



Unseen Risks, Untapped Potential: Why Land Data Matters for Your Business.



Introduction

For businesses that own, invest in, or source from land, exposure to nature-related risks is inevitable. Yet, the land sector remains one of the most complex and under-reported areas in corporate sustainability. As regulatory pressure mounts and expectations for transparency increase, companies must adopt data-driven strategies to future-proof their investments and supply chains.

FLINTpro empowers organizations with scientifically rigorous, high-resolution environmental data to assess carbon footprints, land-use changes, and biodiversity impacts. By integrating third-party-verified data with tailored analytics, **we transform complexity into clarity**—enabling companies to mitigate risk, seize opportunities, and lead in sustainable finance.

At FLINTpro, we curate high-quality input data for our proprietary models to deliver actionable insights that drive measurable impact. Our platform enables organizations like yours to:

- **Quantify Scope 3 emissions** with location-specific accuracy, tracking agricultural suppliers down to the country, state, and individual plot level.
- **Assess and disclose financed emissions liabilities** linked to loans, investments, and underwriting decisions, ensuring compliance with evolving reporting standards.
- **Evaluate carbon project viability and returns**, optimizing financing strategies and maximizing impact for sustainable development initiatives.
- **Identify deforestation risks across supply chains**, enabling proactive sourcing decisions that align with sustainability commitments.
- **Set and achieve net-zero targets** with tailored Scope 1 and 3 emissions assessments, ensuring credible, science-based pathways to decarbonization.
- **Benchmark biodiversity dependencies and risks**, integrating land-use and ecological data to support nature-positive strategies.

By leveraging FLINTpro's expertise, companies gain clarity on their environmental footprint, enhance corporate resilience, and position themselves as leaders in sustainable business transformation.



“ FLINTpro operates at scale—we can run analyses from individual fields to entire continents, providing a consistent view of a complete portfolio.”

**—DR. ROB WATERWORTH, FLINTPRO CO-FOUNDER,
CHIEF SCIENCE & INNOVATION OFFICER**

Why a Tailored Approach Matters

A one-size-fits-all model cannot adequately capture the myriad nuances of land-based emissions, biodiversity dependencies, and nature-related financial risk. Organizations must consider regional differences, land-use history, and specific business goals when designing strategies for land-based emissions reduction and nature-positive outcomes.

Effective sustainability strategies require:

- **Transparent, explainable methodologies** that provide clarity on emissions, biodiversity, and deforestation risks—ensuring regulatory compliance and reducing reputational exposure.
- **Granular, location-specific data** rather than generic national or sector-wide averages, allowing for precise intervention and optimization of sustainability efforts.
- **Scalability and adaptability** to accommodate growing regulatory requirements and evolving best practices.
- **Actionable insights** that align with reporting frameworks such as the CSRD, ESRS, and GHG-P Land Sector and Removals Guidance.

FLINTpro's technology integrates diverse datasets with proprietary modeling to meet these criteria—delivering the specificity and credibility that sustainability leaders require.

INPUTS	PROCESSING		INSIGHTS	
<p>Identify your land</p> <p>Do you know the basics of:</p> <p>Where the land is:</p> <ul style="list-style-type: none"> • The country? • The region? • The plot of land? • The polygons associated with a farm? <p>If needed, the advanced inputs:</p> <ul style="list-style-type: none"> • The commodity that is produced: cattle, coffee, cocoa, palm oil, etc. • The production levels and sourced amounts • The land management practices: soils, tilling, etc. 	<p>Curate the Data</p> <p>Do you just need open access data?</p> <p>Or does your challenge require our specialized partner data?</p> <ul style="list-style-type: none"> • Remote sensing • Climate (rainfall, temperature, evaporation) • Soil carbon and other ground-based data • Ground-based data or land conditions • Land management 	<p>Configure the Model</p> <p>We answer your questions with careful application of our library of land and carbon models:</p> <ul style="list-style-type: none"> • Deforestation • Biodiversity • Forest, pasture, and soil carbon • Regulations and frameworks (CSRD, TNFD, EUDR, GHG Protocol) 	<p>Simulation & Analysis</p> <p>Our technology provides:</p> <ul style="list-style-type: none"> • Simulations for spatial outputs • Historical and potential future scenario analysis • QA/QC to validate data results • Map generation • Metrics and benchmarks • Method descriptions • Limitations and bias review 	<p>Deliverables</p> <p>Our off-the-shelf, interactive dashboards:</p> <ul style="list-style-type: none"> • Deforestation • Land-use change and agricultural emissions • Biodiversity impact potential and dependency risk <p>Our customized reports and outputs (PPT, PDF, dashboard):</p> <ul style="list-style-type: none"> • Science-reviewed interpretation of the results • Intervention or mitigation recommendations • Risk management outcomes • Conversion risks for individual suppliers

