Soy

About this chapter

The content in this chapter pertains to calendar year 2023 unless otherwise noted. All data is for soy purchased and handled by our local sourcing business in South America unless otherwise noted.

For our previous soy progress reports, visit our **website**.

Supply chain overview

Our South American agricultural supply chain business sources soy in Brazil, Argentina, Paraguay, Bolivia, and Uruguay. The business stores, processes, and ships soybeans and other soy products to customers in the region and around the world.

133
country elevators

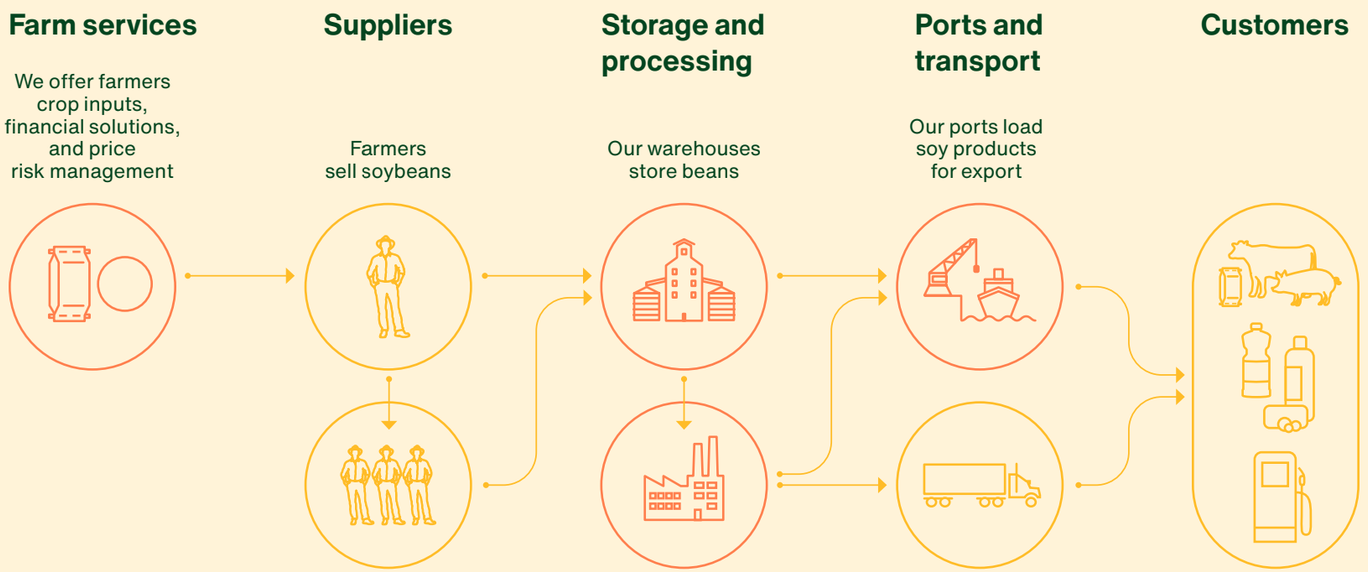
12
processing plants

20
ports

7
administrative offices

42
commercial offices

How our soy supply chain operates



Dashboard

Our agricultural supply chain business in South America buys soy both directly from farmers and indirectly from cooperatives, processors, and traders. The figures below are for calendar year 2023 and are for soy purchased and handled by our local agricultural supply chain business in each country.

We have mapped the farms of our direct suppliers in all five countries with polygon boundaries and use this information to calculate our deforestation- and conversion-free (DCF) figures. We also engage with indirect suppliers to drive change toward sustainable practices and end deforestation.

Going forward, we need to continually update our database of polygon maps, because our supplier base shifts somewhat each crop season and we continuously improve the accuracy of our mapping capabilities. Building this database has been a significant milestone in our journey to be able to monitor, report, and take action within our supply chain. It is made possible by the perseverance of our teams across the region to map and validate the operations of many thousands of suppliers.

