

Mighty Earth Soy & Cattle Deforestation Tracker & Scorecard Methodology 2024

Introduction

Mighty Earth's **Soy & Cattle Deforestation Monitor** is a digital platform that tracks deforestation and conversion linked to soy and cattle production in Brazil, while also evaluating companies' responses to deforestation or ecosystem conversion detected in their supply chains. Based on data from the *Rapid Response - Monitoring Deforestation in Brazilian Supply Chains* program, a collaboration between Mighty Earth, AidEnvironment and Repórter Brasil, along with AidEnvironment's [Real-time Deforestation Monitoring](#) reports, the platform aims to drive transparency and accountability, pushing soy traders and meatpackers to take urgent action against deforestation and ecosystem destruction.

The platform monitors seven of the largest soy exporters by volume in Brazil: Archer-Daniels-Midland Company (ADM), Amaggi, Bunge, Cargill, COFCO International, Louis Dreyfus Company (LDC), and ALZ - the joint venture between Amaggi, LDC and Zen-Noh. For cattle, JBS, Marfrig, and Minerva, the three largest meatpacking exporters in Brazil, are monitored.

This document outlines the methodology for two key components of the Monitor:

1. **Soy & Cattle Deforestation Tracker:** A summary of deforestation and ecosystem conversion linked to major soy traders and meatpackers, compiled by AidEnvironment and Mighty Earth between February 2022 to and July 2024.
2. **Soy & Cattle Company Scorecard:** Mighty Earth's evaluation of key soy traders and meatpackers based on their responses to deforestation cases submitted by Mighty Earth, as well as their Deforestation- and Conversion-free (DCF) commitments.

The Tracker and Scorecard build on Mighty Earth's [2021 Soy & Cattle Deforestation Tracker](#), which covered two years of deforestation monitoring data from March 2019 to March 2021.

1. Soy & Cattle Deforestation Tracker

The Soy & Cattle Deforestation Tracker displays the amount of deforestation and conversion linked to seven major soy traders and three major meatpackers in Brazil. The Tracker is based on deforestation cases documented in AidEnvironment's monthly [Real-time Deforestation Monitoring \(RDM\)](#) reports from February 2022 to June 2024 and Mighty Earth's [Rapid Response - Monitoring Deforestation in Brazilian Supply Chains](#) reports from December 2023 to December 2024. Each of these reports covers between five and twelve

case studies of recent deforestation and ecosystem conversion detected through satellite-based fire and deforestation alert systems, linked to soy and cattle supply chains in Brazil.

The dataset includes 172 deforestation cases and more than 300,000 hectares of deforestation and conversion in the Amazon, Cerrado and the Pantanal biomes in Brazil. All cases are visually confirmed using high-resolution satellite imagery. The analysis focuses on a selection of the most egregious cases of deforestation and conversion with the strongest supply chain links, rather than all properties identified through satellite monitoring.

Important Notes:

- Deforestation is defined as the loss of: natural forest as a result of conversion to agriculture or other non-forest land use; conversion to a plantation; or severe or sustained degradation (Source: AFi).
- Conversion is defined as the loss of a natural ecosystem as a result of its replacement with agriculture or another land use, or due to a profound and sustained change in a natural ecosystem's species composition, structure, or function (Source: AFi).
- Deforestation cases are identified using official deforestation, degradation and fire alert systems.
- The Tracker is based on selected cases of deforestation and conversion, capturing only a small fraction of the broader deforestation and conversion crisis across Brazil.
- The criteria for selecting deforestation and conversion cases vary between reports published by Mighty Earth and AidEnvironment. Factors such as the magnitude, timing, and location of native vegetation clearance, evidence of supply chain links, proximity to Indigenous Lands, and other case-specific information are considered.
- The hectares of deforestation shown in the Tracker include all cases linked to a company, regardless of whether the supply chain connection is classified as Low, Medium, or High certainty. The Tracker does factor in company responses that either confirm or deny supply chain links.
- The total amount of deforestation in the dataset is less than the sum of deforestation linked to the ten companies because often cases are connected to multiple companies.
- The Tracker links deforestation to cattle ranching for meatpackers and to soy cultivation for soy traders, even though many companies are involved in both cattle and soy supply chains.

