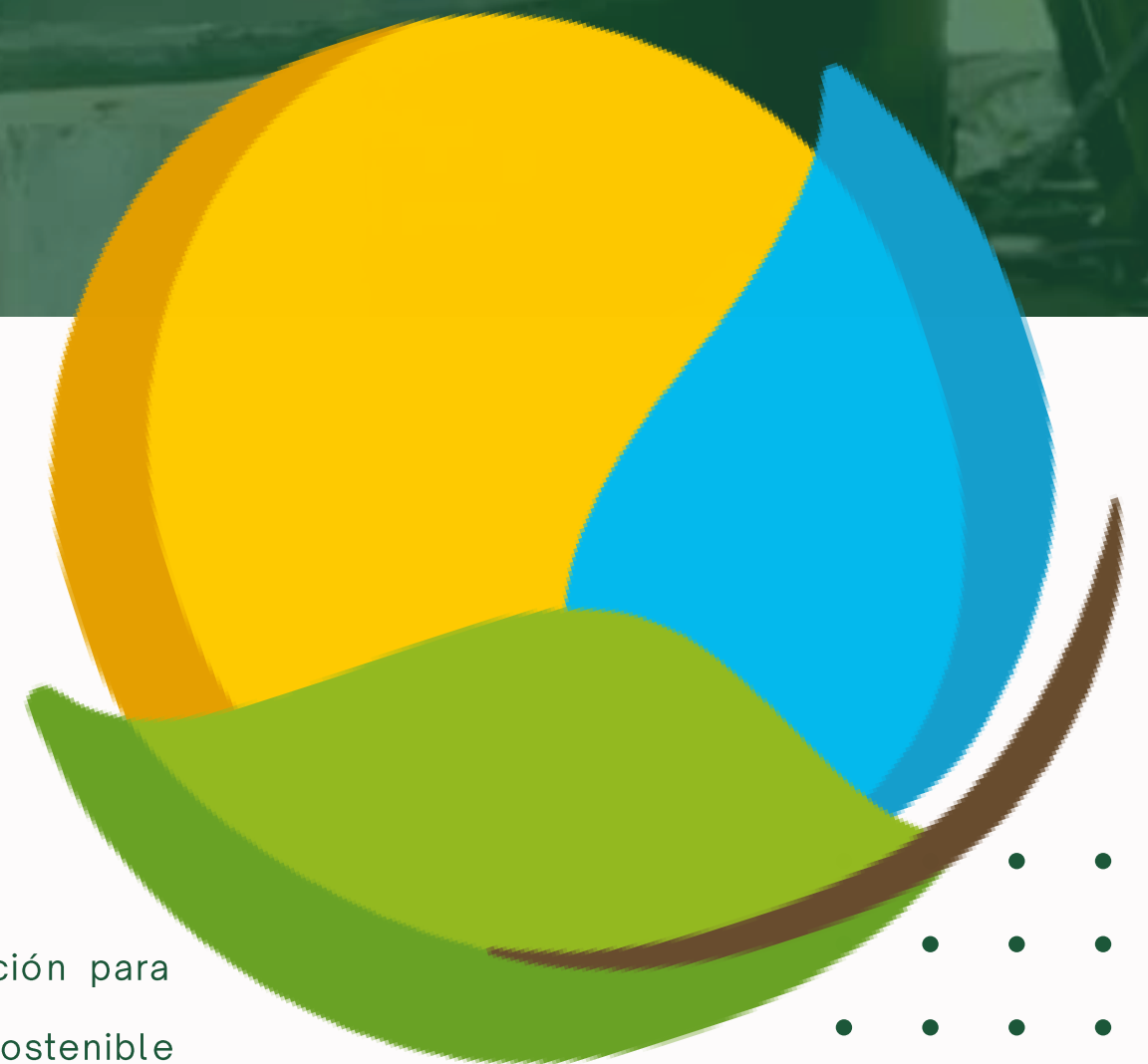




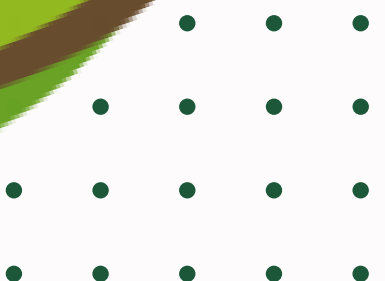
# Fundecooperación

## Final Presentation

Determining the Impact of Small-Scale Sustainability Efforts



Fundecooperación para  
el Desarrollo Sostenible



# Introductions



Juliana  
Fox  
IE



Sophia  
Lally  
BME



Maksymilian  
Robidoux  
ME



Vaughn  
Weston  
MIS



# What is sustainability?

*¿Qué significa para usted "ser sostenible"?*

# Sustainability

La Sostenibilidad



## *Environmental*

Reducir la Huella de Carbono,  
Proteger los Hábitats naturales,  
Minimizar los Residuos, Cambiar  
a Recursos Renovables



## *Social*

Practicar el Comercio Justo,  
Mejorar las Oportunidades  
Igualitarias, Brindar Educación,  
Promover Comunidades  
Sostenibles



## *Economic*

Implementar Ideas de Ahorro de  
Costas, Crear Empleos a través  
de Tecnologías Innovadoras,  
Tecnología Verde, Mantener la  
Cadena de Oferta y Demanda

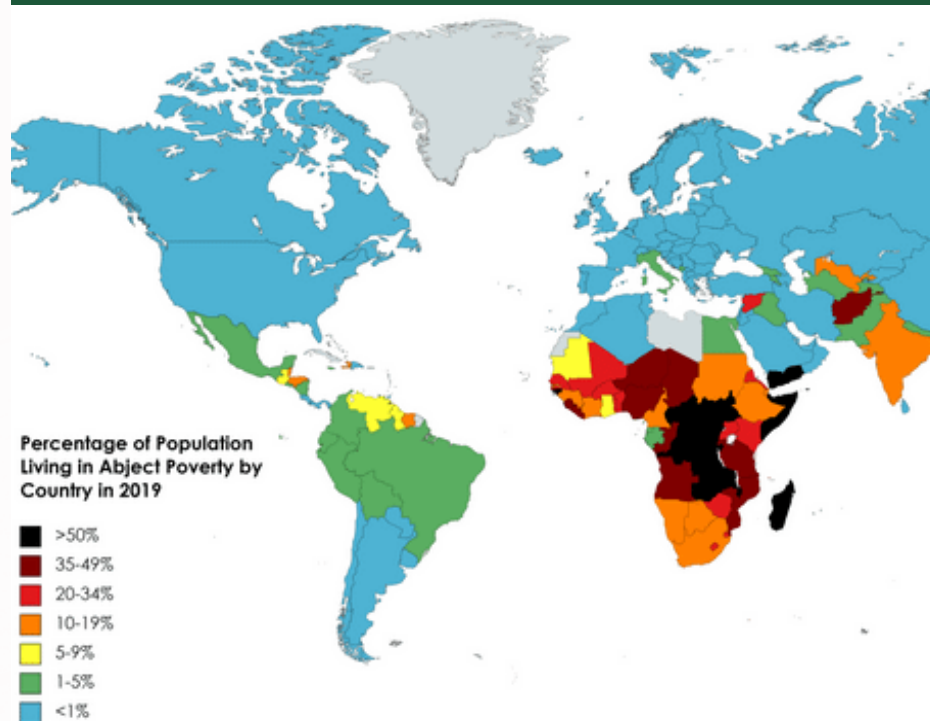