FOCUS AREA	METRIC		PROGRESS *Argentina*	*Bolivia*	*Brazil*	Paraguay	*Uruguay*
Transparency	**Industrywide soy production (million tons)**		25.0[1]	3.2[2]	154.6[3]	9.5[4]	0.6[5]
	Approximate number of suppliers selling soy to Cargill		4,700	200	14,200	2,000	500
	Percentage of volume by type of supplier	Direct	80	56	60	39	85
		Indirect	20	44	40	61	15
Traceability	**Percentage of directly sourced volumes coming from suppliers whose farms have been polygon mapped**		98.25	100	99.99[6]	99.82	99.68
DCF	**Percentage of volumes estimated to be DCF based on a reference date of 2020**		99.8	96.3	99.3	99.8	100

How we calculated our DCF figures

Direct supply: For our directly sourced supplies in all five South American countries, we used polygon farm boundaries to calculate our DCF percentage. For direct suppliers in Brazil who own the land, we used automated consultation of the **INCRA-SIGEF website** and the **Federal SICAR website**. For direct suppliers in Brazil who rent land to grow their soy, as well as for direct suppliers in the other four countries, our commercial and administrative teams identified them and collected data.

Once these farm boundaries were identified, we analyzed historical satellite images from the U.S. Geological Survey and data from the University of Maryland to determine the percentage of soy volumes that came from farms where land had not been converted from native vegetation.

Indirect supply: For our indirectly sourced soy volumes in all five countries, we used the historical data above to calculate the DCF percentage for the full soy sector in every municipality or region. We then cross-referenced this sectoral average with our market share in the local area to arrive at a DCF percentage for our indirect supply in each municipality.

Total DCF percentage: To arrive at a total DCF percentage for each country, we calculated a weighted average for each municipality or region based on our local proportion of direct and indirect supplies using the two methodologies above, then tallied a weighted average for the entire country.

[1] Source: **Ministério de Agricultura, Ganadería y Pesca de Argentina (MAGYP)**

[2] Source: **Asociación de Productores de Oleaginosas y Trigo (ANAPO)**

[3] Source: **Companhia Nacional de Abastecimento (CONAB)**

[4] Source: **Instituto de Biotecnología Agrícola y Unión de Gremios de la Producción (INBIO-UGP)**

[5] Source: **Ministerio de Ganadería, Agricultura y Pesca (MGAP)**

[6] This figure is below 100% because we are still gathering polygons for one supplier.

Focus areas

Sustainable soy from South America

Our businesses source soy from all the major growing regions in the world. We are focused on South America as the highest-priority region for soy sustainability because it is home to vital landscapes such as the Amazon, Cerrado, and Chaco biomes that must be protected. Meanwhile, the region has grown rapidly in the last few decades to become a major source of the world's soy, and this growth has underpinned many rural economies and communities. We believe that forests and farms can and must co-exist, and our approach to enabling this is outlined in our **Policy on Sustainable Soy — South American Origins**.

"Sustainability is the key driver in our industry and highly needed nowadays. Cargill's 3S program is a good model to pursue it."

Jose Palacios
Global Procurement Manager of Soybean Oil for Nestlé

Read more about 3S on **page 112**.

Our commitments

Transforming our soy supply chain to be **deforestation-free** while protecting native vegetation beyond forests

Promoting **responsible production**, which benefits farmers and surrounding communities

Respecting and upholding the **rights of workers, indigenous peoples, and communities**

Upholding **high standards of transparency** through reporting of key metrics, progress, and grievances

Due diligence and traceability

Ensuring due diligence

Having mapped our direct soy suppliers across South America, we use an industry-leading combination of processes, data, technology, and commercial knowledge to verify the provenance of the soy delivered to us. This combination looks somewhat different in each country depending on the public data, government protocols, and other resources available there.

And yet, across all countries, the approach is similar. New suppliers must be enrolled in our system with documentation of their farm polygons before we can enter into a commercial agreement with them. In Brazil, part of this enrollment includes an assessment at the property level that overlays potential risks like conservation units, indigenous reserves, or other restrictions. Every year, returning suppliers go through the same compliance check again.

This system is one of continuous improvement — each year we have made considerable advances in the technology, data, and processes involved. It empowers our farmer partners to show that they are doing the right thing. It enables us to act when we find a problem and offers a simple channel for third parties to do the same. And it gives confidence to our customers that the soy they buy from us was produced responsibly.