Five Ways to Leverage Land-Sector Data for Smarter Decision Making

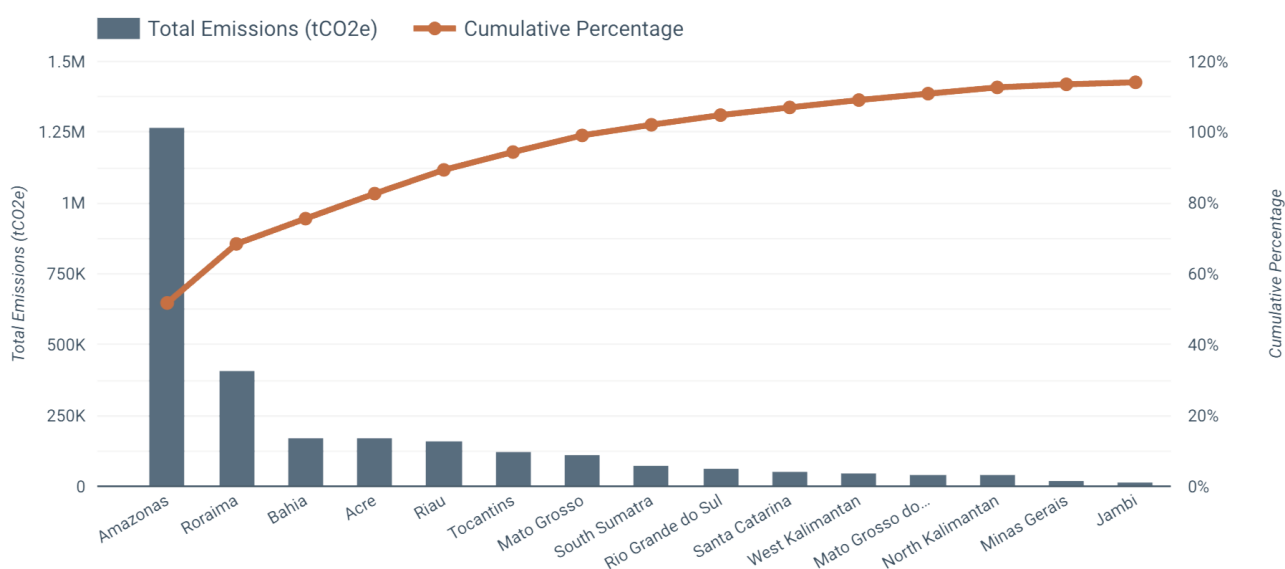
Scenario 1: Scope 3 Supply Chain Data

The Problem: Many food and consumer packaged goods (CPG) companies struggle to accurately measure Scope 3 emissions, the largest yet most opaque portion of their carbon footprint. Relying on broad national averages fails to account for supplier-level improvements, leading to misaligned reporting and missed opportunities for emissions reductions.

The Solution: FLINTpro's sub-national land-use change models adapt to the level of detail available on suppliers, providing emissions intensity per unit of production. Covering 170 commodities across all countries, our data enables companies to:

- Benchmark supply chains against alternative sourcing options.
- Identify the highest-impact traceability improvements.
- Minimize costly disruptions while maximizing sustainability benefits.

Impact: One global food company using FLINTpro's country-specific emissions factors reduced its reported Scope 3 land-use change emissions by **14%** versus the global average emission factors previously used. And targeted traceability improvements in just six key countries could decrease emissions by **55%**—resulting in multimillion-dollar annual savings. The company is steadily working to obtain plot-level traceability, working with suppliers to reduce deforestation. Using FLINTpro's plot-level, direct-land-use-change models could nearly eliminate new emissions from deforestation events.

