



Latin America Region

REGENERATIVE RANCHING & AGRICULTURE (R2A)

May 2020



THE CURRENT SITUATION



 70% Of habitat conversion in Latin America comes from the ag sector (3 times global rate!)	 50% Of agricultural lands in Latin America have some level of degradation	 1/3 Of global GEI emissions come from ag sector (including land conversion, where LAR is major contributor)
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LESS
Energy/Materials Required

HAS STRATEGY



Systems Approach
Natural Climate Solutions
REGENERATING



CONVENTIONAL

GREEN

SUSTAINABLE

RESTORATIVE

REGENERATIVE

DEGENERATING
Extractivistic Design
Reductionist Thinking

Long term resilience and socio – economic development

CO₂ capture and sequestration
Double organic content in soil in agroecological vs. conventional production

Stability and resilience in ag productivity

- FAR FROM NATURE

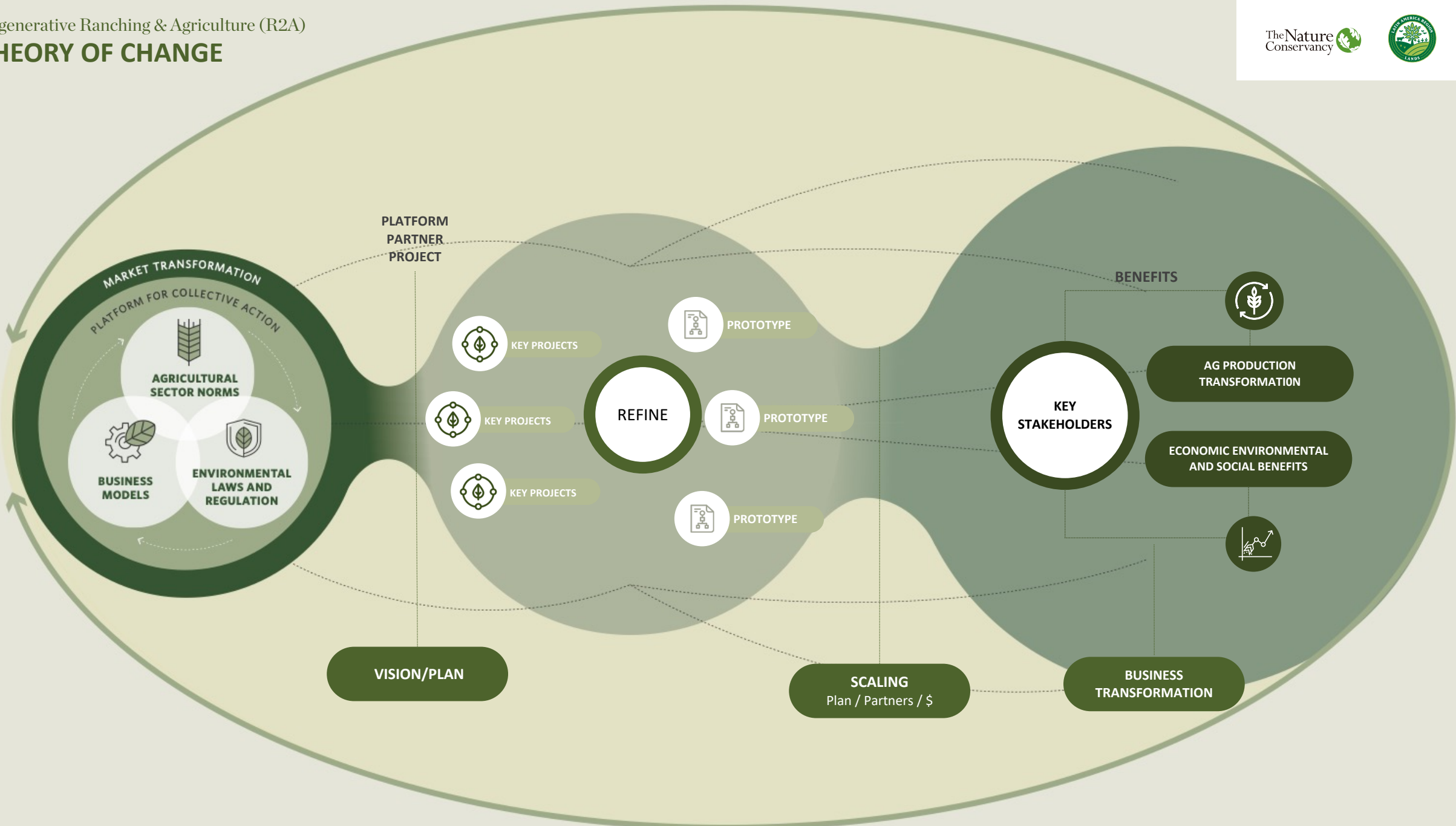
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MORE
Energy/Materials Required

