

Commitments and Actions of Prominent Cattle and Soy Producers

An update on the state of deforestation- and
conversion-free production among prominent cattle
and soy producers

Updated: October 2024





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Overview

An increase in more sustainable production could lead to a projected increase in yield per hectare of more than

18%

for cattle and

14%

for soy



Cattle and soy supply chains are associated with deforestation and conversion of natural ecosystems. Between 2021 and 2022 global beef and soy production played a significant role in the alarming 15% surge in deforestation in the Brazilian Amazon¹. Whilst much attention has been focused on stopping deforestation, agricultural expansion has been displaced into non-forest ecosystems such as the Cerrado and Pampas. In 2019–2020, the Cerrado experienced conversions of 619,000 ha, whilst in the Pampas 424,000 ha were cleared. These events point to a need to manage land use change comprehensively².

Global demand for animal products and local demand for beef is driving most deforestation and conversion risk in South America³. Soy is used as a key component in many livestock feeds, accounting for around 75% of annual soy production⁴. Through feeds, soy becomes embedded in animal products sold around the world, from raw cuts of meat to ingredients found in processed food products and leather produced for the textiles industry. Global demand for soy has driven expansion of soy farming in Brazil into land previously converted for cattle pasture, causing ranchers to convert more land for grazing⁵.

The demand is largely being met by a few influential traders that wield significant influence over the supply chain and are a critical juncture for sector-wide transformation. As of 2020, JBS, Marfrig and Minerva collectively claimed around a 70% share of the global beef export market and account for around 50% of Brazil's annual production⁶. In the soy sector, key players such as Amaggi, Archer Daniels Midland (ADM), Bunge, Cargill, COFCO and Louis Dreyfus claimed over 57% of soy exports⁷. At COP 28, ADM, Amaggi, Bunge, Cargill, COFCO, JBS, Marfrig and Louis Dreyfus, among others, issued a joint statement on the collective Agriculture Sector Roadmap⁸ to 1.5°C delivered at COP 27 in Glasgow⁹.

The road to sustainable cattle and soy production presents opportunities. In both the cattle and soy sectors, producers that do not depend on deforestation for expansion are likely to be perceived to have heightened market access and better resilience to climate

1 Beuchle, R., Bourgoignie, C., Crepin, L., Achard, F., Migliavacca, M. and Vancutsem, C., Deforestation and forest degradation in the Amazon - Update for year 2022 and link to soy trade, Publications Office of the European Union, Luxembourg, 2023, doi:10.2760/211763, JRC134995.

2 Reis, T., & Prada Moro, Y. (2022). Connecting exports of Brazilian soy to deforestation. Trase. <https://doi.org/10.48650/S8VZ-1033>.

3 WWF (n.d). Soy. https://www.panda.org/discover/our_focus/food_practice/sustainable_production/soy/.

4 WWF & BCG (2021). Deforestation- and conversion-free supply chains: A guide for action. https://www.flac.awsassets.panda.org/downloads/wwf_bcg_deforestation_and_conversion_free_supply_chains_a_guide_for_action_3.pdf

5 Ermgassen et al. (2020). Using supply chain data to monitor zero deforestation commitments: An assessment of progress in the Brazilian soy sector. Environ. Res. Lett. 15, 035003 (2019).

6 Ermgassen et al. (2020). The origin, supply chain, and deforestation risk of Brazil's beef exports. <https://www.pnas.org/content/117/50/31770>.

7 WWF (2021). Taking deforestation- and conversion-free supply chains. <https://www.worldwildlife.org/pages/takingdeforestation-and-conversion-out-of-supply-chains>.

8 Tropical Forest Alliance. Growing Global Agriculture to Its Full Potential, Sustainably and Responsibly. <https://www.tropicalforestalliance.org/assets/Soy-sector-collective-progress.pdf>.

9 UN Climate Change Conference UK (2021). Agricultural Commodity Companies Corporate Statement of Purpose. <https://web.archive.nationalarchives.gov.uk/ukgwa/20230106145036/https://ukcop26.org/agricultural-commodity-companies-corporate-statement-of-purpose/>.



transition risks, thus increasing access to affordable capital for yield improvements. In a modest climate transition scenario, increased investment in more efficient and sustainable practices would drive average yield per hectare up by 18%¹⁰ for the cattle sector and 14%¹¹ for the soy sector between 2020 and 2050, with even greater projected yield increases in more ambitious scenarios.

Despite renewed commitments by big traders, and economic opportunities associated with more sustainable production, business as usual prevails and progress towards achieving deforestation- and conversion-free (DCF) production and consumption and in-turn lowering related climate emissions has

been slow. Concerns about insufficient ambition and progress¹² that is reflected in the commitments and actions disclosed publicly through CDP.

To transition to a 1.5°C and nature positive pathway and to align financial flows to climate smart and nature positive investment, cattle and soy traders need to take decisive actions and set ambitious targets to stop deforestation, natural ecosystem conversion and human rights issues. This involves working with supply chains to align with global environmental targets, ensuring compliance with incoming regulation, de-risking business and publicly demonstrating improvements in DCF performance and other associated indicators.

CDP offers stakeholders key indicators for monitoring the transition toward DCF supply chains. Indicators have been used to benchmark and assess eight of the ten highest impact cattle and soy companies disclosing through CDP¹³.



Commitments

Time-bound, public commitments against deforestation and conversion of natural ecosystems covering all production/consumption and relevant operations, with social and remediation elements.



Commitment compliance

Implementation of a system to monitor and verify compliance with no-conversion/ deforestation commitments, encompassing all relevant direct operations or supply chains.



Certification

Commodity certifications that meet no-deforestation criteria.



Traceability

Product traceability to production areas assessed as DCF.

¹⁰ Orbitas (2024), Brazil's Cattle Sector Amidst Climate Transitions. <https://orbitas-15d5b.kxcdn.com/wp-content/uploads/2024/04/Orbitas-Brazils-Cattle-Sector-Amidst-Climate-Transitions.pdf>.

¹¹ Orbitas (2024). Brazil's Soy Sector Amidst Climate Transitions. https://orbitas-15d5b.kxcdn.com/wp-content/uploads/2024/04/Orbitas_Brazils-Soy-Sector-Amidst-Climate-Transitions.pdf

¹² Accountability Framework initiative (2023). Collective statement by soy traders clarifies targets but falls short of 1.5°C ambitions. <https://accountability-framework.org/news-events/news/collective-statement-by-soy-traders-clarifies-targets-but-falls-short-of-15c-ambitions/>

¹³ Louis Dreyfus has been requested to disclose forest-related impacts since 2013, and COFCO International since 2020, yet neither has responded.

Tracking progress

CDP disclosure allows companies to report on their management of deforestation, land conversion, and restoration activities for the previous year. The data and analysis in this fact sheet are based on responses to CDP's information requests from 2020 to 2023.

This fact sheet provides an update on commitments and actions taken by key commodity traders over four years to eradicate deforestation, conversion and human rights abuses from production and sourcing. Producers are assessed according to their performance in relation to current best practice – this is defined as the snapshot. Progress over time or transition is evaluated using static definitions to show whether companies are making the necessary change and if not, used to target engagement.

- ▼ **Snapshot:** An assessment of an organization's most recent disclosure (2023) using the current forest-related KPIs definitions¹⁴. This is shown in the final column of the detailed KPI progress and snapshot table labelled 'snapshot'.
- ▼ **Progress:** An assessment of the organization's disclosures over time, using the indicator definitions used in the baseline assessment (2021 CDP forest-related KPIs definitions¹⁵). A summary is shown in the KPI progress charts and detailed KPI progress and snapshot table labelled 'progress'.

Box 1: CDP's 15 forest-related key performance indicators¹⁶

CDP developed 15 forest KPIs, rooted in the 12 Core Principles of the Accountability Framework, to assess a company's forest-related performance. These KPIs offer detailed insights into a company's disclosure, focusing on key aspects crucial for eliminating deforestation from supply chains. The KPIs undergo an annual review to stay at pace with ever-evolving best practice in supply chain management.

¹⁴ CDP (2023). Understanding CDP's 15 forest-related key performance indicators. https://cdn.cdp.net/cdp-production/comfy/cms/files/files/000/007/008/original/KPI_Forest_FactSheet.pdf.

¹⁵ CDP (2022). Changing Fortunes. The state of deforestation and conversion-free production among prominent cattle and soy producers. https://cdn.cdp.net/cdp-production/cms/reports/documents/000/006/684/original/Changing_Fortunes.pdf

¹⁶ CDP (2023). Understanding CDP's 15 forest-related key performance indicators. https://cdn.cdp.net/cdp-production/comfy/cms/files/files/000/007/008/original/KPI_Forest_FactSheet.pdf

Stakeholder recommendations



1

For purchasing companies and financial institutions

Demand comprehensive disclosure

Transparency is the accepted norm and so cattle and soy companies are expected to disclose on all commodities that they produce and/or source and their associated impacts, including embedded soy or soy used in feedstuffs without any exclusions. This comprehensive disclosure ensures impact and action is approached holistically.



2

Engage suppliers and investees on poorly performing KPIs

Engage with cattle and soy companies regarding KPIs where they are performing poorly. This starts with public policies, commitments and targets that go beyond no-deforestation to cover all natural ecosystems. Clearly communicate requirements for improvement and encourage the development of time-bound action plans to achieve DCF supply chains through supply chain and landscape-level actions.



1

Trader recommendations

Strengthen and publicly communicate intentions for DCF supply chains

Despite most companies having public policies or commitments to eliminate deforestation and conversion, in most cases they fall short of best practice. Policies, commitments and targets should ideally cover full geographic and commodity sourcing with definitions that prohibit conversion of all natural ecosystems – including managed natural ecosystems, such as those used for grazing on native grasslands or savannahs¹⁷. The policies should further be strengthened to include social, restoration and remediation elements, alongside time-bound action plans and targets aligned with the Accountability Framework to increase their effectiveness and reduce risk. However, despite the critical importance of this issue, Louis Dreyfus and COFCO, signatories of the soy sector roadmap, have not yet begun publicly reporting their progress on DCF supply chains through CDP. To ensure accountability and drive meaningful change in the soy sector, it is essential that soy traders strengthen and publicly communicate their commitments to DCF supply chains.

