

AI-Driven Deforestation Monitoring

ANMD-MRS18-179 · Environmental AI Applications

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US\$

WHY THIS REPORT

AI-driven deforestation monitoring detects forest loss in near-real-time — combining optical and SAR Earth observation with AI change-detection, alerting and supply-chain traceability. Driven by the EU Deforestation Regulation and carbon-MRV needs, it turns satellite data into enforcement-grade deforestation intelligence. This decision-grade study sizes the global market three ways — value, deployments and area monitored (hectares) — across data source, function and application, across seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report's backbone, not an afterthought. Deforestation monitoring protects forests, biodiversity and carbon stocks and enforces supply-chain accountability, while raising data-sovereignty and attribution questions.

Mapped Sustainable Development Goals:

SDG 15 Life on Land	SDG 13 Climate Action	SDG 12 Responsible Consumption & Production
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Measurable sustainability outcomes assessed:

- Rapid deforestation alerts and supply-chain compliance
- Carbon-credit MRV and conservation enforcement
- Attribution and alert integrity as a material risk
- Data-sovereignty, indigenous rights and enforcement gaps assessed

Framework alignment: Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

WHAT'S INSIDE AT A GLANCE

53 Chapters	9 Report Parts	7 Regions Covered	40+ Country Markets
2025–32 Forecast Horizon	4 Forward Scenarios	25+ Companies Profiled	3 SDGs Mapped

REPORT COVERAGE

Geographic scope: North America, Europe, Asia Pacific, Latin America, Africa, Middle East and Rest of World — with named country intelligence. Europe leads on regulation; North America scales on supply chains; Latin America is the monitoring frontier; other regions assessed on their own merits.

- Near-real-time forest-loss detection and alerting
- Optical and SAR EO with AI change-detection and traceability
- Enforcement-grade intelligence for EUDR and carbon MRV
- Attribution, data-sovereignty and enforcement gaps as risks

MARKET OVERVIEW

From periodic map to real-time alert — where cloud-penetrating SAR plus AI delivers the all-weather alerts optical-only monitoring cannot.

Deforestation monitoring is moving from periodic mapping to real-time, regulation-driving, AI-powered alerting. Demand is driven by the EU Deforestation Regulation, carbon-MRV and supply-chain compliance across Europe, North America and Latin America. The market is read three ways — value, deployments and area monitored — and forecast under four scenarios, each region reported separately.

- **Europe leads on regulation** — Germany, France and the Netherlands, anchored by the EU Deforestation Regulation (EUDR) driving commodity-supply-chain monitoring demand
- **North America scales on supply chains** — the United States and Canada, supported by corporate commitments, carbon-MRV and leading EO-analytics providers
- **Real-time SAR alerting is the differentiator** — cloud-penetrating radar plus AI delivers the rapid, all-weather alerts optical-only monitoring cannot
- **Data source segments the value** — optical EO, SAR, AI change-detection and traceability designs, each with distinct economics

REGIONAL OUTLOOK

Across seven reporting regions, the report separates leading markets from high-growth and emerging ones — each profiled in full rather than aggregated into Rest of World.

Region	Stage	Lead Country Markets & Drivers
Europe	Regulation leader	Germany, France, UK, Netherlands — environmental rules, CSRD, climate funding
North America	Supply-chain-driven	United States, Canada — regulation, funding, tech-vendor base
Latin America	Monitoring frontier	Brazil, Colombia — Amazon deforestation, enforcement
Asia Pacific	High-growth	Indonesia, Malaysia — palm-oil supply-chain monitoring
Africa	Conservation hub	DRC, Congo Basin — forest monitoring, conservation
Middle East	Emerging	Saudi Arabia, UAE — environmental strategy, sovereign investment

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• EU Deforestation Regulation (EUDR) • Supply-chain & commodity compliance • Carbon-MRV & REDD+ demand • Optical-SAR & AI change-detection • Conservation & enforcement needs	• Cloud-cover & optical-data gaps • Attribution & traceability complexity • Alert-accuracy & false-positive risk • Ground-enforcement & action gaps • Data-sovereignty & access issues

SEGMENTATION SNAPSHOT

By Data Source	Optical EO · SAR EO · AI change-detection · alerting · traceability
By Function	Supply-chain compliance · carbon MRV · enforcement · conservation
By Application	Supply-chain compliance · carbon MRV · enforcement · conservation
By End User	Commodity traders · brands · regulators · NGOs · governments
By Business Model	Hardware sale · SaaS · data · managed service
By Scale	Pilot · deployment · enterprise / national-scale

TECHNOLOGY & APPLICATION FINDINGS

Where the category is differentiating fastest — the technology and application fronts that separate leaders from followers:

- **Supply-chain compliance** — traceability platforms link commodities to deforestation-free origins for EUDR
- **Carbon MRV** — change-detection verifies forest-carbon projects and REDD+ credits
- **Enforcement & conservation** — real-time alerts support government and NGO anti-deforestation action

TABLE OF CONTENTS — PARTS & CHAPTERS

The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

Part I — Report Foundation, Discovery and Strategic Intelligence

- › Chapter 1. Scope, Methodology and Report Architecture
- › Chapter 2. Industry Discovery Summary — AI-Driven Deforestation Monitoring
- › Chapter 3. Executive Intelligence and Decision Dashboard
- › Chapter 4. Strategic Findings, Materiality and Investment Verdict Preview