For more detailed information on deforestation cases linked to soy and cattle companies, refer to Mighty Earth's [Rapid Response reports](#) and AidEnvironment's [RDM reports](#).

2. Soy & Cattle Company Scorecard

Mighty Earth's Soy & Cattle Company Scorecard evaluates 10 soy traders and meatpackers based on their responses to deforestation and conversion cases submitted through Mighty

Earth’s [Rapid Response – Monitoring Deforestation in Brazilian Supply Chains](#) program. The Scorecard also assesses companies’ deforestation and conversion-free commitments.

Companies are scored out of 100 points across four categories:

- **Responsiveness**
- **Transparency**
- **Action**
- **Deforestation and Conversion-Free (DCF) Policy**

The **Responsiveness, Transparency, and Action** categories are assessed based on the companies’ responses to Mighty Earth’s Right of Reply process as part of the *Rapid Response* program. Each category is worth up to 10 points, and scores are adjusted based on the number of deforestation cases linked to each company. The **Deforestation- and Conversion-Free Policy** category is assessed using publicly available reports or company policies.

Our scoring methodology includes a mapping to the [Accountability Framework initiative \(AFi\) principles](#) for each scoring category.

Scoring System

1) Responsiveness

This scoring category evaluates how companies respond to deforestation cases filed by Mighty Earth. Companies that provide clear, accurate, and detailed information about their connection to farms allegedly involved in deforestation or native vegetation conversion can score higher points.

Connection to AFI Core Principles

- Core Principle 5: Supply chain assessment and traceability

Responsiveness Scoring

Scoring criteria	Point Allocation
Company responds to Mighty Earth and acknowledges receipt of deforestation case	Per case (maximum of 1 point per case). Select all that apply: 0.25
Response states whether property is or is not an existing supplier	0.25

Response includes a timeframe for previous or current commercial relationship with property	0.25
Response indicates if the property is or is not part of the direct and/or indirect supply base	0.25
No response to Mighty Earth within the 'Right of Reply' timeframe	0

The total number of points is divided by the number of deforestation cases filed with each company, then multiplied by 10 to produce a final **Responsiveness Score** out of 10.

2) Transparency

This scoring category evaluates companies' transparency in handling deforestation and conversion cases filed with them, specifically by assessing whether they have submitted the cases to a public grievance log or tracker.

AFi Mapping

- Core Principle 4: Company systems to drive effective implementation

Transparency Scoring

Scoring criteria	Point Allocation
Deforestation or conversion case is disclosed in a public grievance log, ¹ within 1 month of grievance being filed	1
Deforestation or conversion case is disclosed in a public grievance log, after 1 month of grievance being filed	0.5
Deforestation or conversion case is not disclosed in a public grievance log	0

¹ At minimum, a public grievance log or tracker should include a description of the case filed, results of the investigation and measures taken by the company.

The total number of points is divided by the number of deforestation cases filed with each company, then multiplied by 10 to produce a final **Transparency Score** out of 10.

3) Action

This scoring category assesses the quality of action taken by companies in response to deforestation or conversion cases filed with them. If a company confirms that a farm involved in deforestation or conversion is - or has been - part of their direct or indirect supply chain, they are evaluated based on whether their internal monitoring systems had already detected the deforestation or conversion. If a company denies any current or recent supply chain connection, they are assessed on the evidence provided to support or verify their claim or previous actions taken to block the supplier. Companies are also evaluated against whether they have blocked or suspended the supplier, published them on a blocked supplier list, taken any remediation or restoration actions, or commit to not sourcing from the supplier until remediation or restoration has been implemented.

AFi Mapping

- Core Principle 5: Supply chain assessment and traceability
- Core Principle 6: Managing for supply chain compliance
- Core Principle 9: Remediation and environmental restoration

Action Scoring

If property is confirmed as a supplier:

Scoring criteria:	Point Allocation
Response indicates deforestation or conversion had already been identified by company's monitoring system	0.3
Response indicates the property and/or property owner has been blocked or suspended	0.3
Response outlines remediation or restoration action taken	0.2
Response indicates the supplier has been added to a public blocked supplier list	0.2

If property is not a (current) supplier:

Scoring criteria	Point Allocation Per case (maximum of 1 point per case). Select all that apply:
Response includes clear evidence or documentation to confirm a property is not part of their direct or indirect supply chain or a timeframe for past commercial relationship and reason for no longer sourcing from the property	0.3
Response indicates property and/or property owner has been blocked or added to a company suspended supplier list	0.3
Company commits to not sourcing directly or indirectly from this property and property owner in the future until remediation or restoration is implemented	0.2
Response indicates the supplier has been added to a public blocked supplier list	0.2

The total number of points is divided by the number of deforestation cases filed with each company, then multiplied by 10 to produce a final **Action Score** out of 10.