¹⁷ Accountability Framework (2023). Collective statement by soy traders clarifies targets but falls short of 1.5°C ambitions. <https://accountability-framework.org/news-events/news/collective-statement-by-soy-traders-clarifies-targets-but-falls-short-of-15c-ambitions/>



2

Report all impacts comprehensively and accurately

Regardless of the level of progress made, report transparently on all commodities produced, sourced or used in the company's supply chain, including the use of soy for feed which may also be embedded in the traders' supply chain. Disclosure should apply to all segments of the company's business across geography for which agricultural or forestry commodities may pose environmental or social risks without exclusions. Any exclusions from commitments should be clearly specified and justified based on credible risk assessment. This comprehensive approach is essential to demonstrate to stakeholders that dependencies, impacts and risks are being managed and opportunities taken.



3

Improve performance against essential KPIs

- ▼ Enhance visibility into commodity volumes sourced from direct and indirect suppliers, including identifying the geographic origin of commodities back to a point in the supply chain where deforestation- and conversion-free status can be determined.
- ▼ Implement monitoring systems to confirm that production units are free from conversion with mechanisms to respond to new conversions if detected.
- ▼ Utilize robust third-party verification to ensure the credibility of methodology, data, and claims related to zero-deforestation and conversion.



4

Strengthen supply chain engagement

Clearly communicate public no-deforestation and conversion policies and commitments, along with time-bound milestones and targets, to suppliers. Support direct suppliers in establishing their own no-deforestation and conversion commitments and developing public time-bound action plans with clear milestones and report suppliers' compliance with your policies.



5

Participate in landscape/jurisdictional approaches in the production landscape



Companies engaged in cattle and soy production need to enhance their landscape-level initiatives to meet their sustainability goals both immediately and in the future. Landscape and jurisdictional approaches can serve as platforms for advanced piloting or large-scale deployment of traceability and forest monitoring systems. These initiatives help lower costs and maximize impact, especially as regulations like the EU Deforestation Regulation come into effect.

Notes:

Achievement	Full	Mid	Basic	None	N/A
Explanation	Meets the full KPI criteria	Meets basic and some of the full KPI criteria	Meets basic KPI criteria	Have not met the KPI at any level	Not applicable (selected minimum tier)

Detailed corporate responses can be accessed at www.cdp.net.

Table 1. KPI snapshot by category and company (2023)
 (Full KPI = ✓ Partial KPI = / Basic KPI = | None= X N/A= -)

		 Soy						 Cattle			
Category	KPIs	Amaggi	Archer Daniels Midland	BRF	Bunge	Cargill	KPIs attained	JBS	Marfrig	Minerva	KPIs attained
Governance	Board oversight		✓		✓	✓	60%				0%
	Policy	✓	/	/	/	/	20%		✓	✓	67%
	Commitment	✓	/				20%				0%
Strategy	Long-term planning	✓	✓	✓	✓	✓	100%	✓	✓	✓	100%
Risk management	Risk assessment						0%	✓			33%
Measuring & targets	Targets	✓	✓				40%		✓	✓	67%
	Certification			X	X		0%	X	X		0%
	Traceability		✓			✓	40%		✓		33%
	Commitment compliance	✓	/	/	/	/	20%	/	✓	/	33%
	Legal compliance	✓	✓	✓	✓	✓	100%	✓	✓	✓	100%
Value chain engagement	SCE - Smallholders	✓	✓		✓	✓	80%	✓	✓	✓	100%
	SCE - Direct suppliers			X			0%				0%
	SCE - Beyond first-tier	✓	X	-	✓	✓	60%	-	-	X	0%
	Landscape approaches	/	/	X	/	/	0%	/	/	✓	33%
Beyond no-deforestation	Restoration	✓	✓	X	✓	✓	80%	✓	✓	✓	100%
Total	Total KPIs fully achieved	9	7	2	6	7		5	8	7	

Box 2. Landscape/jurisdictional approaches in cattle and soy sector

Recent studies between Tropical Forest Alliance, Proforest and CDP confirm that companies sourcing soy and cattle commodities are taking landscape-scale action mainly because of:

- ▼ The limitations in addressing traceability alone due to complex supply chains;
- ▼ The opportunities to prevent deforestation and conversion;
- ▼ The wider co-benefits in meeting multiple nature-climate-social commitments;
- ▼ The improvement of relationships with direct and indirect suppliers to comply with nature-climate-social policies;
- ▼ The inclusion of smallholders;
- ▼ The collaborative action & networking with multiple stakeholders;
- ▼ The recognition of landscape approaches as high-quality NbS; and
- ▼ The alignment with science-based company target setting at SBTN-Land.

Despite the substantive cost-benefit reasons for companies to act/invest in soy and cattle landscapes or jurisdictions, credible engagements from the sector are still minimal. In 2022, five downstream and midstream companies took credible landscape-scale action across seven landscape and jurisdictional initiatives in beef producing areas. All of them in the Amazon or Cerrado in Brazil. In the case of soy, 15 downstream, midstream and integrated companies took landscape-scale action across six landscape and jurisdictional initiatives in soy producing areas. Most of the initiatives identified in the study are in Brazil, with just one of them located in Argentina.

An overall increase of company action at scale, with multiple stakeholder collaboration in manageable cross-thematic approaches is needed to reach global climate and nature goals. More information:

- ▼ [Companies Collaborating for Sustainable Soy Landscapes: Progress and Transition Pathways - JA Hub \(jaresourcehub.org\)](https://jaresourcehub.org/)
- ▼ [Starting the Journey: Companies Collaborate for Beef Sustainability at Scale - JA Hub \(jaresourcehub.org\)](https://jaresourcehub.org/)



Amaggi



Amaggi

Soy performance 2020–2023



Reported production and sourcing footprint in 2023

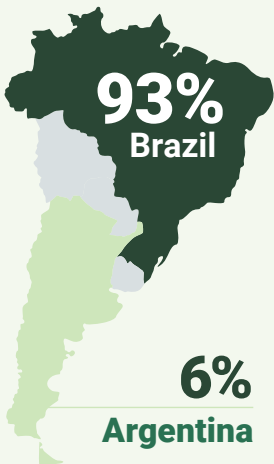
Production volume (metric tons)

605,696

Consumption volume (metric tons)

9,549,136

Production & sourcing areas



Legend

- Full (✓) ■ None (X)
- Mid (/) ■ N/A (-)
- Basic (I)

* **Progress:** An assessment of the organizations' disclosures over time, using the indicator definitions used in the baseline assessment (2021 CDP forest-related KPIs definitions).

** **Snapshot:** An assessment of the company's most recent disclosure (2023) using the current forest-related KPIs definitions.

KPI progress



Detailed KPI progress and snapshot

Category	KPIs	Progress*				Snapshot**
		2020	2021	2022	2023	2023
Governance	Board oversight	✓	✓	✓	✓	I
	Policy	✓	✓	✓	✓	✓
	Commitment	/	✓	✓	✓	✓
Strategy	Long-term planning	✓	✓	✓	✓	✓
Risk management	Risk assessment	✓	✓	I	I	I
Measuring & targets	Targets	✓	I	I	✓	✓
	Certification	I	I	I	I	I
	Traceability	I	I	I	I	I
	Commitment compliance	✓	✓	✓	✓	✓
	Legal compliance	✓	✓	✓	✓	✓
Value chain engagement	SCE - Smallholders	✓	✓	✓	✓	✓
	SCE - Direct suppliers	✓	✓	✓	✓	I
	SCE - Beyond first-tier	-	✓	✓	✓	✓
	Landscape approaches	✓	✓	✓	✓	/
Beyond no-deforestation	Restoration	✓	✓	✓	✓	✓
Total KPIs fully achieved		11	12	11	12	9

Summary

Progress: Amaggi has reported limited progress through CDP between 2020 and 2023 however, indicators such as policy commitment, long-term planning, legal compliance and restoration have performed consistently well. Underperforming indicators include risk assessment, certification and traceability where there has been a decline in the proportion of certified materials produced or sourced and where traceability only reaches as far as direct suppliers, meaning it is difficult for the company to verify if soy has been produced free from deforestation.

Snapshot: Amaggi only meets best practice in 60% (9) of the KPIs, with action needed on certification, traceability, direct supplier engagement, and adoption of landscape/jurisdictional approaches where the expectations for best practice have changed or are no longer being met.

Governance



- **Board oversight:** The Chief Sustainability Officer (CSO) is responsible for overseeing forest-related matters, which are integrated into key governance mechanisms. Forest-related issues are reported to the board more than once a quarter. As Chief Executive Officer (CEO) responsibilities do not explicitly include the assessment and management of forest-related risks and opportunities, Amaggi meets only the basic level KPI.

To meet the KPI

- ▶ Broaden its management-level responsibility to encompass the assessment and management of forest-related risks and opportunities.

Risk management



- **Risk assessment:** Amaggi reported risk assessment practices within its risk management framework, spanning a period exceeding six years; and considers the availability of forest risk commodities and potential impact of operations on ecosystem and habitat statuses, as well as social impacts on local communities. Amaggi has mapped 100% of its operations, encompassing both tier 1 and tier 2 suppliers.
- However, quality assessment is absent within the risk evaluation process, and detailed information regarding facilities at both its own sites and those of its suppliers remains undisclosed. While Amaggi meets the basic level for risk assessment, there is scope for increased thoroughness and transparency of its risk management practices.

To meet the KPI

- ▶ Assess the quality of forest risk commodities.
- ▶ Provide comprehensive details on organizational value chain mapping, encompassing tiers 1–4 suppliers and beyond. This should include the percentage of total suppliers covered, along with a list of facility names and locations for both own and supplier sites.



Measuring & targets



Targets: Amaggi committed to tracing 100% of its supply back to the farm level and successfully achieved this milestone in 2022. However, it fell short of the certification target due to the limited volume of deforestation-free certified soy. Despite this setback, Amaggi still meets the requirements for the full level target KPI¹⁸.