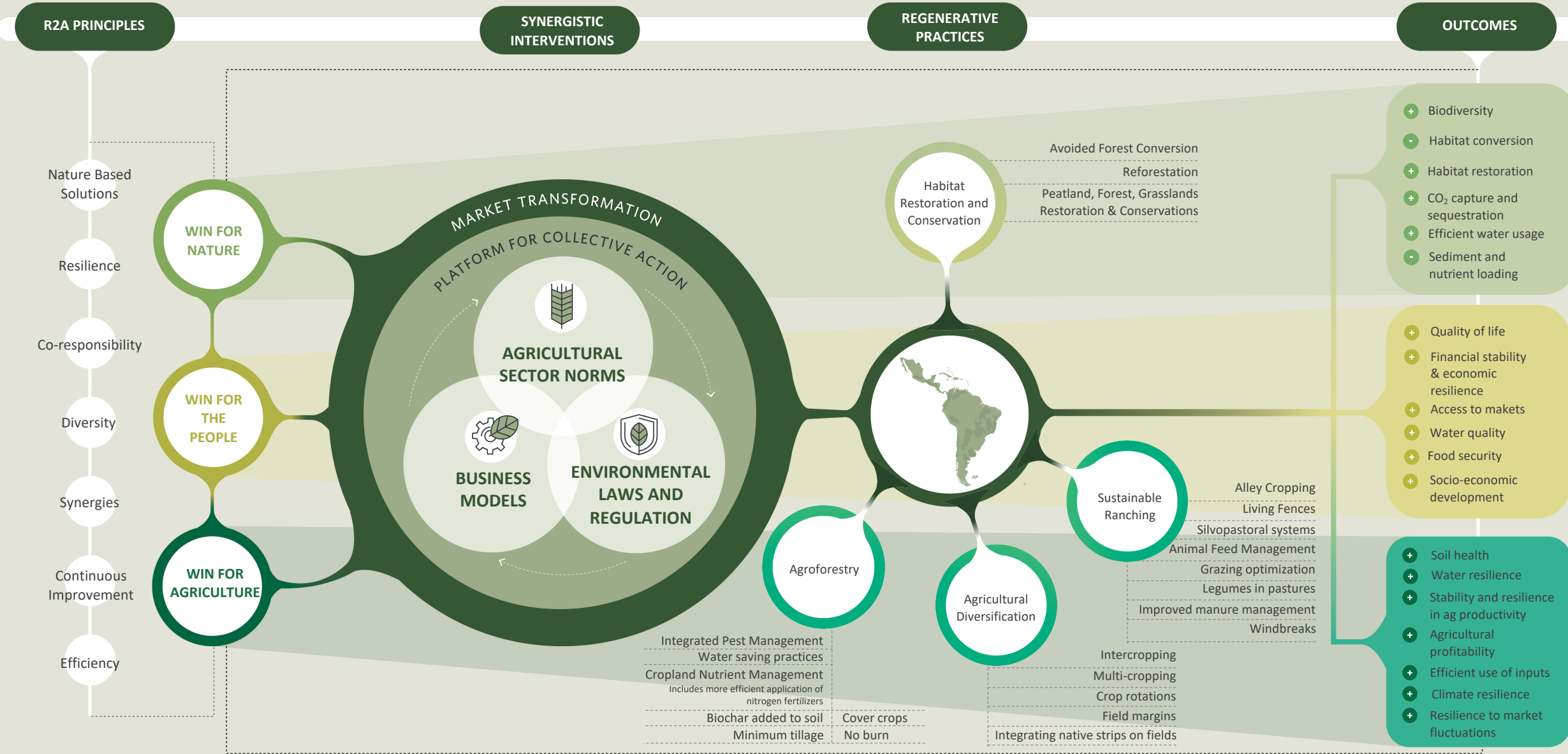
CLOSE TO NATURE

+

THEORY OF CHANGE



STRATEGIC FRAMEWORK





HAS IN OPERATION

2018-2020

Put implementation plans into action in 3-4 landscapes in **Argentina, Brazil and Colombia**



REFINING & BUILDING

2020-2022

Establish 3 additional action landscapes with metrics and implementation plans

Measure performance of implementation and initial impact



SCALING STRATEGY

2023-2027

Implement in **6-8 landscapes** directly and **4 through partners**

Achieve region-wide changes in ag norms, environmental laws, and market value

R2A 5-YEAR IMPACT GOALS

Across 7 action landscapes*

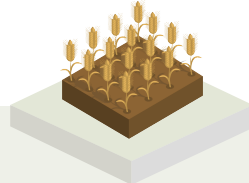
45% of target goal currently achieved.



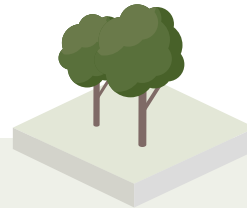
5 million hectares of degraded soils restored for productivity on crop and livestock lands (2027 target: 9.6 million ha)



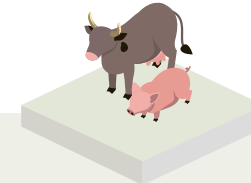
0.55 Gt CO₂e captured below and above ground on agricultural or pasture land under HAS management practices (10 year target 1.1 GT CO₂e)



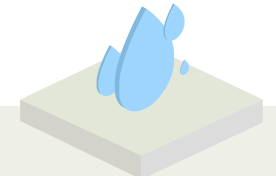
Model and pilot farms demonstrate increased productivity [and profitability] of agriculture and ranching systems under HAS management practices



2.1 million ha of habitat land under improved management**



Increase biodiversity in productive systems and reduce habitat loss



Reduce water depletion and sediment and nutrient loading in priority basins

SCALING ADOPTION

Across Action Landscapes

To achieve system impact in the long term, TNC will:

- Focus on nucleus points of the action landscapes to pilot R2A interventions
- Implement, evaluate and build visibility for successful interventions with partners
- Across R2A multi-stakeholder platforms, replicate and scale up successful R2A projects throughout and across action landscapes.
- By 2027, R2A adoption will spread to at least 10 action landscapes to contribute towards regional agricultural sector transformation.

CORE AREA TO ACTION LANDSCAPES WITHIN BU



CORE ACTION LANDSCAPE. IMMEDIATE IMPLEMENTATION



CURRENT ACTION LANDSCAPES



Progress on Action Landscape: Colombia Large-Scale Impact

SUSTAINABLE RANCHING

WHERE DO WE WORK?