4) Deforestation- and Conversion-Free Policy

This scoring category evaluates the ambition and robustness of companies' public commitments to deforestation- and conversion-free practices, as detailed in their sustainability reports or deforestation policies. Companies are encouraged to adopt comprehensive policies that address deforestation, ecosystem conversion and degradation, covering both legal and illegal activities across all sourcing regions.

The goal should be to achieve no deforestation, conversion and degradation throughout the entire supply chain immediately, adhering to specific cut-off dates set in the Amazon (July 2008 for soy, in line with the Amazon Soy Moratorium, and October 2009 for cattle, in line with the G4 Cattle Agreement) and no later than 31 December 2020 for all other regions (consistent with the EU Deforestation Regulation, (EUDR)). Additionally, companies should commit to adhering to the principle of Free, Prior, and Informed Consent (FPIC) for affected local communities within their cattle or soy supply chains.

AFi Mapping

- Core Principle 1: Protection of forests and other natural ecosystems
- Core Principle 2: Respect for human rights
- Core Principle 3: Specification of commitments

Deforestation-and Conversion-Free Policy Scoring

Scoring Criteria		Point Allocation (Total possible points: 10)
Target date for global DCF commitment ² Select from:	31 December 2024 or 1 January 2025	3
	31 December 2025 or 2025 (exact date not specified)	2
	No target date or after 1 January 2026	0
Deforestation scope: Select from:	Deforestation-, conversion- and degradation-free	2
	Deforestation- & conversion-free	1
	Deforestation-free only	0.5
	Illegal deforestation only	0
Geographic scope Select from:	All sourcing regions	1
	Region-specific	0.5
	No scope	0
Cut-off date Select all that apply:	For all regions excluding the Amazon: 31 December 2020	1
	For the Amazon ³ July 2008 or earlier for Soy, and October 2009 for Cattle	1
	After 2020 or not specified	0
FPIC (Free, Prior, and Informed consent) Commitment Select from:	Commitment to ensure FPIC for affected local communities within cattle/soy supply chain	2
	No FPIC commitment	0

² In instances where companies have more than one deforestation/conversion target date, the commitment which has the broadest scope is assessed.

³ For this criterion, companies must clearly state the cut-off date in their own policies or reports. It is not sufficient to only mention the industry-wide commitments applicable to the Amazon, without specifying the cut-off date.

Definition of Terms

- **Conversion:** Loss of a natural ecosystem as a result of its replacement with agriculture or another land use, or due to a profound and sustained change in a natural ecosystem's species composition, structure, or function. (Source: AFi)
- **Cut-off date:** The date after which deforestation or conversion renders a given area or production unit non-compliant with no-deforestation or no-conversion commitments, policies, goals, targets, or other obligations. (Source: AFi)
- **Deforestation:** Loss of natural forest as a result of: conversion to agriculture or other non-forest land use; conversion to a plantation; or severe or sustained degradation (Source: AFi)
- **Degradation:** Changes within a natural ecosystem that significantly and negatively affect its species composition, structure, and/or function and reduce the ecosystem's capacity to supply products, support biodiversity, and/or deliver ecosystem services. (Source: AFi)
- **Free, Prior, and Informed consent (FPIC):** A collective human right of Indigenous peoples and local communities to give or withhold their informed consent prior to the commencement of any activity that may affect their rights, land, resources, territories, livelihoods, and food security. It is a right exercised through representatives of their own choosing and in a manner consistent with their own customs, values, and norms. (Source: AFi)
- **Grievance log:** A system for logging and monitoring all grievances received. Also referred to as a grievance database, tracker, or list.
- **Grievance mechanism:** Any routinised process through which grievances concerning business-related negative impacts to human rights or the environment can be raised and remedy can be sought. Grievance mechanisms may be state-based or non-state-based and they may be judicial or non-judicial. (Source: AFi)