Certification: Amaggi reported that 51% of its soy is certified, however, only 3% of its total soy volume held was certified deforestation-free (Proterra) in 2023, a decrease from 71% in 2020, meaning they only met the basic level KPI.



Traceability: Amaggi achieved 100% traceability to the farm level in Brazil for its direct suppliers, but as indirect suppliers are excluded from this assessment, only basic level KPI is met.



Commitment compliance: Amaggi reported implementing a system to monitor, control, or verify suppliers' adherence to its no conversion and/or no deforestation commitments, encompassing all relevant direct operations or supply chains. Various monitoring approaches were utilized. Amaggi verified 100% of its soy production and 66% of consumption volumes as DCF, needing to increase the proportion of verified consumption volume to ensure fulfilment of the target.

To meet the KPI

- Provide comprehensive information on achieved traceability levels for both direct and indirect suppliers, without any exclusions.
- Ensure over 90% of full commodity production and consumption is verified as deforestation- and conversion-free, with the entire supply chain's deforestation/conversion footprint monitored without exclusions. This can be achieved through procurement or use of deforestation-free certified products or monitoring of production units or sourcing areas.



Value chain engagement



Direct suppliers: In 2023, 66% of direct suppliers received technical assistance aimed at facilitating certification for growers, and premium payments for certified products. However, Amaggi didn't report providing support for suppliers in establishing their own no-deforestation/conversion commitments thereby failing to meet the full level KPI requirement.



Landscape approaches: Amaggi's engagement extends to landscape and jurisdictional approaches (LA/JA) in Amazonia and Mato Grosso, Brazil. Through collaboration with stakeholders including local communities, smallholders, and subnational governments. Amaggi supports objectives such as preventing deforestation/conversion of natural ecosystems, reducing degradation rates, protecting biodiversity, and promoting restoration efforts. Progress is monitored through an internal, rather than shared external framework, so the mid-level KPI is met.

To meet the KPI

- Offer support to direct suppliers in setting their own DCF commitments across all commodity operations with clear, time-bound public action plans.
- Ensure transparency by monitoring the progress of the LA/JA toward shared sustainable land use goals through an external monitoring framework.

¹⁸ To achieve full level under the target KPI, companies must attain the full level in either the traceability target or the certification target.

Archer Daniels Midland



Archer Daniels Midland

Soy performance 2020–2023



Reported production and sourcing footprint in 2023

Consumption volume (metric tons)

43,750,000

Production & sourcing areas



Rest of the world
64%

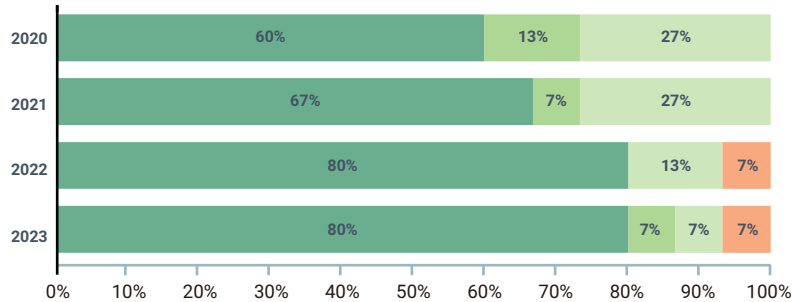
Legend

- Full (✓) ■ None (X)
- Mid (/) ■ N/A (-)
- Basic (I)

* **Progress:** An assessment of the organizations' disclosures over time, using the indicator definitions used in the baseline assessment (2021 CDP forest-related KPIs definitions).

** **Snapshot:** An assessment of the company's most recent disclosure (2023) using the current forest-related KPIs definitions.

KPI progress



Detailed KPI progress and snapshot

Category	KPIs	Progress*				Snapshot**
		2020	2021	2022	2023	2023
Governance	Board oversight	✓	✓	✓	✓	✓
	Policy	/	✓	✓	✓	/
	Commitment			X	/	/
Strategy	Long-term planning	✓	✓	✓	✓	✓
Risk management	Risk assessment	✓	✓	✓	✓	
Measuring & targets	Targets			✓	✓	✓
	Certification					
	Traceability	✓			✓	✓
	Commitment compliance	✓	✓	✓	✓	/
	Legal compliance	✓	✓	✓	✓	✓
Value chain engagement	SCE - Smallholders	✓	✓	✓	✓	✓
	SCE - Direct suppliers	✓	✓	✓	✓	
	SCE - Beyond first-tier	✓	✓	✓	X	X
	Landscape approaches	/	/	✓	✓	/
Beyond no-deforestation	Restoration		✓	✓	✓	✓
Total KPIs fully achieved		9	10	12	12	7

Summary

Progress: Archer Daniels Midland (ADM) has shown progress in most areas, achieving full level in 80% (12) of total KPIs in 2023, up from 60% (9) in 2020. ADM has performed well on indicators such as long-term planning, legal compliance, and restoration.

Critical attention is needed to expand the scope of the commitment to include remediation elements, enhance transparency regarding facilities at ADM's or its suppliers' sites for risk assessment, increase the volume of DCF-verified soy, and initiate monitoring of landscape/jurisdictional approaches (LA/JA) progress.

Snapshot: Meeting current best practices for only 47% (7) of KPIs, increased ambition and action is needed in critical areas such as commitment, certification, compliance, direct and beyond-first-tier engagement, and the adoption of LA/JA.

Governance



Policy: ADM has a publicly available company-wide no-deforestation and no-conversion of primary native vegetation in defined high-risk areas policy¹⁹ encompassing remediation, restoration and social elements. However, it does not provide time-bound milestones and targets, resulting in mid-level policy KPI fulfilment.



Commitment: ADM reported commitment to eliminating deforestation from its supply chains by 2025, with a 2008 cut-off date, covering 100% of production/consumption volumes and applies globally across direct operations and supply chains. Although the commitment includes a social element, it lacks a restoration element, meeting the mid-level commitment KPI.



To meet the KPI

► Policies and commitments should incorporate social, remediation and restoration elements, along with a list of time-bound milestones and targets. Additionally, they should be extended to include the element of no conversion of natural ecosystems in all geographies to ensure comprehensive protection and mitigate the risk of leakage.

Risk management



Risk assessment: ADM has reported conducting a risk assessment specifically focused on soy, encompassing both direct operations and the supply chain, with consideration of risks extending beyond six years. Critical issues addressed include the availability and quality of forest risk commodities, as well as the impact of activities on ecosystem and habitat statuses, social impacts, and local communities. ADM has mapped its tier 1 and 2 suppliers, ensuring coverage of 100% of its suppliers, but it has not disclosed detailed information regarding the facilities of its own or its suppliers' sites, thereby meeting only the basic level requirement in this regard.






To meet the KPI

► Comprehensive details on organizational value chain mapping should be provided, encompassing tiers 1-4 suppliers and beyond. This should include the percentage of total suppliers covered, along with a list of facility names and locations for both own and supplier sites.

¹⁹ ADM. Policy to Protect Forests, Biodiversity and Communities. <https://www.adm.com/globalassets/sustainability/goals-programs/protect-biodiversity-forests-communities/11-2023-protect-biodiversity-forests-communities-enlgish.pdf>



Measuring & targets

-  **Certification:** ADM reported a decrease in the volume of certified soy, dropping to 3% in 2023 from 9% in 2022 and 13% in 2021, and highlighted that over 61% of the soy supply originates from low-risk countries like the USA. Due to the limited volume of certified soy, it only meets the basic level requirement.
-  **Traceability:** Although ADM's progress on traceability has been inconsistent, in 2023 it achieved 100% traceability up to farm level in Brazil, and up to the country level for the rest of the world, satisfying the full level requirement.
-  **Commitment compliance:** ADM has implemented a system to control, monitor, or verify suppliers' adherence to its no conversion and/or no deforestation commitments, covering all relevant direct operations or supply chains with up to 99% soy volume and suppliers in compliance. ADM's monitoring, reporting and verification (MRV) approaches include both first- and third-party verification, as well as geospatial monitoring tools. However, only 21% of its soy consumption volume is verified as DCF, falling below the 90% requirement, therefore ADM meets only the mid-level requirement in this area.

To meet the KPI

- ▶ Provide comprehensive information on achieved traceability levels for both direct and indirect suppliers, without any exclusions.
- ▶ Ensure over 90% of full commodity production and consumption is verified as DCF, with the entire supply chain's deforestation/conversion footprint monitored without exclusions. This can be achieved through procurement or use of deforestation-free certified products or monitoring of production units or sourcing areas.



Value chain engagement

-  **Direct suppliers:** In 2023, ADM took significant strides in engaging its direct suppliers, focusing on enhancing their capacity for responsible supply chains and DCF practices. Through on-site training and technical assistance, all suppliers were actively involved. However, ADM did not report providing support for suppliers in establishing their own no-deforestation and conversion commitments, thereby failing to meet the full level KPI requirement.
-  **Beyond first-tier:** ADM's engagement with its second-tier soy suppliers in 2023 was not sufficiently disclosed, thus this KPI was not met. Past reports have indicated ADM's involvement in pilot projects, investing in digital tools to verify supply chain adherence to both the Brazilian Forest Code and ADM's corporate commitments.
-  **Landscape approaches:** ADM's involvement in a collaborative effort in the Cerrado region of Brazil, accounting for 14% of its consumption, alongside the Government of Maranhão and Produzindo Certo, is noteworthy. The initiative aims to implement practices that support livelihoods and conserve or restore natural ecosystems in the Cerrado, encompassing activities such as land use management and planning, and developing a comprehensive framework inclusive of social elements. However, progress of this initiative is currently not being monitored. ADM has expressed intentions to rectify this within the next two years, thereby meeting mid-level requirements.

To meet the KPI

- ▶ Offer support to direct suppliers, assisting them in setting their own commitments to prevent deforestation/conversion across all commodity operations and in developing public action plans with clear, time-bound milestones.
- ▶ Extend efforts beyond its first-tier suppliers to manage and mitigate deforestation risks, through capacity building initiatives, such as offering on-site training and technical assistance, or by investing in pilot projects.
- ▶ Ensure transparency by monitoring the progress of LA/JA initiatives toward shared sustainable land use goals through an external monitoring framework.