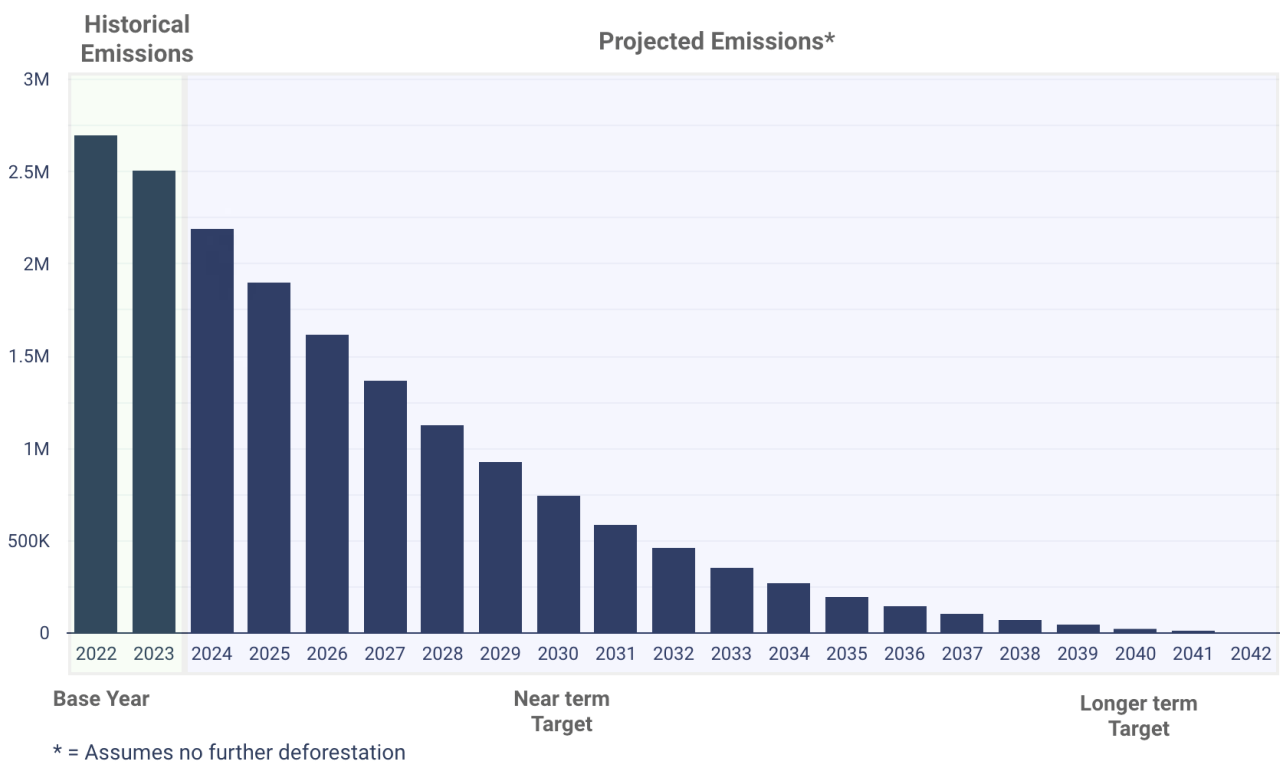


Scenario 2: Financed Emissions in Agricultural Lending

The Problem: Financial institutions lending to agricultural businesses must account for land-related emissions under Scope 3, Category 15. Without precise modeling, these emissions are difficult to quantify and mitigate.

The Solution: FLINTpro's forest carbon model tracks reforestation, deforestation, and biomass changes at high resolution. Our methodologies differentiate human-induced changes from natural events like wildfires—ensuring accuracy and regulatory alignment.

Impact: By integrating FLINTpro's assessment, a financial institution with more than 100,000 areas of interest covering 60 million hectares of land reduced its estimated financed emissions liabilities by **30% overall**, and by **70% in some regions**, achieving more precise and defensible reporting.



“The framework we use is applicable for all financial institutions, no matter where they are in their climate journey. By providing a system that offers tailored information, our users focus on decisions and policies—rather than being overwhelmed in data.”

—GEOFF ROBERTS, FLINTPRO HEAD OF APAC BUSINESS DEVELOPMENT

Scenario 3: Sourcing from Deforested Land

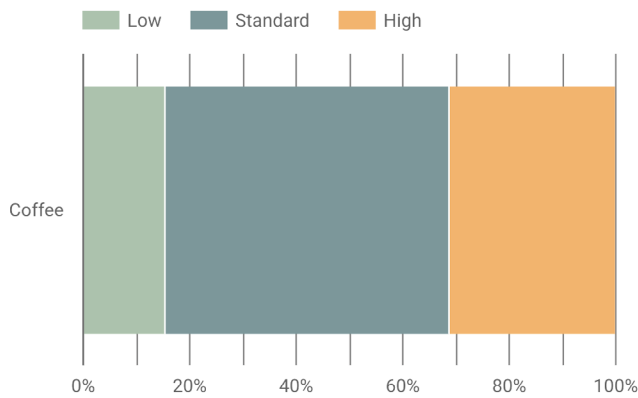
The Problem: Food and CPG companies must avoid sourcing from recently deforested land to meet regulatory and corporate sustainability commitments. However, supply-chain mapping is often incomplete, making risk assessment difficult.