REGIONS

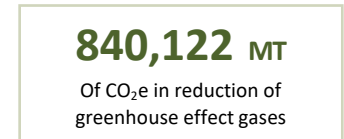


DEPARTMENTS



MUNICIPALITIES

PROGRESS



R2A SYSTEMS APPROACH

PROGRESS ON ACTION LANDSCAPE: COLOMBIA Northern Andes and Orinoquía

At-scale impact



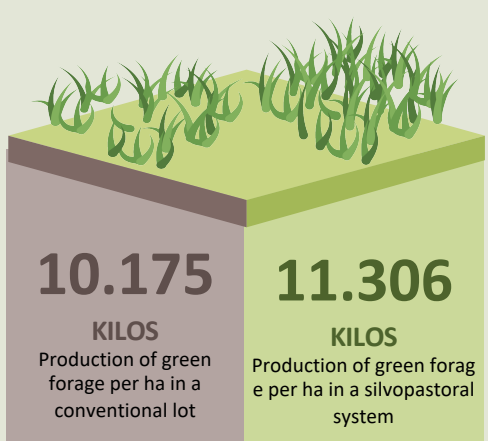
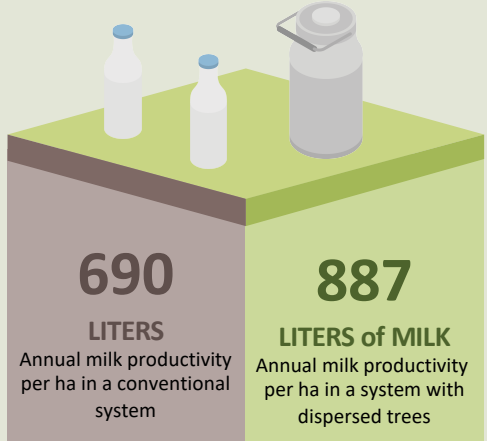
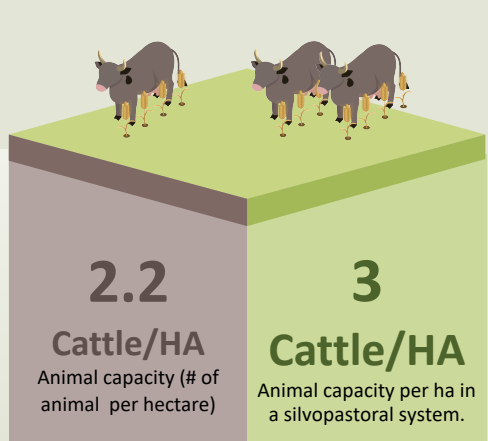
REGENERATIVE

Silvopastoral systems implemented in more diverse landscapes with natural habitat conserved in paddocks, living fences, shaded areas, natural sources of water isolated from livestock

PROTOTYPES

DISPERSED TREES

Trees scattered in paddocks generate environmental and productive benefits such as shade, nitrogen fixation, wood, food and fruits. It is recommended to have 35 trees minimum per hectare.



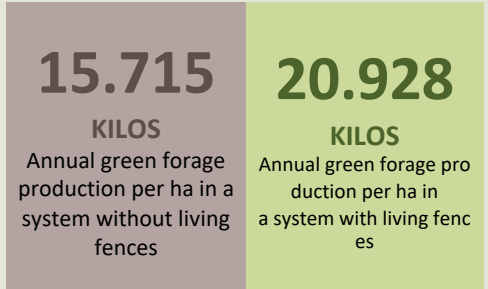
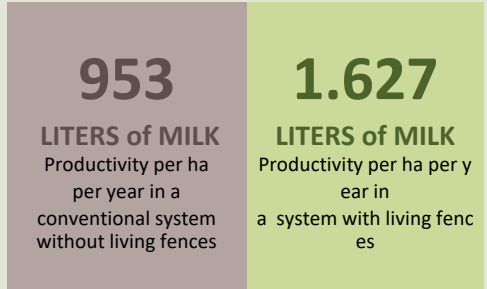
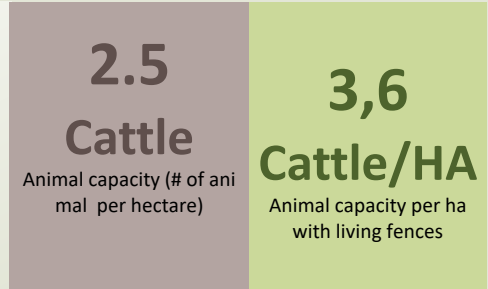
CONVENTIONAL

Use grass-based systems and extensive models with little diversity.

In some areas associated with natural habitat transformation due to logging, burning, water use and soil degradation. Over-grazing is common.