100,000+

Number of polygons we mapped in South America for soy production

1

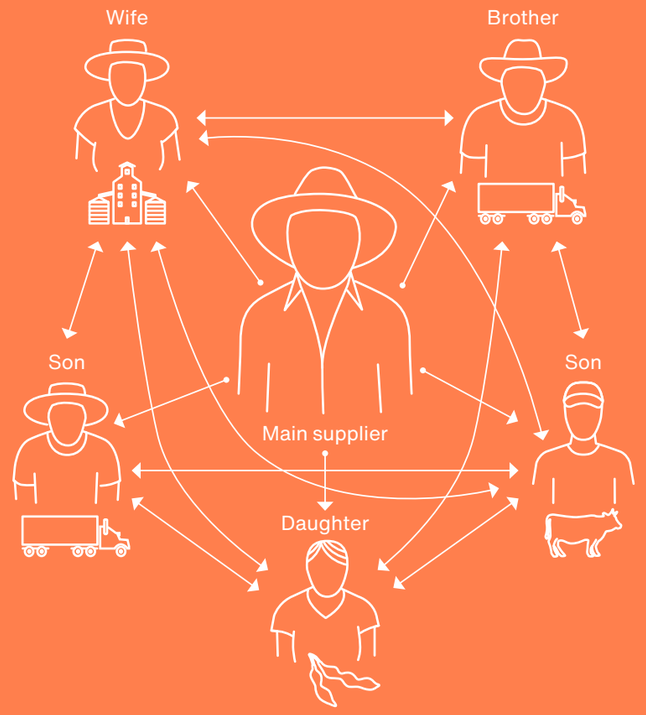
Mapping

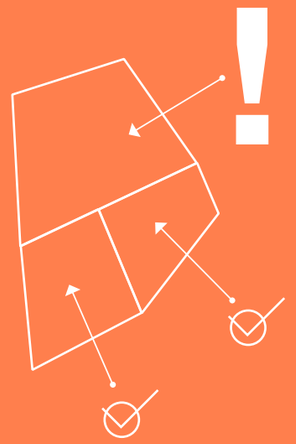
Mapping farm polygons is the first step in ensuring due diligence, but we do not stop at identifying where a farm begins and ends. A farmer may have many commercial relationships with family members and affiliated business entities, making it hard to determine who grew the soy being sold to us based solely on the public data.

That's why in Brazil, our commercial teams outline these commercial relationships to the best of our knowledge in our databases, supplementing public data while being sure to adhere to applicable privacy laws. When we block a farm in Brazil as part of our automated system (see **page 105**), this mapping is the basis for further analysis to make sure that soy from a blocked farm is not being rerouted to us through business partners.

In other countries, we lean on established protocols to avoid soy from blocked farms being rerouted to us in this way. For instance, Argentina requires documents for tax obligations and commercial transparency as soy is transported, which provides clarity on where that soy originated. This includes where it has been stored and when it has been handed from one operator to another. In Bolivia, Paraguay, and Uruguay where this protocol doesn't exist on a national level, we are working on developing sectoral definitions.

An example of how one Cargill supplier in Brazil may have many family members with their own farming operations and affiliated businesses that can produce or sell soy





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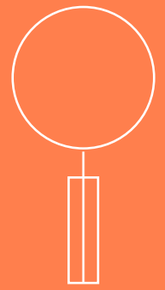
Validating

When direct suppliers deliver soy to us, they indicate the farm polygons where soy is planted. Whether they are new or returning suppliers, they share geospatial information and documentation to be enrolled in our commercial system. In addition to overlaying potential risks against these polygons, we also cross-reference the delivered volumes with average soy yields in the area. This allows us to make sure that the volumes a supplier is attributing to a polygon are reasonable based on the area's typical production and if the numbers don't match, we follow up with the farmer to confirm that all polygons are accounted for. This process is deployed in Brazil and we are preparing to deploy it in Argentina, Bolivia, Paraguay, and Uruguay.

3

Blocking

In Brazil, our commercial systems automatically block any farm that appears on any government list for violation of the law or sectoral lists for failure to adhere to agreed environmental commitments. Thanks to our deep understanding of commercial relationships in Brazil, we can also block affiliated farms to avoid non-compliant soy being rerouted to us through these other channels (see the next page). In other countries that do not have such lists, we take action to block on a case-by-case basis as we find issues.



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Responding

When third parties want to address an issue in our supply chain that is not in compliance with our policies — including when they believe non-compliant soy may have found its way into our supply chain — they raise a grievance. We take these grievances seriously, investigate immediately, and take further action as warranted (see **page 106**).

How and why we block farms

In Brazil, our detailed mapping of commercial relationships in our supply chain (see **page 103**) combines with our processes, data, and technology to provide a strong system of controls for the integrity of our direct soy supply chain.

Every day, our automated system consults lists managed by various government agencies and sectoral organizations. When a farming operation appears on one of these lists, it is immediately blocked so it is not eligible to sell soy to us.

We also block other farms registered to the same person or entity in the state, as well as those with whom they have a close commercial relationship. These affiliated farms cannot be unblocked until we conduct a thorough analysis to help ensure that soy from the violating farm is not being rerouted and sold to us through the affiliated operation.