The Solution: FLINTpro overlays multiple data streams—including historical vegetation cover, fire history, and land attribution—to assess deforestation risks at the regional level. This enables targeted action where the greatest risks exist.

Impact: A multinational food company used FLINTpro’s analysis to identify **1,500 high-risk sourcing regions** that had previously been categorized as low risk. This allowed them to implement focused engagement strategies with minimal disruption to revenue.

Risk Rating

Indicate the likelihood of liability for deforestation at admin 1 level.



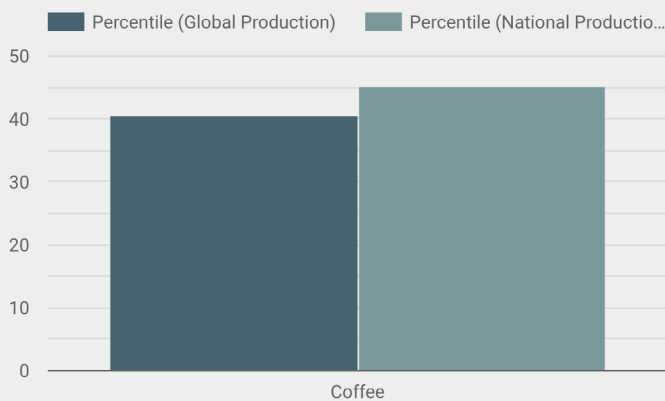
Commodity-Linked Deforestation Exposure

Indicate potential deforestation liability to support or expand commodity’s production since 2020.



Benchmarks

Portfolio Averages: Global 40.45 National 45.1



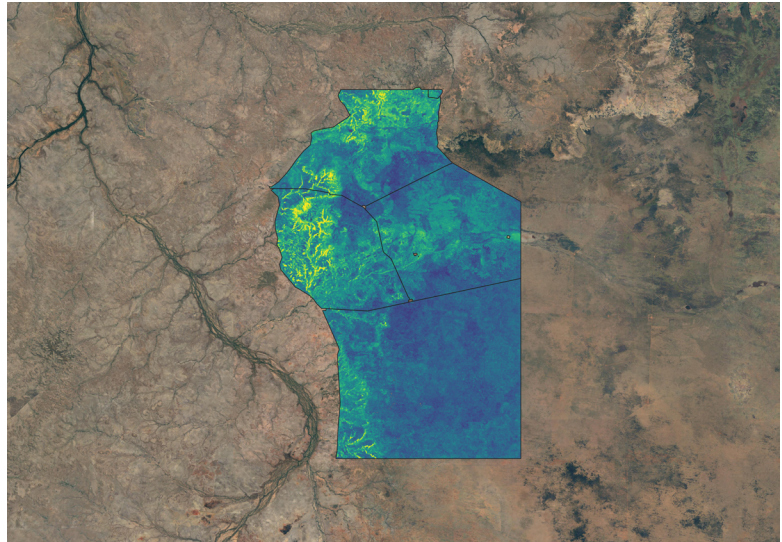
The benchmarks, measured against global or national production of the given commodity, indicate where the deforestation intensity for the portfolio sits relative to overall production. This allows for a straightforward way to do sector-wide comparison and assess the relative impact of your portfolio compared with other users of the commodity.

Interpretation: Score of 75 = potential deforestation exposure higher than or equal to 75% of global production of the given commodity.

Scenario 4: Measuring Regenerative Agriculture Benefits

The Problem: Many corporations encourage regenerative farming practices but lack the tools to measure their impact on soil-carbon sequestration.