# Why is Sustainability Important?

## Global Warming



*La sostenibilidad promueve prácticas que reducen las emisiones de gases de efecto invernadero, minimizan el agotamiento de recursos y formentan el equilibrio ecológico*

## Poverty



*La sostenibilidad alivia la pobreza al garantizar un acceso equitativo a los recursos, promover oportunidades económicas mediante tecnologías verdes y energías renovables*

## Systemic Oppression



*La sostenibilidad combate la opresión sistemática al promover la toma de decisiones inclusiva, la distribución equitativa de recursos y el empoderamiento de comunidades marginadas*

# Fundecooperación

## Mission

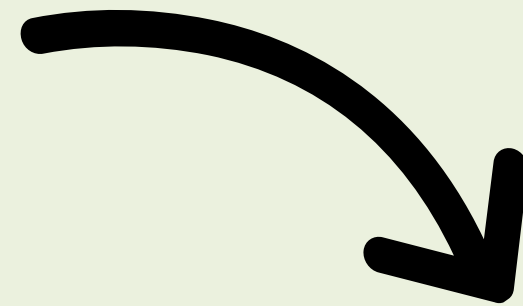
*"We finance sustainable development through innovative, inclusive programs and, to the extent possible, adapted to the economic, social, and environmental needs and opportunities of micro-, small-, and medium-sized enterprises in Costa Rica."*