BRF



BRF

Soy performance 2022–2023



Reported production and sourcing footprint in 2023

Partial consumption volume (metric tons)

446,731

Production & sourcing areas



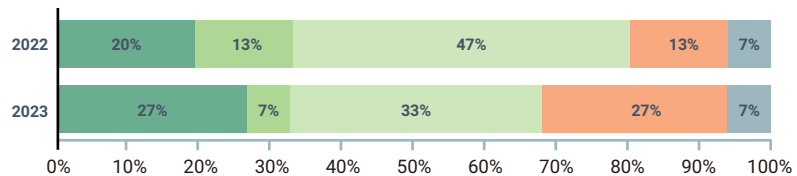
Legend

- Full (✓)
- None (X)
- Mid (/)
- N/A (-)
- Basic (I)

* **Progress:** An assessment of the organizations' disclosures over time, using the indicator definitions used in the baseline assessment (2021 CDP forest-related KPIs definitions).

** **Snapshot:** An assessment of the company's most recent disclosure (2023) using the current forest-related KPIs definitions.

KPI progress²⁰



Detailed KPI progress and snapshot

Category	KPIs	Progress*		Snapshot**
		2022	2023	2023
Governance	Board oversight	✓	✓	I
	Policy	/	/	/
	Commitment	I	I	I
Strategy	Long-term planning	✓	✓	✓
Risk management	Risk assessment	I	I	I
Measuring & targets	Targets	I	I	I
	Certification	X	X	X
	Traceability	I	I	I
	Commitment compliance	I	✓	/
	Legal compliance	✓	✓	✓
Value chain engagement	SCE - Smallholders	I	I	I
	SCE - Direct suppliers	I	X	X
	SCE - Beyond first-tier	-	-	-
	Landscape approaches	/	X	X
Beyond no-deforestation	Restoration	X	X	X
Total KPIs fully achieved		3	4	2

²⁰ BRF started disclosing to CDP forests publicly in 2022

Summary

Progress: In 2022, BRF took a commendable step toward transparency by publicly reporting its efforts to eliminate deforestation from its supply chain through CDP. This disclosure marks a critical move towards greater accountability. However, progress in meeting best practices requirements remains limited. In 2023, only 27% (4) of total KPIs achieved full-level status, marking an increase from 20% (3) in 2022. Performance is consistent on long-term planning and legal compliance but performance or disclosure on certifications and traceability is lacking. Value chain engagement, particularly direct supplier and landscape approach engagement, exhibits a declining trend and BRF reported no involvement in ecosystem restoration and protection projects.

An ambitious no conversion commitment could be further supported by inclusion of social elements, sub-targets, disclosure of soy certification status, traceability both in volume and points of origin, and increasing the volume of DCF verified soy.

Snapshot: Data reveals BRF only met 13% (2) of current best practice KPIs, highlighting the need to keep pace with good practice as it strives to achieve DCF.



Governance

-  **Board oversight:** While BRF reported oversight from the CEO, CSO, board-level committees and a Sustainability Executive Committee on forest-related matters, there was a lack of relevant management-level responsibility for assessing and managing forest-related risks and opportunities.
-  **Policy:** BRF publicly shared a company-wide no-deforestation and conversion policy in 2023, inclusive of remediation and restoration elements but lacking social elements. This policy, with time-bound milestones and targets, met mid-level policy KPI requirements.
-  **Commitment:** BRF reported a commitment in 2023 to eliminate deforestation and conversion from its supply chains by 2025, covering all production/consumption volumes, particularly in Amazon and Cerrado biomes²¹. Despite this, it lacks elements such as Free, Prior, Informed and Consent (FPIC), as well as provisions for remediation and restoration efforts and protection of labor and indigenous communities, fulfilling only basic level requirements.

To meet the KPI

- ▶ Broaden management-level responsibility to encompass the assessment and management of forest-related risks and opportunities.
- ▶ Policies and commitments should incorporate social, remediation and restoration elements, along with a list of time-bound milestones and targets.

²¹ BRF S.A. BRF's Grain Sustainable Purchasing Policy. <https://www.brf-global.com/wp-content/themes/brf-global/assets/documents/politicas/BRFs-Grain-Sustainable-Purchasing-Policy.pdf>

Risk management



- ⓘ **Risk assessment:** BRF conducted forest-related risk assessments within its risk management framework, encompassing both direct operations and supply chains, with a consideration period of up to three years. The assessment prioritized critical forest-related issues and concentrated on commercial and regulatory stakeholders. BRF mapped 100% of its tier 1, 2, and 3 suppliers. However, it did not furnish specifics regarding its own or its suppliers' production and primary processing sites, thereby meeting only basic-level requirements.

Measuring & targets



- 🎯 **Targets:** BRF's progress in sustainable soy supply chain targets is limited. It aimed to trace 100% of its soy supply back to the farm level by 2025. However, in 2023 BRF reported meeting 43% of this target, with no direct link to BRF's no-deforestation commitment, meeting basic level requirements.
- 🏆 **Certification:** Since 2022, BRF has not disclosed the total volume of certified soy, impeding progress evaluation.
- 🔍 **Traceability:** BRF has implemented a traceability system up to the farm level in Brazil, covering 43% of its total soy volume from both direct and indirect suppliers without exclusions, fulfilling basic level requirements.
- 🚫 **Commitment compliance:** To ensure supplier compliance, BRF implements a system to monitor and verify adherence to no-conversion and/or no-deforestation commitments, covering 100% of soy volume and suppliers; and utilizes geospatial monitoring. Only 43% of soy consumption volume is verified as deforestation- and/or conversion-free, falling short of the 90% requirement, but BRF's performance against this KPI is progressing, meeting mid-level requirements in 2023.

To meet the KPI

- Increase the time horizons of risk assessments to give more time to react to incoming risks and mitigate business impacts.
- Assess impact of activity on local communities over the longer term.
- Comprehensive details on organizational value chain mapping should be provided, encompassing tiers 1-4 suppliers and beyond. This should include the percentage of total suppliers covered, along with a list of facility names and locations for both own and supplier sites.

To meet the KPI

- Link forest-related targets with commitments to prevent deforestation and conversion of natural ecosystems, ensuring steady progress or attainment.
- Provide comprehensive information on achieved traceability levels for both direct and indirect suppliers, without any exclusions.
- Ensure over 90% of full commodity production and consumption is verified as deforestation- and conversion-free, with the entire supply chain's deforestation/conversion footprint monitored without exclusions. This can be achieved through procurement or use of deforestation-free certified products or monitoring of production units or sourcing areas.

Value chain engagement



Smallholders: In 2023, BRF initiated supply chain mapping to identify smallholders within its supply chain, involving a total of nine smallholders. However, this engagement lacked specific details about any financial and technical support elements being delivered, and so only met the basic-level requirements.



Direct suppliers: BRF did not disclose information regarding direct supplier engagement in 2023, hindering the assessment of performance in this area. In 2022, engagement with direct suppliers was reported through supply chain mapping, meeting basic level requirements.



Beyond first-tier: As BRF operates mainly in the processing stage of the value chain, beyond first-tier engagement is not applicable.



Landscape approaches: BRF reported no engagement but plans to do so within the next two years.

To meet the KPI

- Support smallholders to adopt good agricultural practices and reduce deforestation and/or conversion of natural ecosystems by providing technical assistance, or financial and commercial incentives.
- Offer support to direct suppliers, assisting them in setting their own commitments to prevent deforestation/conversion across all commodity operations and in developing public action plans with clear, time-bound milestones.
- Improve performance against essential forest-related criteria by disclosing against direct supplier engagement metric.
- Participate in landscape/jurisdictional approaches (LA/JA) and monitor and report progress, either sourcing certified soy from the landscape or contributing to sustainability objectives beyond supply chains.

Beyond no-deforestation



Restoration: BRF did not disclose information regarding the implementation of ecosystem restoration and long-term protection projects. As a result, progress in these areas cannot be assessed.

To meet the KPI

- Implement restoration with the suppliers that have been identified as non-compliant through compliance monitoring. Supporting suppliers to restore degraded land presents a good opportunity to progress against the KPI. BRF may also choose to take part in other projects outside of its supply chain.

Bunge



Bunge

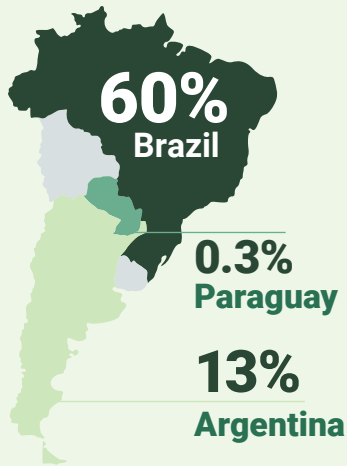
Soy performance 2020–2023



Reported production and sourcing footprint in 2023

Production & consumption volume
Not disclosed

Production & sourcing areas



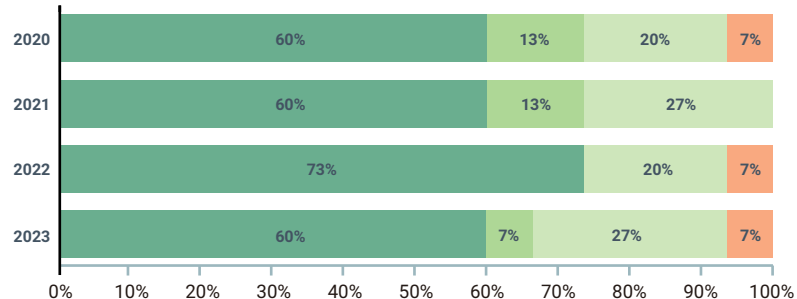
Legend

- Full (✓) None (X)
- Mid (/) N/A (-)
- Basic (I)

* **Progress:** An assessment of the organizations' disclosures over time, using the indicator definitions used in the baseline assessment (2021 CDP forest-related KPIs definitions).