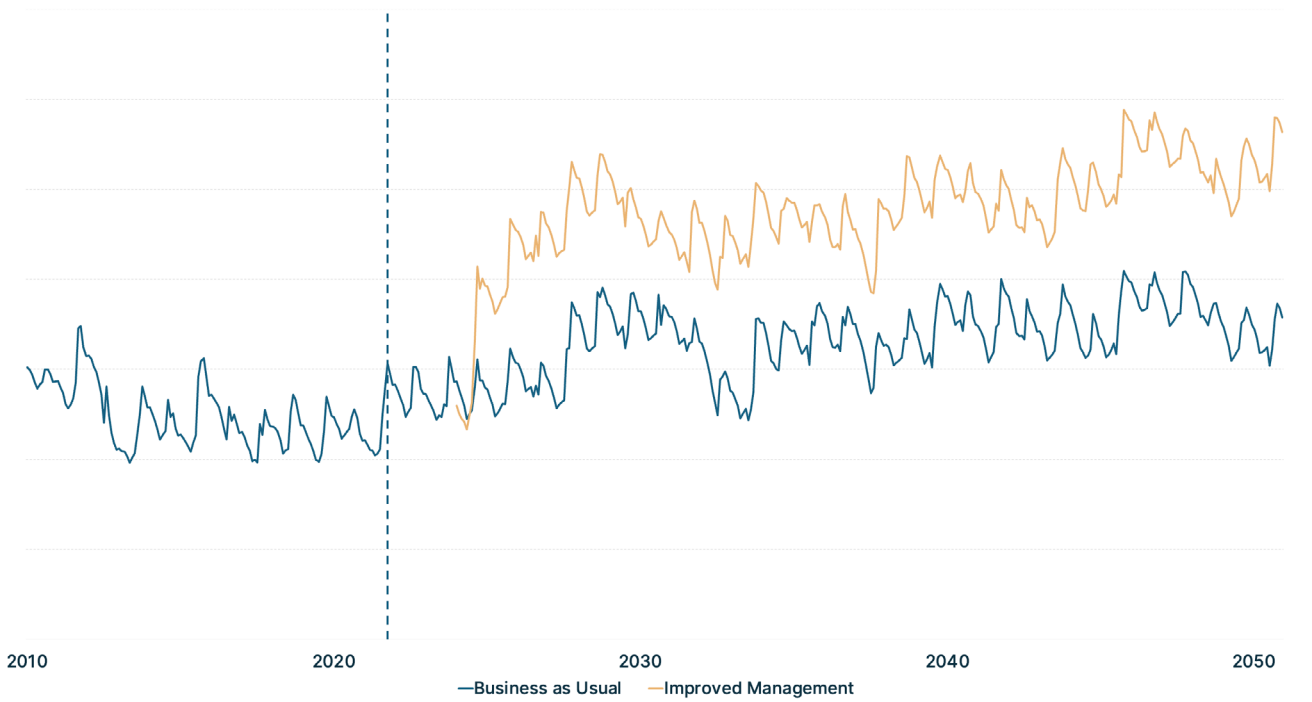
The Solution: FLINTpro's implementation of the ROTH-C model incorporates farm-specific management data to accurately quantify soil-carbon dynamics.



This allows companies to:

- Incentivize farmers for practices that maximize carbon sequestration.
- Align with insetting strategies to offset corporate emissions.
- Meet regulatory reporting requirements with precision.

Impact: One company identified emissions reductions of **3%** across 300 farms, translating into savings of **45,000 tCO₂ (\$225K)**—with plans to scale across new commodities and geographies.



Scenario 5: Quantifying Biodiversity Impact

The Problem: Biodiversity is emerging as a critical ESG factor, but standardized, reliable measurement remains elusive.

The Solution: FLINTpro's biodiversity module integrates remote sensing and field data to create holistic, globally consistent biodiversity scores. These scores support:

- Benchmarking and prioritization of biodiversity initiatives.
- Compliance with TNFD and CSRD disclosure requirements.
- Risk assessment for land-intensive operations.

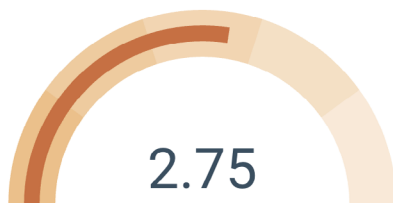
Impact: FLINTpro helped telecom giant Telstra assess **20,000 assets and 90,000 data points**, identifying 1,000 high-fire-risk sites and 200 high-biodiversity-risk sites. This informed strategic conservation investments announced at the Global Nature Positive Summit.

Portfolio Overview

The overarching state-of-nature of your portfolio captured by two scores:

Impact Potential

Measures current biological conditions and reveals the potential for loss of natural capital.



Dependency Risk

Measures the state of the ecosystem services and reveals the potential for decreased availability of services on which organizational activities may depend.