*"To be the national standard in sustainable development financing that generates greater positive and inclusive social, environmental, and economic impact in Costa Rica."*

## Vision

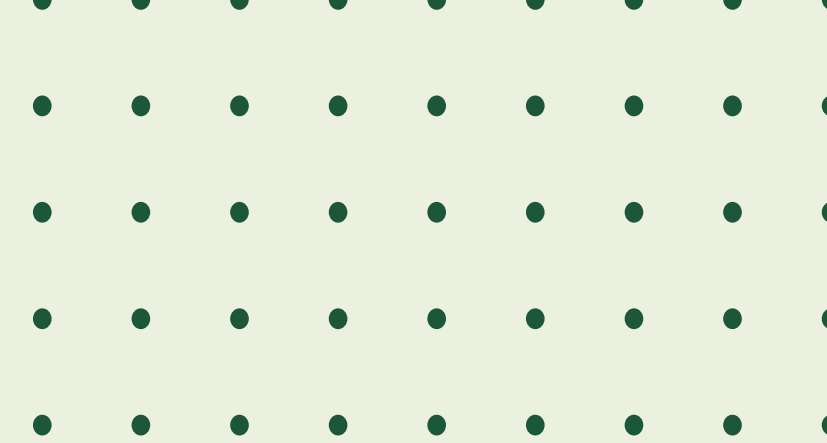
# The Problem

Fundecooperación currently lacks a structured method for assessing the impact of their sustainability practices implemented by their clients.

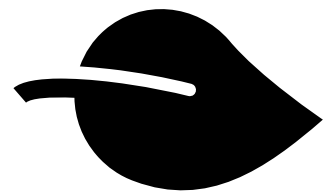


## Our Goal

Effectively showcase this impact by creating a well-organized database profile within Salesforce. This platform should be easily navigable and designed to serve as a long-term solution for tracking and presenting pertinent data.



# Objectives



## Objective 1

Observe and identify what information FDS currently has in their database to establish a baseline.

## Objective 2

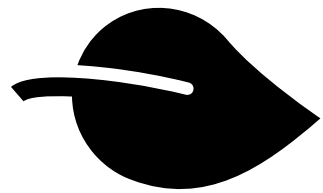
Define specific indicators to measure and evaluate the impact of FDS practices.

## Objective 3

Create an accurate data collection method for displaying the impact of FDS sustainability practices.



# Background



## *Research*

- *How can we measure impact of sustainability practices?*
- *How has climate change effected Costa Rica?*
- *Who is FDS and what do they do?*
- *.How can we measure impact on each pillar?*
- *What is salesforce and how does it work?*
- *No universal standard (varies company to company)*

# Objective 1

## How?

*Assessed FDS Salesforce Database*

*Acquired FDS Excel and Agroclimatica files*



## *Salesforce*

- Client information stored in accounts
- Credit Analysis
- Data was not uniform

Data  
client

# Excel



## Excel

- Low amount of quantitative data
- Technical Analysis

Finance	Weight:	8.8%	Qualification:
Element to evaluate	Weight	Parameter	
Do they affect external economic variables? (exchange rate, imports, FTA)?	15%	No	
Clients: approximate number of clients	5%	More than 10 clients	
Suppliers: approximate number of suppliers	5%	More than 4 suppliers	
Does the client master/know the break-even point of the business?	15%	Yeah	
What are the payment methods you offer to your clients?	15%	Counted	
Do you maintain a bank account to manage project income?	15%	Yeah	
Detail of the level of debt (formal and informal) of the business	15%	Between 0% and 10%	
Accounting/Financial Statements	15%	Clear and regular records	

# agroclimatica

## Risk Analysis

Creates a risk score level on data collected which shows how at-risk clients are from climate change-related effects.