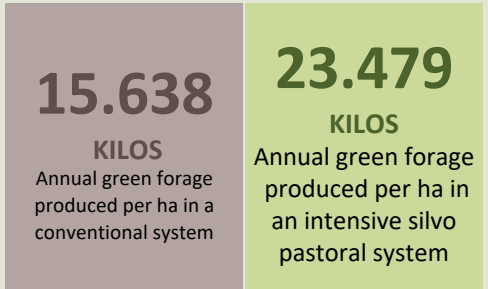
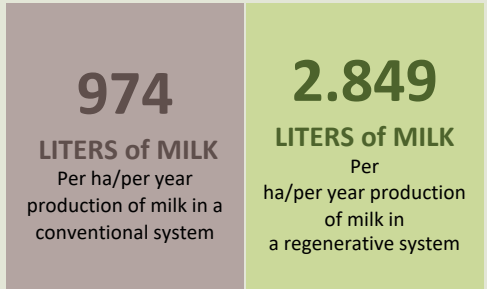
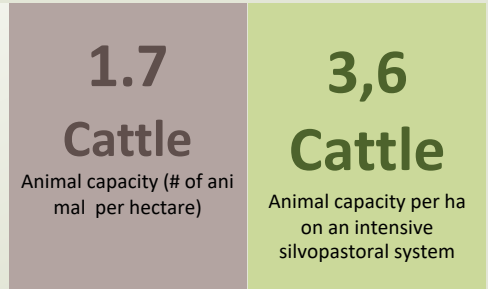
LIVING FENCES

Planted trees and shrubs of different species in high density replace wooden or cement poles and wires. They serve as fodder and also as ecological corridors enabling wildlife passage.



INTENSIVE SILVOPASTORAL SYSTEMS

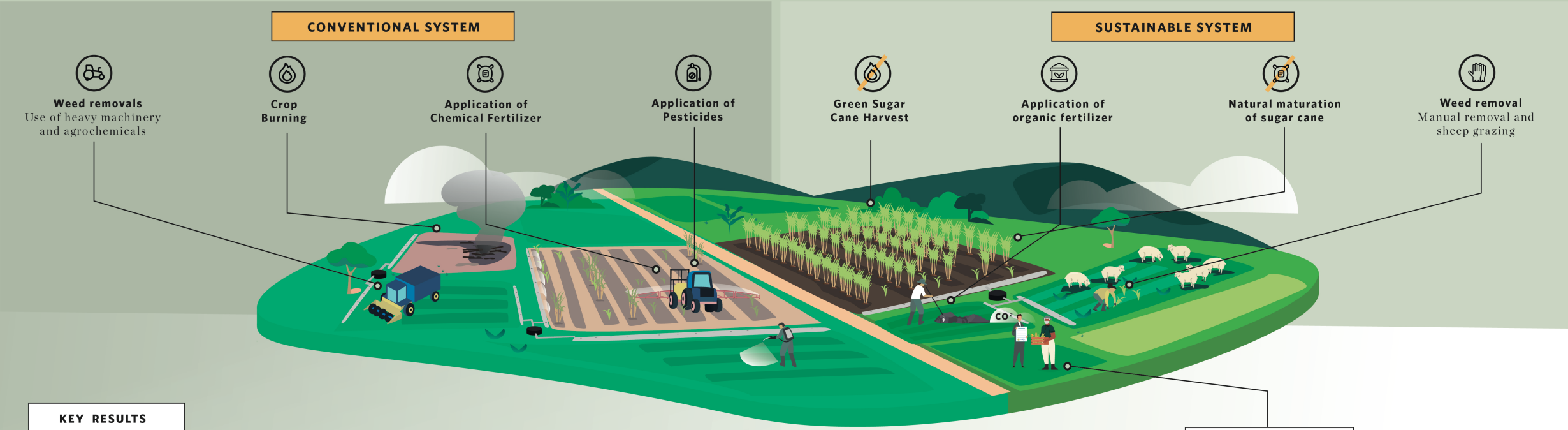
This combines the cultivation in pastures, high-density forage shrubs, fruit trees and carbon storage in wood. Additionally, there are paddock rotations and a permanent water supply.