Each new crop season, we re-evaluate these commercial relationships and check to ensure that affiliated farms still are not rerouting soy from blocked commercial partners.

In other countries in South America that do not have public lists like this, we take action to block farms on a case-by-case basis as we discover issues or they are brought to our attention through our grievance process (see the next page).

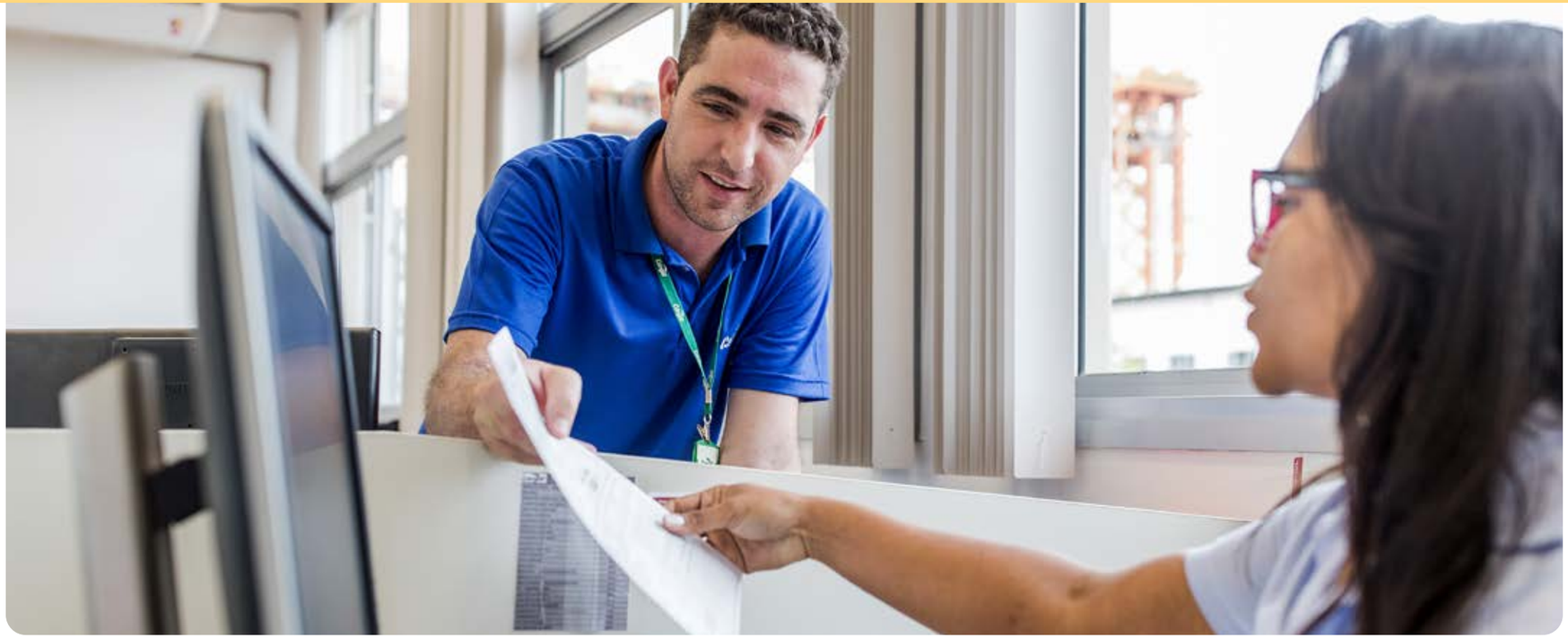
Blocked farms in Brazil by list for calendar year 2023

		Number of farms we blocked	*Additional operations we analyzed to avoid rerouting of soy from restricted areas*
Federal lists	**IBAMA** Covering all of Brazil, this list by the country's environmental agency includes embargoes for all types of illegal environmental activity such as illegal deforestation, improper licenses, and farm management issues	464	343
	ICMBIO Covering all protected conservation areas within Brazil, this list includes embargoes for deforestation violations inside those areas	16	24
	Slave Labor List Including all of Brazil, this list marks suppliers accused of making use of workers under conditions analogous to slavery according to Brazilian laws	35	15
State lists	**Embargoes Mato Grosso** A list managed by the state's environmental agency recording all environmental violations	127	521
	List of Illegal Deforestation (LDI) from Pará A list run by the state's environmental agency covering illegal deforestation	38	2
Sectoral lists	**Green Grain Protocol** This is part of a commitment signed in 2014 that establishes criteria for responsibly purchasing grain from farms operating in Pará	93	19
	Amazon Soy Moratorium Managed by the Soy Working Group, this list monitors all types of conversion of native vegetation to soy production in Brazil's Amazon biome	126	54
TOTAL		**899**	**978**