### Client Data

Collects data on clients like CO2 emissions in tons per hector, agriculture or livestock of clients, and temperature and humidity of client locations

agroclimatica RISK SCORE		Fundecooperación Desarrollo Sostenible	
Report ID	6710640		
Report date	11/29/2023		
Credit officer	Nicole Chacon		
Client ID	204000240		
Customer name	[REDACTED]		
Productive cycle	12/08/2023 - 12/07/2024		
cattle breed	BRAHMAN X SWISS PARDO		
Location of the farm	SAN JOSE O PIZOTE		
	Latitude	10.893414	Length



CO2 meter	Risk level
This activity presents high carbon footprint emissions	High 7.22

A semi-circular gauge for CO2 emissions. The left side (blue) represents carbon capture (Captura +) with levels: Alta, Media, Baja. The right side (dark blue) represents carbon emission (Emisión -) with levels: Baja, Media, Alta. A central white segment is labeled 'Neutral'. A needle points to the 'Alta Emisión' level.

A semi-circular gauge for risk level. The scale ranges from 0-1 (green) to 9-10 (red). The needle points to 7.22, which is in the red 'Alto' (High) risk zone.

- Also describes what aspect of a client's business is at risk and how

 <b>Climate risk</b>	<b>High</b>
<p><b>There is a high risk of climate stress for livestock; high risk of climatic stress for grass due to precipitation and average temperature. The selected area is exposed to risks of drought and the El Niño phenomenon.</b></p> <ul style="list-style-type: none"> <li>• The average temperature is 24.6 °C.</li> <li>• The average relative humidity is 80%.</li> <li>• The accumulated precipitation is 2556 - 3124 mm.</li> <li>• The elevation of the site is 51 - 100 meters above sea level</li> </ul>	
 <b>Soil risk</b>	<b>Half</b>
<p><b>It is identified that there are moderate soil restrictions for the adequate development of livestock activity, mainly due to slope, erosion and texture.</b></p> <ul style="list-style-type: none"> <li>• The vocation of the soil is livestock, with a clay texture.</li> <li>• The slope is 0-2%.</li> <li>• Moderate degree of erosion.</li> </ul>	

# Practices Analysis

Ex

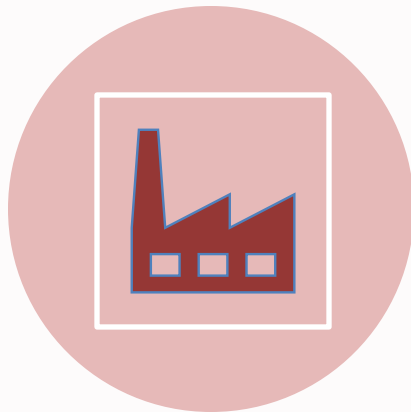
Given FDS employs over 80 practices we have organized them into their perspective categories

- Each practice is assigned to MSMES based on their risk assessment and industry type

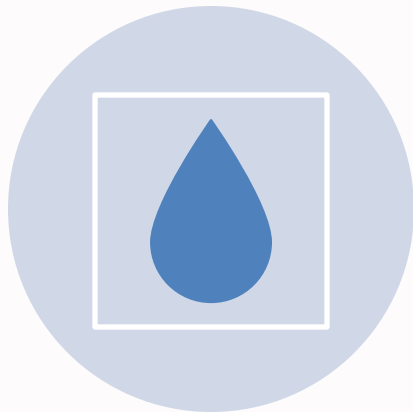
<i>Sector</i>	<i>Practices</i>
<i>Livestock</i>	<i>Fog collectors, Forage Pastures, Forage Banks, Pasture Management and Rotational Grazing, Permaculture, Protected Environment for Livestock, Respect for the minimum maturity sizes of species, Silage, Sustainable Forest Management, Trees in Pastures, Aquaculture, Beekeeping</i>
<i>Agriculture</i>	<i>Agricultural Drainage, Agricultural Terraces, Agrosilvopastoral System, Coffee Fertilization Practices, Biodigestors, Conservation Agriculture, Crop Diversification, Crop Rotation</i>
<i>Commerce</i>	<i>Waste management, water harvesting</i>
<i>Industry</i>	<i>Seafood Traceability Program,, Filter Presses, Fire Break Strips, Fishing Methodology Without Hooks, Fishing Only Non-Endangered Species</i>
<i>Service</i>	<i>Ecotourism</i>

Data was provided by client, making

# Confirming Our 4 Main Indicators



*CO<sub>2</sub> EMISSIONS*



*WATER USAGE*



*ENERGY CONSUMPTION*



*WASTE REDUCTION*

Data was not uniform from client to client, making comparisons difficult.