Part II — Market Intelligence, Sizing, Forecasting and Segmentation

- › Chapter 5. Industry Overview and Market Evolution
- › Chapter 6. Market Dynamics
- › Chapter 7. Global Market Size and Forecast, 2020–2032
- › Chapter 8. Market Segmentation Analysis
- › Chapter 9. End-User and Demand-Side Intelligence
- › Chapter 10. Pricing, Cost and Commercial Model Intelligence

Part III — Regional and Country Intelligence

- › Chapter 11. Global Regional Intelligence Framework
- › Chapter 12. North America Market Intelligence
- › Chapter 13. Europe Market Intelligence
- › Chapter 14. Asia Pacific Market Intelligence
- › Chapter 15. Latin America Market Intelligence
- › Chapter 16. Africa Market Intelligence
- › Chapter 17. Middle East Market Intelligence
- › Chapter 18. Rest of World Market Intelligence

Part IV — Technology, Innovation and Category-Specific Intelligence

- › Chapter 19. Technology Landscape and Architecture
- › Chapter 20. Emerging and Next-Generation Technology Intelligence
- › Chapter 21. Category-Specific Intelligence Module
- › Chapter 22. Research, Innovation and Funding Landscape

Part V — Company, Competition, Patent and Project Intelligence

- › Chapter 23. Competitive Landscape
- › Chapter 24. Company Profiles
- › Chapter 25. Mergers, Acquisitions, Partnerships and Ecosystem Intelligence
- › Chapter 26. Patent Landscape and Intellectual Property Intelligence
- › Chapter 27. Project, Deployment and Case-Study Intelligence

Part VI — Sustainability, ESG, SDG, Climate and Natural-Capital Intelligence

- › Chapter 28. Sustainability Intelligence Suite
- › Chapter 29. ESG Intelligence and Double Materiality
- › Chapter 30. ESG and Sustainability Framework Alignment
- › Chapter 31. SDG Intelligence
- › Chapter 32. Carbon, Net-Zero and Climate-Mitigation Intelligence
- › Chapter 33. Water, Biodiversity and Natural-Capital Intelligence
- › Chapter 34. Circular Economy and Resource-Security Intelligence
- › Chapter 35. Social Impact, Human Capital and Community Intelligence
- › Chapter 36. Climate Risk, Adaptation and Resilience Intelligence

Part VII — Supply Chain, Policy, Legal, Economics and Finance

- › Chapter 37. Value Chain, Supply Chain and Geopolitical Intelligence
- › Chapter 38. Policy, Regulation and Incentive Intelligence
- › Chapter 39. Legal, Contracting and Risk-Allocation Intelligence
- › Chapter 40. Unit Economics, CAPEX, OPEX and Return Analysis
- › Chapter 41. Investment, Sustainable Finance and Bankability Intelligence

Part VIII — Scenario, Future Intelligence and Final Due Diligence Verdict

- › Chapter 42. Scenario Analysis and Future Intelligence
- › Chapter 43. Sustainability Due Diligence Framework and Data-Room Index
- › Chapter 44. Risk Register, RAG Rating and Anti-Greenwashing Screen
- › Chapter 45. Bottom-Line Verdict and Strategic Recommendations
- › Chapter 46. Implementation Roadmap and Stakeholder Playbooks

Part IX — Annexes, Directories and Reference Material

- › Chapter 47. Methodology Annex
- › Chapter 48. Corporate Directory and Company Intelligence Annex
- › Chapter 49. Patent Directory and Patent Intelligence Annex
- › Chapter 50. Project Intelligence Annex
- › Chapter 51. Forecast Annex
- › Chapter 52. Sustainability KPI Annex
- › Chapter 53. Reference Annexes

COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans open-data forest platforms, commercial EO-analytics specialists, and satellite-constellation and traceability providers. Deal activity — EUDR-driven contracts, supply-chain partnerships and EO-data deals — signals a market consolidating around real-time, compliance-grade monitoring.

Representative players profiled in the full report:

Global Forest Watch (World Resources Institute) · Satelligence B.V. · Descartes Labs, Inc. · Planet Labs PBC · Space Intelligence Ltd. · and 20+ further profiled players.

Investment intelligence: venture, infrastructure, development, climate and blended finance, green bonds and sustainability-linked loans — culminating in a bankability assessment and a conditional investment view.

KEY QUESTIONS THIS REPORT ANSWERS

- How large is the global deforestation monitoring market, and how fast will it grow to 2032?
- Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- Which technologies and methods reshape the addressable market and the cost curve?
- Who leads, and where is the competitive and patent white space?
- Is the investment case bankable — and under what conditions?
- How does the category align with the SDGs and disclosure regulation?

WHY ANMD — THE DIFFERENCE

Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG, climate and natural-capital intelligence and a decision-ready bankability view in a single architecture.

- **Triangulated sizing** — every market read three ways so value, volume and the physical-unit views reconcile rather than conflict.
- **Region-honest forecasting** — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- **Integrated evidence base** — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- **No-fabrication discipline** — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- **Anti-greenwashing rigour** — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- **Decision-first structure** — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear, conditional investment view.

WHO SHOULD BUY THIS REPORT

Commodity traders, brands, regulators, NGOs, governments, investors and policymakers, and strategic corporate planners and decision-makers.

Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at www.anewmarketdynamics.com · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at www.anewmarketdynamics.com. The full detailed table of contents will be sent directly to your registered company email address.