Addressing grievances

Our system of controls for due diligence is thorough, but we also welcome concerns from third parties when they feel something is not right. We take immediate action to investigate when we receive reports of a problem related to our supply chain. Our **grievance process** lays out a transparent mechanism for us to review, address, and monitor any concerns as they are raised to us in relation to compliance with our soy policy. This includes documenting who raised the grievance, the farms or organizations being investigated, the status of our investigation, and our findings.

We take grievances seriously. We do not tolerate retaliation against anyone who, in good faith, raises a concern or participates in an investigation or whistleblowing. We prohibit harassment, intimidation, and the use of violence by any employee, supplier, or third-party contractor throughout engagement in our grievance process. Additionally, all suppliers are subject to Cargill's **Supplier Code of Conduct** and our **Policy on Forests**.



326

soy-related grievances were reported in our system during calendar year 2023

72 grievances were related to our supply chain or operations

254 grievances were unrelated to our supply chain or operations

Programs and partnerships

Two frameworks, one commitment

We remain deeply committed to building a more sustainable soy supply chain and halting deforestation connected to the soy we source as part of **our larger approach to land use**. To do this, we are accelerating progress against our own company target and working with industry peers, farmers, and other stakeholders to drive systemic transformation. This dual approach will help ensure that soy from South America can continue to support global food security and local livelihoods while also protecting the planet.

> "Getting deforestation and conversion of natural ecosystems out of soft commodity supply chains is one of the most significant things a business can do for people, nature, and climate. Cargill's new commitment aligns with a vision that it's possible to produce food while protecting vital ecosystems."
>
> **Craig Hanson**
> Managing Director of Programs
> WRI

An accelerated timetable

On our pathway to ending deforestation and conversion across our South American soy supply chain by 2030, **we announced in November 2023** an accelerated commitment that will help further protect the region's critical ecosystems. By the end of 2025, all the soy we originate in-country from both direct and indirect suppliers in Argentina, Brazil, and Uruguay will be DCF. This will include both legal and illegal conversion, validated by our leading traceability system.

It's a testament to our resolve for making real, tangible progress, and it's been made possible by the hard work of our local teams over the last several years. They have incorporated global Cargill expertise to build an operational model that will enable us to continue connecting soy farmers to world markets.

We are also leveraging the World Resources Institute's (WRI) geospatial expertise, and other monitoring, reporting, and verification capabilities will help us deliver on our 2025 commitment.

A shared objective

Because no one company can drive systemic change alone, we have joined with several other leading processing and trading companies on the **Agriculture Sector Roadmap to 1.5°C**. It aims to accelerate existing action on eliminating deforestation linked to soy and other commodities and align with global climate goals in a way that contributes to food security, economic development, and farmer livelihoods. As a sector, it commits us and other signatories to ensuring that all soy we source from the Amazon, Cerrado, and Chaco biomes is deforestation-free by 2025.

Since the roadmap's launch at COP27, we have been working with other signatories to implement the roadmap collectively and individually. The signatories have established a series of working groups to coordinate our independent efforts and we have actively engaged and advanced several initiatives that allow us to drive impact at the scale needed to achieve long-term, sustainable change.

Programs for regenerative agriculture

As our climate changes, it's clear that our food system needs to change along with it — starting at the farm. Regenerative agriculture practices have the power to sequester greenhouse gas (GHG) emissions, improve water quality and use, and build up healthy soil for the next generation. In South America, we are working to make these practices commonplace by supporting farmers in adopting them.

A one-stop shop in Brazil

To showcase to rural farmers in Brazil that sustainability can empower their operations financially, we launched ReSolu, a new offering that serves as a one-stop shop for them to commercialize regenerative agriculture.

ReSolu is focused on helping farmers adopt sustainable practices in established agricultural areas to improve soil health, as well as helping transition degraded areas to agriculture through agronomic management and regenerative approaches. We built ReSolu using our local expertise, informed by lessons learned from other geographies where we have established ourselves as a market leader in regenerative agriculture with offerings like the award-winning Cargill RegenConnect®.

In addition to giving farmers access to new potential revenue streams and strengthening the resilience of their land, ReSolu will help combat climate change and provide other environmental benefits. We are currently enrolling farmers for this upcoming crop season.