** **Snapshot:** An assessment of the company's most recent disclosure (2023) using the current forest-related KPIs definitions.

KPI progress.



Detailed KPI progress and snapshot

Category	KPIs	Progress*				Snapshot**
		2020	2021	2022	2023	2023
Governance	Board oversight	✓	✓	✓	✓	✓
	Policy	/	/	✓	/	/
	Commitment					
Strategy	Long-term planning	✓	✓	✓	✓	✓
Risk management	Risk assessment					
Measuring & targets	Targets	✓	✓	✓		
	Certification			X	X	X
	Traceability	✓	✓			
	Commitment compliance	✓	✓	✓	✓	/
	Legal compliance	✓	✓	✓	✓	✓
Value chain engagement	SCE - Smallholders	✓	✓	✓	✓	✓
	SCE - Direct suppliers	✓	✓	✓	✓	
	SCE - Beyond first-tier	✓	✓	✓	✓	✓
	Landscape approaches	/	/	✓	✓	/
Beyond no-deforestation	Restoration	X		✓	✓	✓
Total KPIs fully achieved		9	9	11	9	6

Summary

Progress: Bunge's progress is stagnant. In 2023, it achieved the full level of 60% (9) of the KPIs, similar to the level in 2020. While long-term planning and legal compliance are performing well, there are opportunities for improvement in measurement and value chain engagement.

Bunge should ensure that policies and commitments cover social, restoration, and remediation elements and include a cut-off date no later than 2020. Risk assessment needs expansion to include relevant issues and full transparency in the supply chain. Additionally, stronger ambitions and actions are needed in setting targets and measurements. Disclosure on certification should provide more detailed information for assessment, and traceability needs to be expanded to cover indirect suppliers.

Snapshot: Bunge is only achieving current best practices for 40% (6) of the KPIs, needing to keep pace with good practice as it evolves in the critical KPIs mentioned above. These improvements can contribute to achieving a DCF soy supply chain by 2025.



Governance

-  **Policy:** In 2023, Bunge reported a commodity-specific, company-wide public forest-related policy aimed at eliminating deforestation from the supply chain, but this lacked remediation, restoration, and social elements, as well as a list of timebound milestones and targets, thus meeting only basic-level KPI requirements.
-  **Commitment:** Bunge's publicly available no-deforestation and native vegetation no-conversion commitment²² covers all production/consumption volumes and applies to its direct operations and global supply chain, particularly focusing on high-risk areas like the Cerrado in Brazil and the Gran Chaco of Paraguay and Argentina. While the commitment aims for achievement by 2025, no specific cut-off date was reported and it lacks several crucial elements, including labor, restoration, and compensation of past deforestation/conversion elements, thereby fulfilling only basic level requirements.

To meet the KPI

- ▶ Policies and commitments should incorporate social, remediation and restoration elements, along with a list of time-bound milestones and targets. Additionally, they should be extended to include the element of no conversion of natural ecosystems in all geographies to ensure comprehensive protection and mitigate the risk of leakage.
- ▶ Cut-off dates should not be later than 2020 to meet Accountability Framework and emerging Forest Land and Agriculture Science-based Target, while target should be achieved no later than 2025.

²² Bunge. Non-Deforestation Commitment. <https://www.bunge.com/Sustainability/Non-Deforestation-Commitment>



Risk management

- ⓘ **Risk assessment:** Bunge conducted risk assessments for its soy supply chain within its risk management framework, looking up to three years ahead and considering the availability of forest risk commodities and their impacts on stakeholders, including local communities. Bunge mapped its entire value chain, encompassing its own operations, smallholders, and tier 1 and tier 2 suppliers, covering 100% of its suppliers. However, details on production and processing sites are undisclosed, meeting only basic level requirements.



Measuring & targets

- 🎯 **Targets:** In 2023, Bunge reported no-deforestation commitment-linked targets to trace 100% of its soy supply back to the farm level for both direct and indirect sourcing in priority regions by 2025. It reported being able to trace 100% of its soy sourcing from direct source farms while achieving 82% traceability for indirect source farm level, meets basic level requirements.
- 🏆 **Certification:** Certification progress has declined with only 15% of total soy production and/or consumption volume reported certified in 2023, but no further detail on if this is no-deforestation compliant. In 2020 and 2021, Bunge reported 0.7% and 1% of their soy volume certified under no-deforestation-compliant certification, respectively.
- 🔍 **Traceability:** Bunge's traceability system could trace 97% of its soy supply from direct and indirect sourcing up to the farm level, in Argentina, Brazil and Paraguay with exclusions, meeting basic level requirements. Yet, in 2020 and 2021, Bunge achieved up to 100% traceability up to the farm level without exclusions in South America.
- 🚫 **Commitment compliance:** Bunge reported employing monitoring, reporting and verification (MRV) systems, assessing suppliers' compliance with policies and commitments across relevant value chains. It reported 100% compliance of soy volume and suppliers, utilizing various monitoring tools such as geospatial and ground-based monitoring systems and third-party verification. Over 90% of partial soy consumption volume in areas identified as high risk was verified as DCF, fulfilling mid-level requirements. Further improvement is needed in increasing the volume of DCF soy to cover full consumption and disclosing detailed cut-off dates.

To meet the KPI

- Increase the time horizons of their risk assessments to give more time to react to incoming risks and mitigate business impacts.
- Comprehensive details on organizational value chain mapping should be provided, encompassing tiers 1-4 suppliers and beyond. This should include the percentage of total suppliers covered, along with a list of facility names and locations for both own and supplier sites.

To meet the KPI

- Link forest-related targets with commitments to prevent deforestation and conversion of natural ecosystems, ensuring steady progress or attainment.
- Provide comprehensive information on achieved traceability levels for both direct and indirect suppliers, without any exclusions.
- Ensure over 90% of full commodity production and consumption is verified as deforestation- and conversion-free, with the entire supply chain's deforestation/ conversion footprint monitored without exclusions. This can be achieved through procurement or use of deforestation-free certified products or monitoring of production units or sourcing areas.
- Disclose details on deforestation and conversion since the specified cutoff date or during the last five years.

Value chain engagement



Direct suppliers: Bunge's direct supplier engagement indicates steady progress. The company reported providing supports including financial and technical to all direct suppliers. However, Bunge did not report supporting suppliers to establish their own no deforestation/conversion commitments across their entire commodity operations or to develop public time-bound action plans with clear milestones, thus meeting only basic-level requirements.



Landscape approaches: In terms of landscape approaches, Bunge focused on the Cerrado Biome in Brazil, a region from which it sourced 44% of its soy. Through the Sustainable Partnership Program, Bunge works with governments to prevent deforestation, protect biodiversity and monitor forest fires, taking actions like preferential sourcing and supply chain mapping. The progress of this initiative is collectively monitored using a shared external framework. To align with best practices, collaboration must involve a minimum of three stakeholders, not only bilaterally with governments, thus Bunge meets mid-level requirements.

To meet the KPI

- Offer support to direct suppliers, assisting them in setting their own commitments to prevent deforestation/conversion across all commodity operations and in developing public action plans with clear, time-bound milestones.
- At least three partners and three goals are needed for landscape (including jurisdictional) approaches to be recognised as credible.



Cargill



Cargill

Soy performance 2020–2023



Reported production and
sourcing footprint in 2023

Production &
consumption volume
Not disclosed

Production &
sourcing areas
% not disclosed



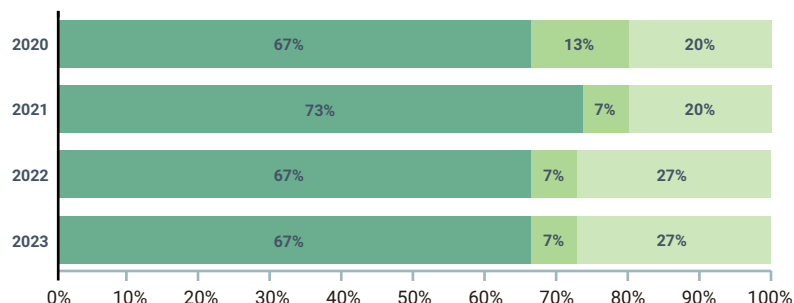
Legend

- Full (✓) None (X)
- Mid (/) N/A (-)
- Basic (I)

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** **Snapshot:** An assessment of the company's most recent disclosure (2023) using the current forest-related KPIs definitions.

KPI progress



Detailed KPI progress and snapshot

Category	KPIs	Progress*				Snapshot**
		2020	2021	2022	2023	2023
Governance	Board oversight	✓	✓	✓	✓	✓
	Policy	/	/	/	/	/
	Commitment					
Strategy	Long-term planning	✓	✓	✓	✓	✓
Risk management	Risk assessment					
Measuring & targets	Targets	✓	✓	✓		
	Certification					
	Traceability	✓	✓		✓	✓
	Commitment compliance	✓	✓	✓	✓	/
	Legal compliance	✓	✓	✓	✓	✓
Value chain engagement	SCE - Smallholders	✓	✓	✓	✓	✓
	SCE - Direct suppliers	✓	✓	✓	✓	
	SCE - Beyond first-tier	✓	✓	✓	✓	✓
	Landscape approaches	/	✓	✓	✓	/
Beyond no-deforestation	Restoration	✓	✓	✓	✓	✓
Total KPIs fully achieved		10	11	10	10	7

Summary

Progress: Cargill's progress has remained stagnant over the observed period, reaching 67% (10) full level KPIs similar to 2020. While indicators such as long-term planning, legal compliance, smallholder engagement and restoration have shown positive performance, there is room for improvement in measurement and value chain engagement.

Commitments require enhancement with ambitious target dates and cut-off dates aligned with industry requirements and inclusion of no conversion of natural ecosystems in all geographies to mitigate the risk of leakage. Ensuring the achievement of targets is crucial, along with increasing the volume of DCF soy and improving direct supplier engagement.

Snapshot: Cargill only meets current best practice for 47% (7) of KPIs, needing to improve in critical KPIs, such as commitment, risk assessment, certification, and direct supplier engagement.