# Objective 1 Findings

Outlined data that would be useful for further data collection

- Client info
- Financials (assets & debts)
- Risk analysis

Practices organized by sector :

- Identified possible indicators that can be used to measure the impact of each practice
- Identified units of measurement

**Objective 2**

**How?**

*Impact Evaluation Interviews*

*Comparing Data*

# Interview 1



Karla y Margarita

## Karla

*"Ser sostenible es tener provecho para que yo pueda vivir bien sin hacer daño a la naturaleza, que siempre seamos un complemento naturaleza y proyecto juntos cómo procurando hacer cosas que no dañen al medio ambiente y que nosotros podamos tener también una ganancia para poder subsistir y vivir bien pero no solo nosotros, también tienen que vivir bien las vacas."*



Technologías de ordeño



## Practices:

- Cercas vivas
- Mejoramiento genético
- Forraje de alta calidad (pastoreo rotacional)
- Cosecha de lluvia

## Interview 2



*¡Perritos!*

### **Yendry**

- *Salón de Belleza*
- *No utiliza ninguna práctica específica*
- *Utiliza la inversión de Fundecooperación para suministros para su negocio*
- *No hace un seguimiento de ningún indicador, y será difícil diferenciar el uso de energía/agua entre el estudio en sí y la casa en su conjunto*



# Interview 3



Dentro del Trapiche

## Roger & Edwin

- *El trapiche tiene 20 años*
- *Todavía no han recibido oficialmente ningún crédito de Fundecooperación*
- *Son un amplio conocimiento de las prácticas de Fundecooperación, planean utilizar el préstamo para el mantenimiento del trapiche*
- *Actualmente no realizan un seguimiento de ningún indicador*



Carne de caña de azúcar

# Researching Indicators

- We had to conduct research on every practice
- Which indicators best demonstrate their impact?
- How feasible are these indicators to measure?



For example, we found that animal quantity, herd fertility, and livestock yield were the best indicators for the impact of forage pastures

For each practice we outlined indicators that would be used to measure the impact on the sector

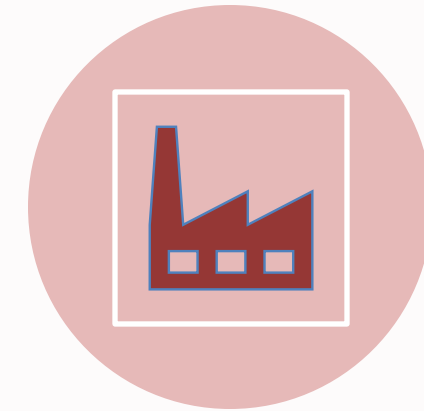


## Confirming indicators

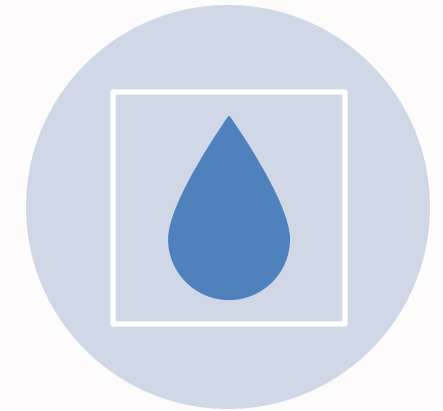
Animal quantity Herd fertility Livestock yield	Practice: Forage Banks
Crop yield Water Usage Soil health	Practice: Conservation Agriculture
Animal quantity Fish yield	Practice: Seafood traceability program
CO2 emissions Energy consumption	Practice: Ecotourism
Waste reduction CO2 emissions Water usage	Practice: Waste Management

# Comparing Data

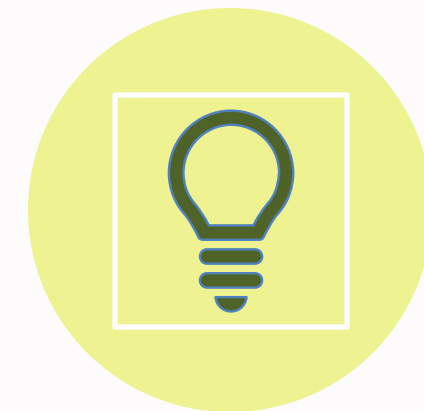
By comparing data obtained from the interviews, Salesforce database, Agroclimatica risk analysis, files, and research we were able to establish sustainability indicators that could be measured by FDS to be input into Salesforce