ReSolu's all-in-one approach to regenerative agriculture

Agronomic technical assistance

Helping farmers implement regenerative agricultural practices in the field through regular consultation with our agronomic team

Portfolio of crop inputs

Providing fertilizers, cover crop seeds, and other inputs, often with better financing conditions and incentives due to their participation in the program

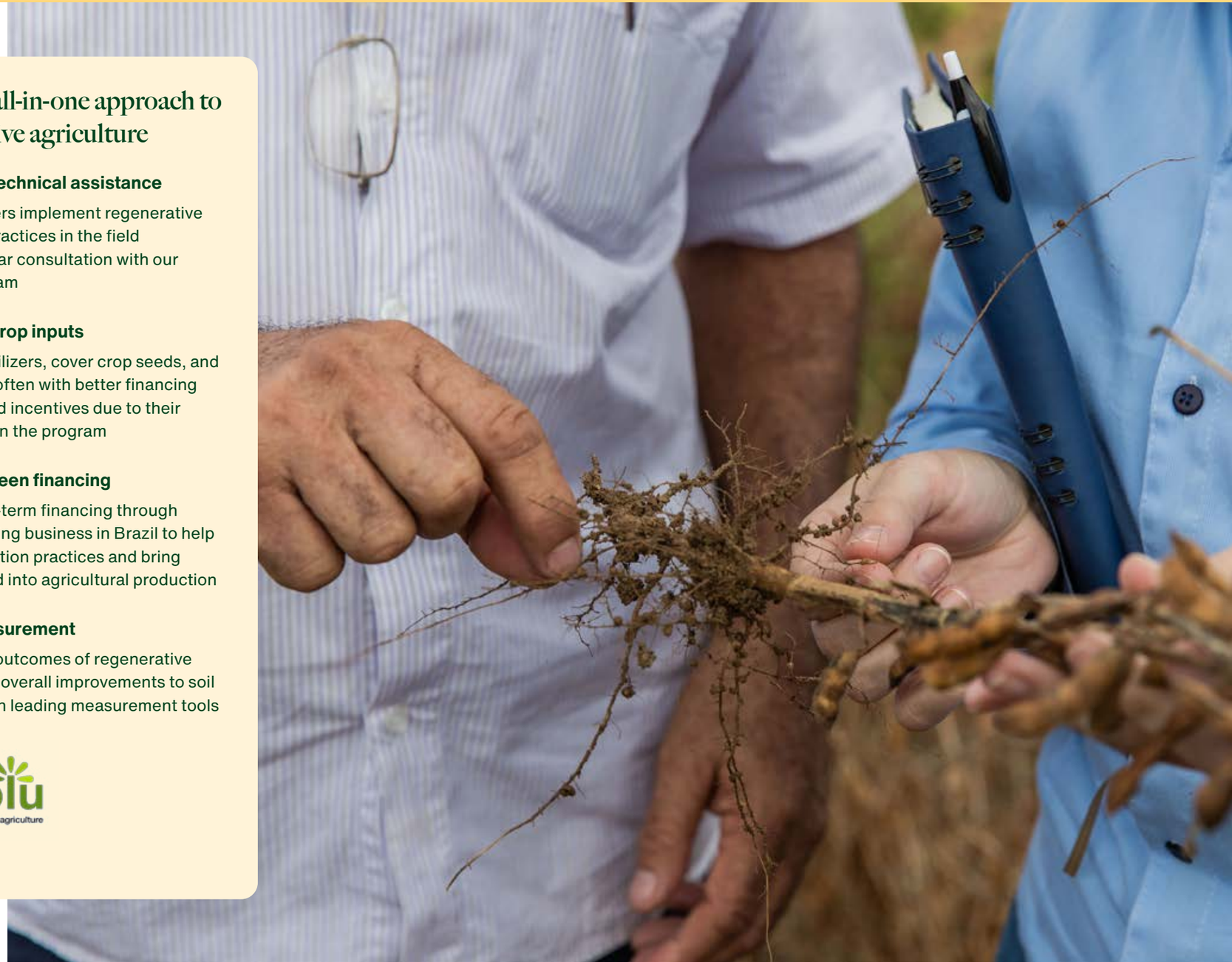
Access to green financing

Offering long-term financing through Cargill's banking business in Brazil to help farmers transition practices and bring degraded land into agricultural production

Carbon measurement

Verifying the outcomes of regenerative practices and overall improvements to soil health through leading measurement tools

ReSolu
Solutions for regenerative agriculture



Programs for regenerative agriculture

Additional work to help soy farmers implement regenerative agriculture in South America includes:

- **Identifying risks:** In Brazil's Maranhão state, we conducted a pilot with agtech firm LandPrint to deploy a digital environmental rating system that would help farmers quantify how their operations impact the surrounding landscape. At scale, such a system could help farmers understand material risks, maintain access to markets and financing, and ultimately incentivize more sustainable agricultural practices. In addition to trialing the system across 5,000 hectares with local farmers, our work together also included farmer training workshops on transitioning to regenerative agricultural practices in their operations. With LandPrint, we also explored how the rating system could help support outcome-based financial mechanisms to incentivize such transitions for farmers.