Regenerative Ranching & Agriculture (R2A)
SUGAR CANE PRODUCTION



📍 Valle de Cauca, Colombia | 📏 207,083 ha of area harvested for the cultivation of sugarcane in the geographical valley of the Cauca River | 🌧️ 95% receive supplementary irrigation



KEY RESULTS

🌿 Consumption of 1,235m³/ha less water

🌱 1.9% more organic soil matter

💧 Water savings of + 255 M m³/year equivalent to 2X the annual consumption of Cali, Colombia (2.5 million people)

BENEFITS

💧 No contamination of surface and underground water sources from agrochemicals

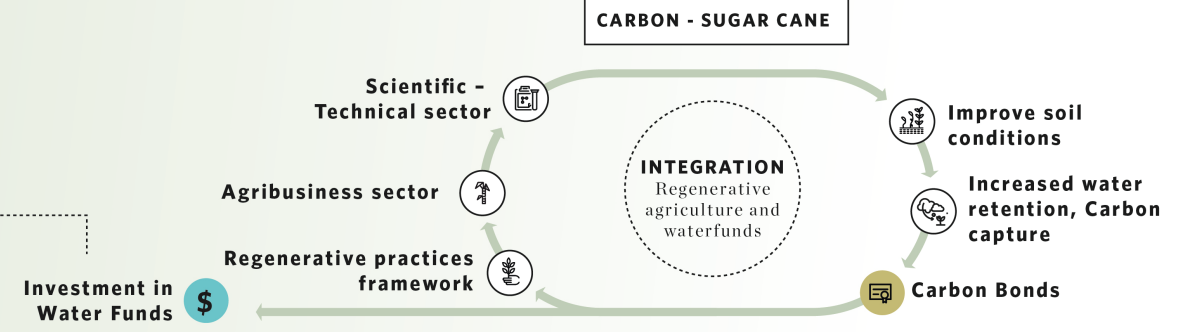
👤 Increased organic matter, which improves fertility and soil moisture retention

📉 Fewer CO₂ Emissions Generated

CO₂ Improves crop productivity and promotes carbon storage

🌿 Provides food and habitat for wildlife, which benefits biological pest control

⚡ Better production performance on a scale per ha, in relation to direct non-renewable energy consumption



R2A IN THE FIELD



BRAZIL ① Maranhão ② Mato Grosso ③ Goiás

PRINCIPLES

Resilience

Synergies

Efficiency

INTERVENTIONS



Implementation of sustainable practices



Agreements between farmers and banks



Farms and banks should comply with the agreements established

PARTNERS

AGRICULTURAL SECTOR

Enterprises + Gov. entities + Associated producers



VISITS TO FIELD



WORKSHOPS/ TRAININGS

PRACTICES ON FIELD

DURATION: Initial phase

Reforestation

Efficient water usage

Sustainable management of soil

Crop rotation

Silvopastoral systems

Holistically managed grazing

Restoration



OBJECTIVE

Encourage / influence on a larger scale integrated silvopastoral systems

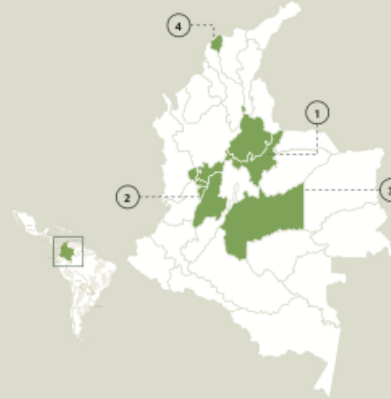
LEVEL OF IMPLEMENTATION
100,000 ha

OUTCOMES

IMPLEMENTATION PLAN: 3 years

OBJECTIVE:

Achieve of all HAS outcomes



COLOMBIA ① Boyacá y Santander ② Ecorregión cafetera ③ Piedemonte orinocense, Meta ④ Bajo Magdalena, Atlántico

PRINCIPLES

Nature based solutions

INTERVENTIONS



Sustainable livestock standards or criteria to work with the private sector



Contributions from the legislation of payments for environmental services and work with ministries