Governance

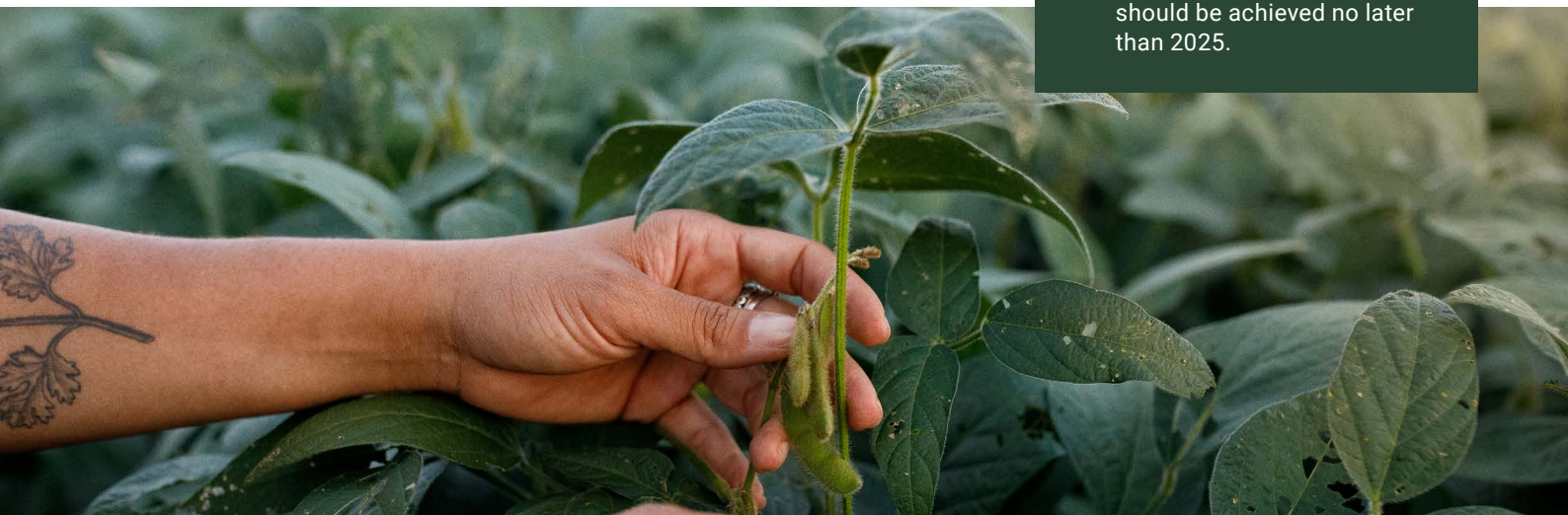


Policy: Cargill's reported public company-wide general forest-related policy encompasses all commodities and includes commitments to eliminate the conversion of natural ecosystems, and uphold no deforestation, no planting on peatlands, and no exploitation (NDPE), along with a list of time-bound milestones and targets. However, the policy lacks remediation and social elements, meeting only mid-level requirements.

Commitment: Cargill has public no-deforestation commitments but with inconsistent target dates or missing cut-off dates. The no conversion of natural ecosystems commitment excludes operations in Argentina, Bolivia, and Paraguay. Additionally, elements of social, restoration and remediation aspects were absent from these commitments, fulfilling only basic-level requirements.


To meet the KPI

- ▶ Policies and commitments should incorporate social, remediation and restoration elements, along with a list of time-bound milestones and targets. Additionally, they should be extended to include the element of no conversion of natural ecosystems in all geographies to ensure comprehensive protection and mitigate the risk of leakage.
- ▶ Cut-off dates should not be later than 2020 to meet the Accountability Framework and emerging Forest Land and Agriculture Science Based Target, while the target should be achieved no later than 2025.





Risk management

-  **Risk assessment:** Cargill conducted an environmental risk assessment for its soy supply chain, projecting risks up to six years ahead and considering the availability of forest risk commodities; and provided details on production and processing sites. However, it overlooked critical issues such as the quality of forest risk commodities and social impact. Furthermore, Cargill only partially mapped its supply chain, covering 97% of its tier 1 suppliers. Due to this, it meets only basic-level KPIs.



Measuring & targets

-  **Targets:** Cargill reported targets to trace 100% of soy sourced from South America back to farm level, it narrowly missed its target, achieving 99.6% in 2023.
-  **Certification:** Progress on third-party certification remains stagnant, with only 5% of total soy volume certified with Round Table for Responsible Soy (RTRS) Mass Balance, 2BSvs, and Triple S certification, fulfilling basic-level requirements. From 2020 to 2023, the volume of certified soy has fluctuated, reaching the highest level in 2022 with 8.8%.
-  **Traceability:** In 2023, Cargill could trace 64% of soy volume to the farm level and 36% to the municipal level without exclusions, meeting full-level KPI.
-  **Commitment compliance:** Cargill demonstrates progress on compliance, reporting a system to control, monitor or verify suppliers' compliance with its no conversion and/or no deforestation commitments, covering all relevant direct operations or supply chains, with 100% compliance. Monitoring is conducted through various approaches, and deforestation or conversion footprint assessment has been ongoing since 2008. However, details on soy volumes verified as DCF were not disclosed, therefore, Cargill meets mid-level requirements.

To meet the KPI

- Assess the availability and quality of forest risk commodities, as well as the impact of activities on ecosystems, habitats, and local communities over the long term.
- Comprehensive details on organizational value chain mapping should be provided, encompassing tiers 1–4 suppliers and beyond. This should include the percentage of total suppliers covered, along with a list of facility names and locations for both own and supplier sites.

To meet the KPI

- Link forest-related targets with commitments to prevent deforestation and conversion of natural ecosystems, ensuring steady progress or attainment.
- Ensure over 90% of full commodity production and consumption is verified as deforestation- and conversion-free, with the entire supply chain's deforestation/conversion footprint monitored without exclusions. This can be achieved through procurement or use of deforestation-free certified products or monitoring of production units or sourcing areas.

Value chain engagement



- **Direct suppliers:** In 2023, Cargill reported engaging directly with suppliers to enhance their capacity for responsible, DCF soy supply chains, including training, technical assistance, investment in pilot projects, and offering higher prices linked to best agricultural practices. However, Cargill did not report supporting its suppliers in setting their own no deforestation/conversion commitments across their entire commodity operations or developing public time-bound action plans with clear milestones, falling short of meeting the full level KPI.



- **Landscape approaches:** Cargill is actively involved in three landscape/jurisdictional approaches initiatives, including in the Cerrado and other priority locations in Brazil, as well as in Siak Pelalawan, Indonesia. In Brazil, the partnerships offer training for good agricultural practices and engage stakeholders to promote awareness about the benefits of intact forests and restoration. While Cargill reports production/sourcing from these regions and uses a shared external framework to monitor, it has not provided a detailed proportion of produced/sourced volume, fulfilling mid-level requirements.

To meet the KPI

- ▶ Offer expanded support to direct suppliers, assisting them in setting their own commitments to prevent deforestation/conversion across all commodity operations and in developing public action plans with clear, time-bound milestones.
- ▶ Ensure transparency of LA/JA initiative by monitoring progress toward shared sustainable land use goals through an external monitoring framework, including the volume sourced from the landscape/jurisdiction.



JBS



JBS

Cattle performance 2020–2023



Reported production and sourcing footprint in 2023

Consumption volume

6.5million cattle

Production & sourcing areas



Data excluding part of indirect suppliers from Brazil (% volume of exclusion is unknown)

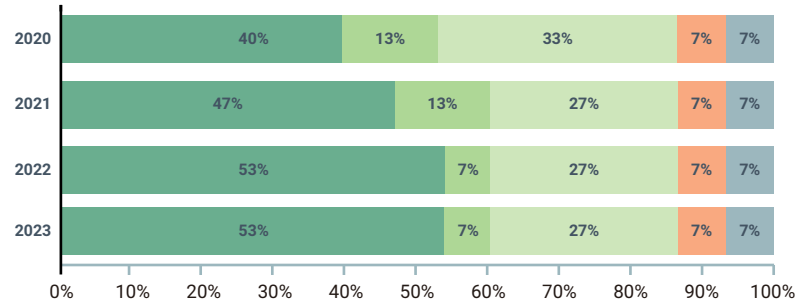
Legend

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** **Snapshot:** An assessment of the company's most recent disclosure (2023) using the current forest-related KPIs definitions.

KPI progress



Detailed KPI progress and snapshot

Category	KPIs	Progress*				Snapshot**
		2020	2021	2022	2023	2023
Governance	Board oversight	✓	✓	✓	✓	I
	Policy	I	I	I	I	I
	Commitment	I	I	I	I	I
Strategy	Long-term planning	✓	✓	✓	✓	✓
Risk management	Risk assessment	I	✓	✓	✓	✓
Measuring & targets	Targets	I	I	I	I	I
	Certification	X	X	X	X	X
	Traceability	I	I	I	I	I
	Commitment compliance	/	/	/	/	/
	Legal compliance	✓	✓	✓	✓	✓
Value chain engagement	SCE - Smallholders	✓	✓	✓	✓	✓
	SCE - Direct suppliers	✓	✓	✓	✓	I
	SCE - Beyond first-tier	-	-	-	-	-
	Landscape approaches	/	/	✓	✓	/
Beyond no-deforestation	Restoration	✓	✓	✓	✓	✓
Total KPIs fully achieved		6	7	8	8	5

Summary


Progress: JBS has demonstrated some progress, achieving 53% (8) of full level KPIs by 2023, from 40% (6) in 2020. While indicators such as long-term planning, legal compliance, and restoration exhibited strong performance, critical areas such as policy, commitments, targets, certifications, and traceability require more robust actions.


The commitment lacks essential no-conversion of natural ecosystem, social, restoration and remediation elements, while certification efforts remain focused solely on leather products. Traceability continues to be reported with exclusions, indicating a need for improvement in supply chain transparency.