> "The Regenera Cerrado program is of great importance to reassure other producers to also follow the path of producing healthier food and taking even more care of the workforce and our environment."
>
> **Marion Kompier**
> Soy and corn farmer
> in Rio Verde, Goias

- **Developing a low-carbon soy protocol:** We continued to partner with Embrapa, Brazil's government agency for agricultural research, as well as other companies in the sector to develop **a protocol for low-carbon soybeans**. This protocol will identify the attributes of soy production that account for lower carbon compared to conventional practices, with the goal of establishing a certification label for the market. In the first year of soil sampling to start testing the protocol in the field, soil samples were gathered from 67 farms. We look forward to generating results in the next year that will help differentiate low-carbon soy.
- **Quantifying benefits:** We also continued to support **Regenera Cerrado**, a broad environmental study into the benefits of adopting regenerative agricultural practices in the Cerrado biome. In partnership with Embrapa, Instituto Forum do Futuro, Instituto BioSistêmico, and more, our commitment of $1 million to the project has now covered one full soy crop and corn crop season. Research partners include Goiano Federal Institute, Federal University of Lavras, Federal Rural University of Rio de Janeiro, Federal University of Viçosa, University of Brasília, and State University of Campinas. Researchers are working on 12 farms across 1,600 hectares in Goias state, with preliminary results pointing to better soil health, easier pest management, and stronger prevalence of pollinators — as well as lower production costs and higher profitability for farmers.

Our regenerative agriculture programs in South America include more than

74,000 hectares

Land Innovation Fund

The **Land Innovation Fund for Sustainable Livelihoods** was created by Cargill to foster innovative, farm-focused solutions for a sustainable, climate-smart, DCF soy supply chain in South America's Amazon, Cerrado, and Chaco biomes.

Having completed **three years of activity**, the Land Innovation Fund has catalyzed learning about what it will take to drive transformation across the soy sector. Across dozens of projects — some completed, many still underway — the Land Innovation Fund and its partners have developed innovative solutions ranging from new technologies to public policy design and beyond. These have helped drive conversation and collaboration at the local, national, and regional levels.

Projects have also made a significant impact at the farm level, including 2.5 million hectares across all three biomes. Today, 2.2 million hectares are being monitored for environmental compliance and deforestation-free production by solutions developed with the Land Innovation Fund's support. And 41,000 hectares of forests and native vegetation in threatened ecosystems have avoided conversion as farmers have committed to deforestation-free production while participating in its projects.

Photo credit: ILPF Network Association

A snapshot of the Land Innovation Fund's first three years:

2.5 million
hectares impacted

44
projects funded

54
partner institutions engaged

70
innovations supported

2,100
farms participating

41,000
hectares of deforestation avoided based on farmer participation in projects

Land Innovation Fund

These three projects offer a diverse sampling of the different kinds of collaboration, creativity, and solutions that the Land Innovation Fund supports.

Exploring regenerative practices in Bolivia

Currently ongoing in eastern Bolivia, the PRIAS project promotes regenerative, low-carbon agricultural practices on soy and cattle farms in a transition zone between the Chiquitano, Chaco, and Amazon ecoregions. The aim is to increase crop yields and curb the clearing of forests and native vegetation through regenerative practices that are novel in the country, focusing on soil restoration with a conservation approach. So far, 43 farms are participating in the project, representing more than 120,000 hectares of production. Pilot plots across 400 hectares will provide results that enable farmers to scale up to larger areas, making use of a cutting-edge soil and carbon analysis laboratory that employs technology originally developed by NASA for samples on Mars.