Successful case of silvopastoral system

PARTNERS

Fedegan, Fondo Acción, CIPAV, TNC, Fondo GEF, British Government & Wold Bank



COMMITTEES WORKSHOPS/ TRAININGS

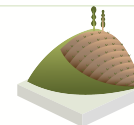
PRACTICES ON FIELD

DURATION: Since 2011

Restoration

Sustainable management of soil

Silvopastoral systems



Sustainable practices for the high tropics, implementing in colder areas

LEVEL OF IMPLEMENTATION
30,000 ha
Silvopastoral systems

150,000 ha
Properties under property planning

OUTCOMES

IMPLEMENTATION PLAN: 3 years

Habitat conversion

CO2 capture and sequestration

Efficient water usage

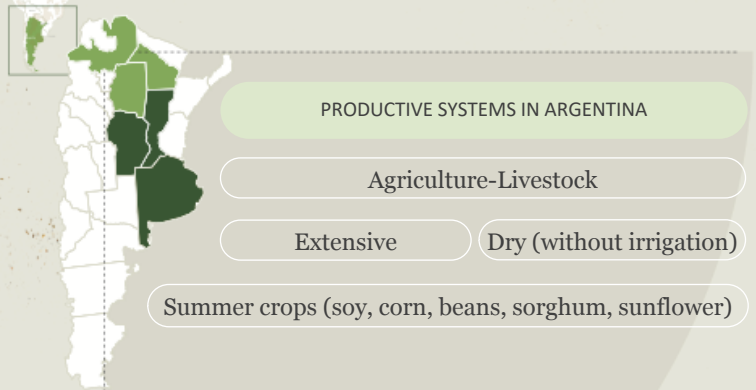
Sediment and nutrient loading

Climate resilience

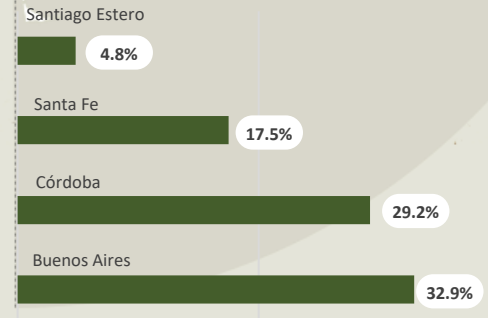
Agricultural profitability

SOY PRODUCTIVE SYSTEM

Regenerative Ranching & Agriculture (R2A)



Soy is Argentina's
Largest producing crop



Production 2017-2018
17.3 M hectares
37.8 M tons

PARTNERS

- + Agribusiness
- + TNC
- + Syngenta
- + Institutions (INTA, Ministeries, Universities, NGOs)
- + Associations (AACREA)

TOOLS

Workshops with producers and agribusiness



Best practices manual and a tool box adopted to agroecological conditions, environmental and social factors in the region..

WHERE WE WORK

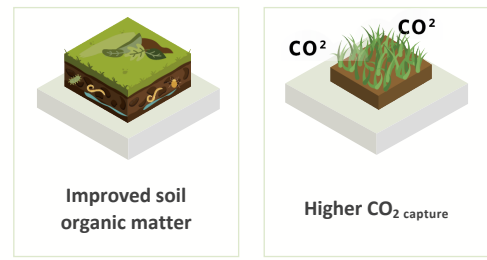
- ① Anta, Salta
- ② Copo y Pellegrini, Santiago del Estero
- ③ Almirante Brown, Chaco

PRACTICES

- No-till
- Precision agriculture to apply agrochemicals
- Integrated pest management
- Cover crops in non-planting times

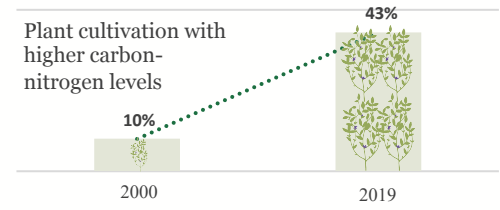
- No burn
- Reduction of agrochemicals
- Crop rotation
- Crop selection based on regional conditions

RESULTS



- + Connectivity of native ecosystems
- Fossil fuel consumption
- Carbon footprint and habitat conversion

ACHIEVEMENTS



The Nature
Conservancy



Latin America Region

REGENERATIVE RANCHING & AGRICULTURE
(R2A)

THANK YOU!