*CO<sub>2</sub> EMISSIONS*



*WATER USAGE*



*ENERGY CONSUMPTION*

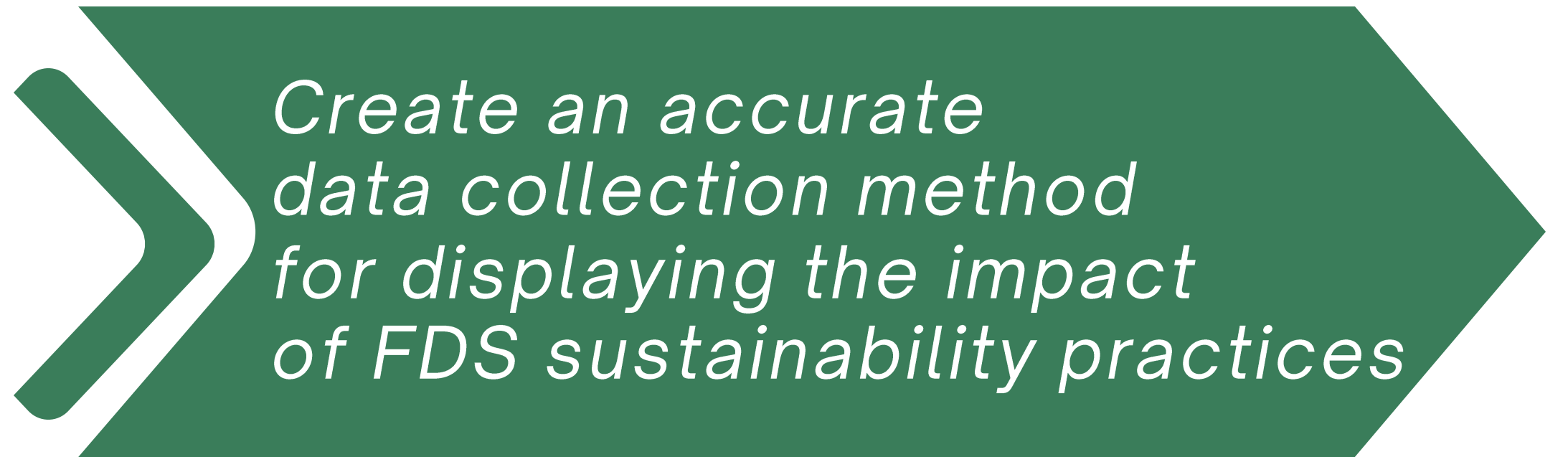


*WASTE REDUCTION*

was not uniform from client to client, making comparisons



# Objective 03



*Create an accurate data collection method for displaying the impact of FDS sustainability practices*

# EcoEval

The EcoEval determines the change in the sustainability indicators of the clients.

EcoEval  
**EcoEval-0001**

Modify Eliminate Double ▾

Account SALGADO CRUZ MIRIAM Evaluation date 02/27/2024

Sector \_\_\_\_\_

> Economic

> Social

∨ Environmental

Climate risk level	CO2 meter
Rate risk	CO2 capture per year
	Organic CO2 in the soil
Climate risk	Water use
Soil risk	Waste reduction
Crop/livestock risk	Electrical consumption

# Sustainability Practices Data Collection Sheet

The practices tracking sheet will look at indicators identified as relevant to the practices that FDS helps implement