Partners: Foundation for the Conservation of the Chiquitano Forest (FCBC), Regional Consortium for Experimental Agriculture (CREA) in Bolivia, Conservation Strategy Fund (CSF)

Photo credit: Foundation for the Conservation of the Chiquitano Forest (FCBC)

An innovation ecosystem for sustainability in the Cerrado

From 2021 to 2023, the Sustainable Soy in the Cerrado program has supported 28 startups to help protect the Cerrado biome. This groundbreaking initiative has enabled 22 startups to accelerate 18 technological solutions, leveraging expertise from across the sector and offering a unique model to drive innovations for the farm. In particular, the Startup Finance Facility financial mechanism has provided the funding for cultivating a broad range of solutions across environmental compliance, traceability, carbon markets, regenerative practices and soil health, and biodiversity monitoring, among others.

Partners: PwC AgTech Innovation, CPQD, Embrapa, Embrapii

Monitoring carbon and biodiversity in Argentina and Paraguay

This project seeks to better understand the symbiotic relationship between farms' productive areas and conserved areas, as well as how this interaction affects biodiversity and carbon stocks in the soil. On 34 farms covering 154,000 hectares in both Argentina and Paraguay, farmers are receiving tailored recommendations to improve yields and ecosystem services at the same time. This work will pave the way for these farmers to enter carbon markets while also providing data for other farmers' decision-making on a landscape scale.

Partners: ProYungas Foundation, Argentine No-Till Farmers Association (AAPRESID), Moisés Bertoni Foundation

Helping farmers boost sustainable production

Farmers are the key to driving transformation in the soy sector, and solutions need to work for them. Cargill's 3S program, previously known as Triple S, connects farmers to our downstream soy customers that value sustainability. Farmers enrolled in the program can earn a premium in some regions for committing to certain criteria, and they receive technical support from our partners to help them along the way. This is one reason why 3S has long served as a model for continuous improvement in more sustainable soy production.

As part of our new three-year partnership with Solidaridad, we will ramp up work already underway with soy farmers in South America, enhancing conservation, responsible land use, and data collection. The organization has been working with soy growers in Paraguay since 2019 to help them meet the standards of 3S.

4.25 million hectares

Amount of land we are monitoring across South America as part of certification and verification programs such as 3S

For instance, farms enrolled in 3S must have a clear land title, comply with local laws, handle agrochemicals responsibly, and avoid child labor, and the soy they produce must be DCF. Then, farmers implement recommendations for practices related to water quality, regenerative agriculture, and employee training and safety. Solidaridad works with farmers to promote these practices, assess their adoption on the farm, develop individualized action plans, and monitor improvement.

"AB Agri are proud to work closely with our suppliers to establish supply chains that incentivize growers to eliminate deforestation. I have had the opportunity to visit Brazilian soy farmers meeting the requirements of the Cargill 3S program, which includes not deforesting since 2008. Cargill 3S is an approved responsible sourcing scheme for AB Agri, and I believe it makes a real difference at the ground level."

Hugh Burton
Senior Raw Material Manager
AB Agri

Carl Bielke is a partner at TRACTUR SACI., a soy farm in Paraguay **that has worked with Solidaridad to get enrolled in 3S**. As he puts it: "The program really matched our philosophy: no polluting, no destroying, and trying to leave the place in a better shape than when we arrived."

Cargill also works with additional partners in other South American countries to continue strengthening the 3S program overall. This year in Brazil, we expanded 3S to Bahia with technical partner Produzindo Certo, while continuing to work with Instituto BioSistêmico in other Brazilian states as we have in the past. And we are also in the process of relaunching 3S origination in Argentina.

3S Responsible Production Verified

Other engagement across the sector

Getting ready for EUDR

The EUDR prohibits placing or making available relevant products linked to deforestation on the EU market. Cargill shares the European Union's objective of combating deforestation and forest degradation linked to the production of agriculture commodities and products. The EUDR reflects many of Cargill's commitments to increasing transparency and traceability in our supply chains. When the regulation takes effect, all referenced supply chains must implement measures to ensure they are deforestation-free.

Engaging with indirect suppliers

To ensure due diligence on human rights, we engaged with our indirect suppliers in Bolivia and Brazil to set clear expectations around our own policies and understand the policies and processes they have in place. In Bolivia, the engaged indirect suppliers represent the major crushing companies in the soy sector and make up almost 100% of the volumes we originate from the country.

Supporting a smart mix of solutions

As members of the Soft Commodities Forum (SCF), we continue to support implementation of the Farmer First Clusters. This initiative employs a tailored, smart mix of farmer-focused solutions in different landscapes of Brazil's Cerrado biome to address deforestation and conversion. With design completed in 2023, soy farmers have begun enrolling in Farmer First Clusters, **with nearly 200,000 hectares signed up** by early 2024.