Snapshot: JBS only meets current best practice for 33% (5) of KPIs needing to improve in critical KPIs above. Addressing these areas is crucial for achieving a DCF cattle supply chain by 2025. In addition to cattle products, JBS also disclosed information about its soy commodities, including embedded soy. The company reported sourcing soy from Brazil as feedstock for its poultry and pork livestock.

Governance



 **Board oversight:** In 2023, JBS reported a board-level committee to oversee forest-related issues, integrating them into the company's governance mechanisms and providing quarterly reports to the board. However, management responsibilities did not extend to managing forest-related risks and opportunities, meeting only the basic-level requirements.

 **Policy:** JBS reported a publicly available general forest-related policy in 2023, but its scope was limited to selected facilities, businesses or geographies. While this policy includes a commitment to eliminating deforestation and protecting the rights and livelihoods of local communities, it lacks elements of remediation and restoration and does not provide a list of time-bound milestones and targets, thus meeting only basic-level requirements.

 **Commitment:** JBS reported a public forest-related commitment covering 100% of its supply chain, with a 2008 cut-off date to be achieved by 2025. However, this commitment focuses solely on zero-gross deforestation and excludes elements such as remediation, restoration or social aspects, fulfilling only the basic KPI. Both JBS' policy and commitments do not include the element of no conversion of other natural ecosystems, increasing the risk of displacing impacts from cattle or soy to other ecosystems.

To meet the KPI

- Broaden management-level responsibility to encompass the assessment and management of forest-related risks and opportunities.
- Expand the scope of policy to cover operations and supply chains across geographies, business, and facilities (company-wide).
- Policies and commitments should incorporate social, remediation and restoration elements, along with a list of time-bound milestones and targets. Additionally, they should be extended to include the element of no conversion of natural ecosystems in all geographies to ensure comprehensive protection and mitigate the risk of leakage.



Measuring & targets



Targets: In 2023, JBS reported forest-related targets focused on direct and indirect supplier engagement within a specific business division, meeting only the basic level requirement.



Certification: From 2020 to 2023, JBS consistently reported certification volumes only for its hides/leather products instead of its major commodity, beef, thus did not meet this KPI at all.



Traceability: JBS could trace 100% of selected cattle products to the fattening farm in Brazil however, due to this limited view and exclusions, it fulfilled only the basic-level requirement.



Commitment compliance: JBS has reported 100% compliance with its zero-gross deforestation commitment using geospatial monitoring and verification tools but it has not been assessed as performing on this KPI due to limitations with its initial commitment. Stakeholders are interested in commitments and progress towards deforestation- and conversion-free production and sourcing over an organisation's entire operation and supply chain. Due to the limitations in commitment, policy, monitoring and verification, this claim covers at most, 45% of operations.



Value chain engagement



Direct suppliers: JBS' direct supplier engagement focused on enhancing suppliers' capacity for responsible and DCF beef supply chains. Engagement efforts encompassed all suppliers and involved on-site training, technical assistance and the development and distribution of supply chain mapping tools. However, JBS did not report providing support to its suppliers in establishing their own no deforestation/conversion commitments across their entire commodity operations or in developing public time-bound action plans with clear milestones, meeting only the basic level KPI.



Landscape approaches: JBS reported involvement in landscape/ jurisdictional approaches (LA/JA) in the Pantanal Biome in Brazil, collaborating with local communities and smallholders to mitigate deforestation or conversion of natural ecosystems, including efforts to monitor and prevent forest fires. These activities included capacity building for farmers and local communities regarding good agricultural practices and support to access incentives. The initiative's progress was not measured, but JBS plans to monitor it over the next two years, meeting the mid-level KPI.

To meet the KPI

- Targets linked to a no-deforestation commitment to source 100% certified no-deforestation compliant commodities and/or commitment to trace 100% of production/consumption back to at least municipality or equivalent and linear progress towards this target or have achieved it.
- Provide comprehensive information on achieved traceability levels for both direct and indirect suppliers, without any exclusions.
- Ensure over 90% of full commodity production and consumption is verified as deforestation- and conversion-free, with the entire supply chain's deforestation/conversion footprint monitored without exclusions. This can be achieved through procurement or use of deforestation-free certified products or monitoring of production units or sourcing areas.

To meet the KPI

- Offer expanded support to direct suppliers, assisting them in setting their own commitments to prevent deforestation/ conversion across all commodity operations and in developing public action plans with clear, time-bound milestones.
- Ensure transparency by monitoring the progress of LA/JA initiatives toward shared sustainable land use goals through an external monitoring framework.

Marfrig



Marfrig

Cattle performance 2020–2023

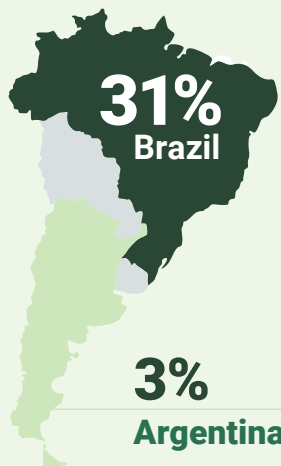


Reported production and sourcing footprint in 2023

Consumption volume (metric tons)

3,558,984

Production & sourcing areas



Rest of the world 63%

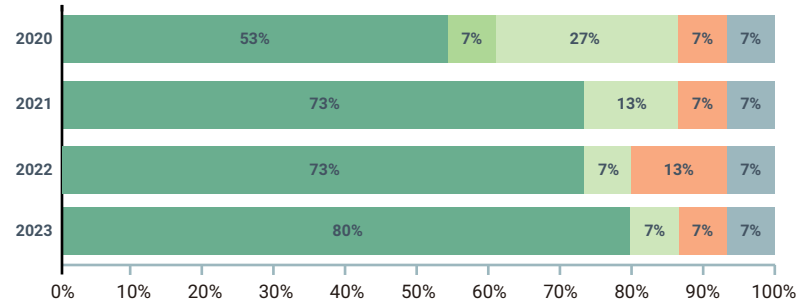
Legend

- Full (✓) None (X)
- Mid (/) N/A (-)
- Basic (|)

* **Progress:** An assessment of the organizations' disclosures over time, using the indicator definitions used in the baseline assessment (2021 CDP forest-related KPIs definitions).

** **Snapshot:** An assessment of the company's most recent disclosure (2023) using the current forest-related KPIs definitions.

KPI progress



Detailed KPI progress and snapshot

Category	KPIs	Progress*				Snapshot**
		2020	2021	2022	2023	2023
Governance	Board oversight	✓	✓	✓	✓	
	Policy	✓	✓	✓	✓	✓
	Commitment					
Strategy	Long-term planning	✓	✓	✓	✓	✓
Risk management	Risk assessment	✓	✓	✓	✓	
Measuring & targets	Targets	✓	✓	✓	✓	✓
	Certification			X	X	X
	Traceability		✓	✓	✓	✓
	Commitment compliance	✓	✓	✓	✓	✓
	Legal compliance	✓	✓	✓	✓	✓
Value chain engagement	SCE - Smallholders	✓	✓	✓	✓	✓
	SCE - Direct suppliers		✓	✓	✓	
	SCE - Beyond first-tier	-	-	-	-	-
	Landscape approaches	/	✓	✓	✓	/
Beyond no-deforestation	Restoration	X	X	X	✓	✓
Total KPIs fully achieved		8	11	11	12	8

Summary

Progress: Marfrig has made progress, as evidenced by the increase in full KPI achievement from 53% (8) in 2020 to 80% (12) in 2023. Key areas such as policy, long-term planning, target setting, commitment, legal compliance, and smallholder engagement have performed consistently. However, there remains room for improvement in critical aspects such as commitment fulfilment, certification, and direct supplier engagement.

Snapshot: Despite progress, only 53% (8) of current best practice KPIs have been met, with critical KPIs like commitments needing to be fully realized by 2025, and increasing volumes of DCF beef. Improving direct supplier engagement is also essential. By addressing these areas, it will contribute to a DCF supply chain by 2025.

In addition to cattle products, Marfrig also disclosed information about its soy commodities, including embedded soy. The company reported sourcing soy from Brazil and Uruguay for use as feedstock and in processed products.

Governance



Board oversight: Marfrig has made steady progress in board oversight, with key positions overseeing forest-related issues and integrating them into governance mechanisms. However, forest-related matters are only reported semi-annually, which falls short of the best practice recommendation of reporting at least quarterly.



Commitment: Marfrig has public no deforestation and no conversion commitments covering its entire cattle production/consumption to be achieved by 2030 with a 2008 cut-off date. While it includes significant elements like free prior informed and consent (FPIC) and recognition of land tenure rights, it lacks in areas such as conflict resolution and indigenous rights protection. Hence, Marfrig meets basic level requirements. In November 2023, Marfrig updated its no deforestation and no conversion commitment target date to 2025²³.

To meet the KPI

- Keep the board informed about forest-related matters at least quarterly to reflect a dedicated approach to implementing the forest-related strategy.
- Commitment should be achieved no later than 2025 to meet the Accountability Framework and emerging Forest Land and Agriculture Science-based Target.
- Broaden the scope of commitments to cover social issues (protection for the rights of indigenous people) and conflict resolution elements.

Risk management



Risk assessment: Marfrig has performed consistently in risk management. In 2023, it conducted forest-related risk assessments within its risk management framework, covering both direct operations and supply chains. These assessments considered current and future risks up to six years ahead, addressing critical forest-related issues and their impacts on stakeholders, including local communities. Marfrig mapped 100% of its tier 1 and 2 suppliers. However, it did not disclose details about its own or its suppliers' production and primary processing sites. Despite progress, Marfrig fell short of meeting best practices requirements in 2023 and scored at the basic level.

To meet the KPI

- Comprehensive details on organizational value chain mapping should be provided, encompassing tiers 1-4 suppliers and beyond. This should include the percentage of total suppliers covered, along with a list of facility names and locations for both own and supplier sites.



Measuring & targets



- **Certification:** Certification progress at Marfrig showed a declining trend. In 2023, 1% of its total beef consumption received Control Union Certification.



- **Traceability:** Better performance was demonstrated on traceability. Marfrig reported full traceability, tracing 100% of its cattle products back to the fattening farm level in Brazil without any exclusions, thereby meeting the full-level requirement.