Prácticas sostenibles  
**PS000000**

Modificar Eliminar Duplicar

### Detalles

▼ Detalle de la prácticas

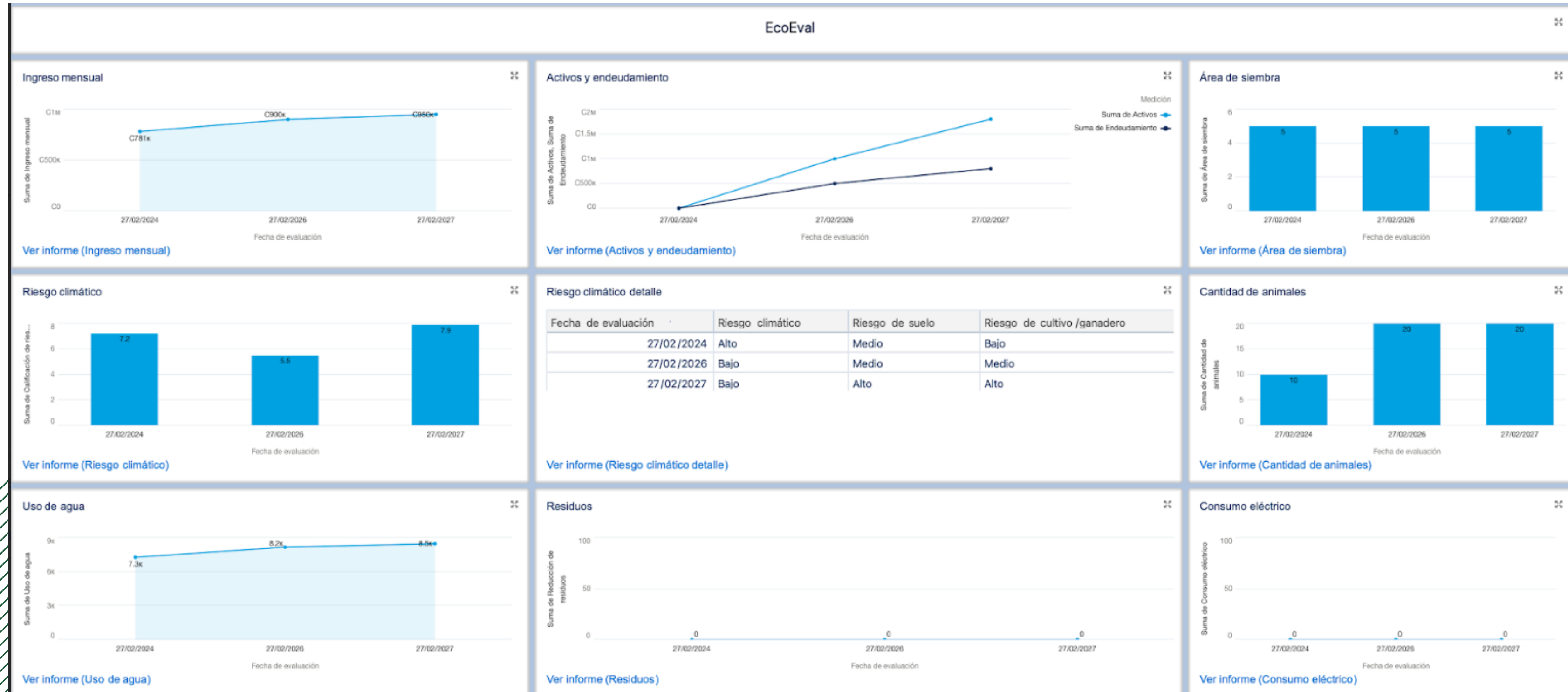
Cuenta	SALGADO CRUZ MIRIAM	Estado	Implementado
Sector	Pecuario	Inversión o financiamiento	
Práctica	Ensilaje	Comentario adicional	

▼ Información del sistema

Creado por Estiven Gonzalez , 27/02/2024 11:16 AM

Última modificación por Estiven Gonzalez , 27/02/2024 03:10 PM

# Salesforce implementation



# Our Recommendations



- FDS can run analyses on our indicators once collected
- Run Agroclimatica every year
- Educating clients on what sustainability is
- Evaluate the effectiveness of indicators in their measurement of impact
- Creating dashboards showing effects on a geographic level using maps

# La Conclusión



When we measure our impact, it's like getting clear feedback on our progress, helping us make informed decisions for a sustainable future

- minimizing risks
- gaining support
- fostering strong connections with our community
- it ensures FDS can stay compliant, secure our long-term presence, and demonstrate their commitment to responsible actions

Understanding and implementing sustainability practices is a strategic advantage for FDS clients, contributing to a brighter and more sustainable future for all.





# Thank You

¿Preguntas?

Muchísimas gracias a todos los que nos ayudaron con este proceso, especialmente Estiven, Holly, y Jim, y espero que hayamos podido ayudarlos a lograr su objetivo.