Core Metrics

The impact potential and dependency scores comprise these core metrics. Here's how your portfolio performs for each metric.

Impact Metrics

Biological Importance

2.74

Red List Risk

5

Species Density

2.84

Land Use

0.4

Dependency Metrics

Water Risk

1.6

Invasive Species

4.41

Pollinators

2.23

The supporting impact potential and dependency risk metrics of your portfolio are calculated using weighted average with asset area as the weighting factor. Outputs are scaled to FLINTpro's continuous 0-5 system.

Choosing the Right Data Partner

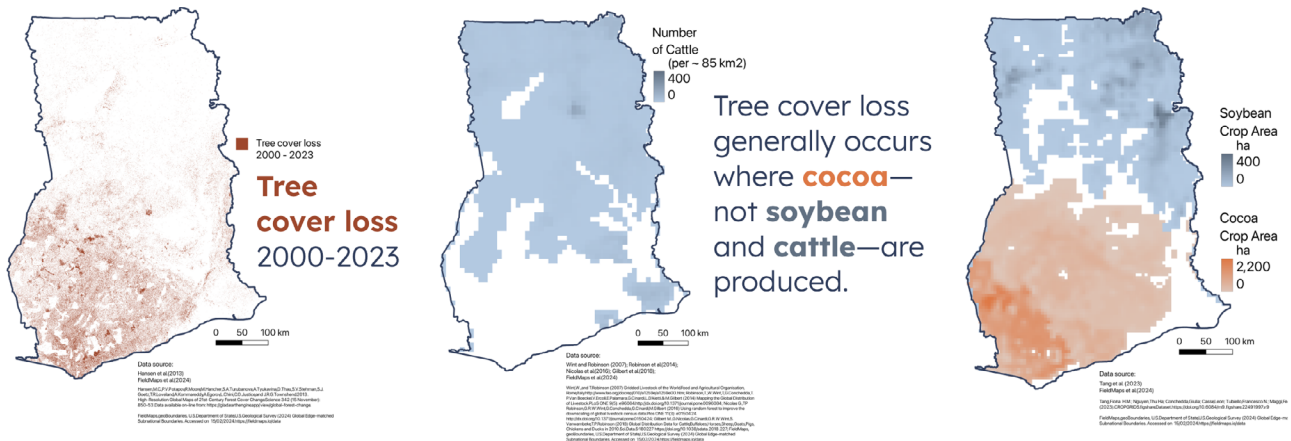
To drive real sustainability impact, companies need data solutions that are:

- **Transparent** – avoiding black-box methodologies and ensuring regulatory confidence.
- **Granular** – leveraging precise, location-specific data instead of generic estimates.
- **Scalable** – evolving with regulatory changes and organizational growth.
- **Actionable** – providing insights that drive measurable progress toward sustainability goals.

The land sector’s complexity should not be a barrier to action. Businesses that harness data-driven solutions gain a competitive edge while advancing global climate and biodiversity objectives.

Typical land use change emissions methods dramatically distort commodity emissions.

	EF (in tCO2e) at country level	EF with geospatial sLUC
Cocoa	16.5 per tonne cocoa	23.5 per tonne cocoa
Soybean	5.4 per tonne soybean	0.2 per tonne soybean
Cattle	30.0 per head cattle	2.0 per head cattle



“ The time to act is now. By partnering with FLINTpro, organizations can transform nature-related risks into strategic opportunities—minimizing exposure, maximizing impact, and leading the way in sustainable business transformation.”

—TINA MORRIS, FLINTPRO CHIEF EXECUTIVE OFFICER

About FLINTpro

Advanced Analytics for Nature-Related Risk Management

FLINTpro is a global leader in land-use and sustainability analytics, specializing in nature-related risk assessments for investors, landowners, and corporations. Our proprietary platform integrates cutting-edge environmental science with transparent, explainable models—delivering credible insights aligned with leading frameworks such as the CSRD, GHG Protocol, and TNFD.

Steeped in decades of forestry and carbon-accounting knowledge, FLINTpro has built an unparalleled reputation. We're composed of lead authors of the IPCC and GHG Protocol—expert scientists who have designed and developed leading technology for assessing risks, implementing mitigation strategies, and meeting regulatory standards.

FLINTpro offers the transparent, tested methodologies you need to meet nature-positive commitments and understand the true value of your land.

Get started at [FLINT.com/contact](https://flint.com/contact)