Value chain engagement



- **Direct suppliers:** Marfrig engaged with 100% of its direct suppliers through training, technical assistance and investment in pilot projects. Programs like Marfrig Club support suppliers in adopting sustainable practices. However, Marfrig did not report providing support for its suppliers in setting their own no-deforestation/conversion commitments across its commodity operations or developing public time-bound action plans with clear milestones, meeting only the basic level requirement.



- **Landscape approaches:** Marfrig participated in two landscape/jurisdictional approaches initiatives in Mato Grosso, a significant sourcing area accounting for 45% of its cattle consumption, as well as in eight other Brazilian states. Collaborating in multistakeholder partnerships aims to achieve sustainable development by monitoring deforestation, natural ecosystem conversion, and degradation, and collaborating on commodity traceability. Although the progress of this initiative is not currently monitored, Marfrig plans to do so in the next two years, meeting the mid-level KPI requirement.

To meet the KPI

- ▶ Provide comprehensive information on achieved traceability levels for both direct and indirect suppliers, without any exclusions.
- ▶ Ensure over 90% of full commodity production and consumption is verified as deforestation- and conversion-free, with the entire supply chain's deforestation/conversion footprint monitored without exclusions. This can be achieved through procurement or use of deforestation-free certified products or monitoring of production units or sourcing areas.

To meet the KPI

- ▶ Offer expanded support to direct suppliers, assisting them in setting their own commitments to prevent deforestation/conversion across all commodity operations and in developing public action plans with clear, time-bound milestones.
- ▶ Ensure transparency of LA/JA initiative by monitoring progress toward shared sustainable land use goals through an external monitoring framework, including the volume sourced from the landscape/jurisdiction.



Minerva



Minerva

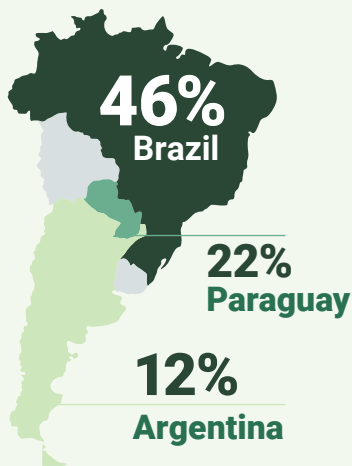
Cattle performance 2020–2023

Reported production and
sourcing footprint in 2023

Consumption volume
(unit of cattle)

3,752,961

Production & sourcing
areas



Rest of the world
12%

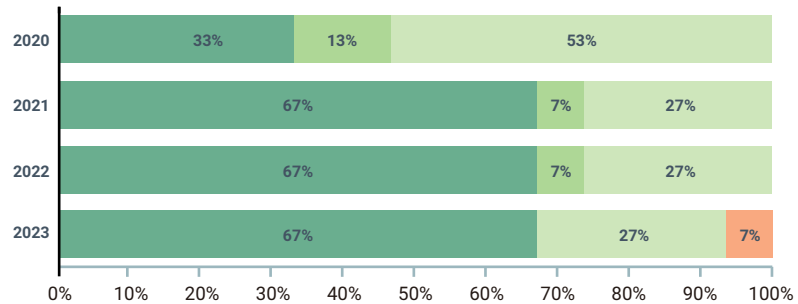
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** **Snapshot:** An assessment of the company's most recent disclosure (2023) using the current forest-related KPIs definitions.

KPI progress



Detailed KPI progress and snapshot

Category	KPIs	Progress*				Snapshot**
		2020	2021	2022	2023	2023
Governance	Board oversight	✓	✓	✓	✓	I
	Policy	I	I	/	✓	✓
	Commitment	I	I	I	I	I
Strategy	Long-term planning	✓	✓	✓	✓	✓
Risk management	Risk assessment	✓	✓	I	I	I
Measuring & targets	Targets	I	✓	✓	✓	✓
	Certification	I	I	I	I	I
	Traceability	I	I	I	I	I
	Commitment compliance	/	/	✓	✓	/
	Legal compliance	✓	✓	✓	✓	✓
Value chain engagement	SCE - Smallholders	I	✓	✓	✓	✓
	SCE - Direct suppliers	I	✓	✓	✓	I
	SCE - Beyond first-tier	I	✓	✓	X	X
	Landscape approaches	/	✓	✓	✓	✓
Beyond no-deforestation	Restoration	✓	✓	✓	✓	✓
Total KPIs fully achieved		5	10	10	10	7

Summary


Progress: Minerva has made progress achieving 67% (10) full KPIs in 2023, up from 33% (5) in 2020. Key areas such as long-term planning, legal compliance and restoration efforts have consistently performed well. However, critical aspects such as commitment, certification and traceability require more robust actions to meet current best practices.

Snapshot: Despite progress made, only 47% (7) of current best practice KPIs have been reached, with a need to strengthen commitments and set ambitious targets, ensuring they are achieved no later than 2025. Increasing the volume of DCF beef, expanding traceability to cover indirect suppliers, and improving engagement across the value chain are essential steps towards achieving a deforestation-free cattle supply chain by 2025.

Apart from disclosing information on cattle, Minerva did not report any soy consumption to CDP. Since the cattle industry is closely linked to soy, primarily through the animal feed supply chain, it is critical that Minerva ensures that the soy it sourced, both direct and embedded, is DCF and discloses this progress to the stakeholders.

Governance



-  **Board oversight:** Several key positions oversee forest-related issues at Minerva and they are integrated into relevant governance mechanisms. However, management-level responsibility lacks assessment and management of forest-related risks and opportunities, only meeting basic-level KPI.
-  **Policy:** In 2023, Minerva reported publicly available company-wide forest-related policies for its cattle products, incorporating no conversion of natural ecosystems, social, remediation and restoration elements, alongside a list of timebound milestones and targets, meeting full level requirements.
-  **Commitment:** Commitments remain stagnant. The company reported a public no-deforestation commitment covering 100% of its direct operations and supply chain, to be achieved by 2030. While the commitment includes aspects such as free, prior, informed consent (FPIC) and recognition of legal and customary land tenure rights, it lacks ambitions as well as missing several essential remediation, social, and restoration elements, meeting only the basic level KPI.

To meet the KPI

- Broaden management-level responsibility to encompass the assessment and management of forest-related risks and opportunities.
- Policies and commitments should incorporate social, remediation, and restoration elements, along with a list of time-bound milestones and targets.
- Target should be achieved no later than 2025 to meet the Accountability Framework and emerging Forest Land and Agriculture Science-Based Target.



Risk management




-  **Risk assessment:** In 2023, the company reported assessing forest-related risks as part of its established enterprise risk management framework. This assessment covered 100% of its direct operations and supply chains, considering risks up to six years ahead and assessing impacts on nature, social aspects and relevant stakeholders. However, the assessment did not include availability and quality of forest risk commodities leading to a decline from previous years' performance. While Minerva partially mapped its value chain, it did not provide detailed information on the assessment. As a result, Minerva only met the basic-level requirement in 2023.

To meet the KPI

- Assess availability and quality of forest risk commodities, impact of activity on the status of ecosystems and habitats, social impacts and on local communities over the longer term.
- Comprehensive details on organizational value chain mapping should be provided, encompassing tiers 1-4 suppliers and beyond. This should include the percentage of total suppliers covered, along with a list of facility names and locations for both own and supplier sites.



Measuring & targets

-  **Certification:** In 2023, the company reported that 16% of its total beef products were certified, with 9% certified Organic, meeting the basic level requirements.
-  **Traceability:** Minerva reported a traceability system tracing the origins of 80-100% of its cattle products up to the fattening farms in Brazil, Paraguay, Argentina, and Colombia, sourced from its direct suppliers, but due to exclusions, it only met the basic-level requirement.
-  **Commitment compliance:** To ensure suppliers' compliance, Minerva implements a robust system covering all relevant direct operations or supply chains, with 100% beef volume and suppliers in compliance, with various monitoring, reporting and verification (MRV) approaches adopted. 74% of its total beef volume was verified as DCF. However, detailed information about the deforestation/conversion footprint was not disclosed, meeting only the mid-level requirements.

To meet the KPI

- Provide comprehensive information on achieved traceability levels for both direct and indirect suppliers, without any exclusions.
- Ensure over 90% of full commodity production and consumption is verified as deforestation- and conversion-free, with the entire supply chain's deforestation/ conversion footprint monitored without exclusions. This can be achieved through procurement or use of deforestation-free certified products or monitoring of production units or sourcing areas.
- Disclose details on deforestation and conversion since the specified cutoff date or during the last five years.

Value chain engagement



• **Direct suppliers:** Minerva's direct supplier engagement is consistent, although it falls short of current best practices. The focus is on enhancing suppliers' capacity for responsible supply chains and deforestation-free practices through various means such as training, technical assistance and investments in pilot projects. However, Minerva did not report providing support for suppliers in setting their own no deforestation/conversion commitments and developing public time-bound action plans, meeting only the basic level requirements.



• **Beyond first-tier:** In 2023, Minerva reported no engagement beyond its first-tier suppliers, despite disclosing its engagement beyond the first tier in previous years, achieving full-level compliance in 2021 and 2022.



To meet the KPI

- ▶ Offer expanded support to direct suppliers, assisting them in setting their own commitments to prevent deforestation/conversion across all commodity operations and in developing public action plans with clear, time-bound milestones.
- ▶ Engagement with beyond first-tier suppliers offers holistic information on forest-related risks and opportunities within the company's supply chain, a fundamental step to manage forest-related issues.



Authors

Rini Setiawati
Senior Manager, Land

Sophie Mendes
Project Manager, Land

Tomasz Sawicki
Head of Land

Norma Mercedes Pedroza Arceo
Technical Manager, Land

Contributors

Thomas Maddox

Aidan Rowell

Viera Ukropcova

Maddy Bravery

Henry Fogarty

CDP Worldwide

4th Floor
60 Great Tower Street
London EC3R 5AZ
Tel: +44 (0) 20 3818 3900
forests@cdp.net
www.cdp.net



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