GWF
GEOSPATIAL WORLD FORUM
CONFERENCE & TECH SHOW

CLIMATE AND RESILIENCE AND DISASTER MANAGEMENT SEMINAR -2026

Panel Discussion: Disaster Management in a Multi-Hazard World

Beyond Compliance: Building a Trusted Geospatial Intelligence Backbone for Deforestation-Free and Hazard-Resilient Supply Chains

MOSAIX

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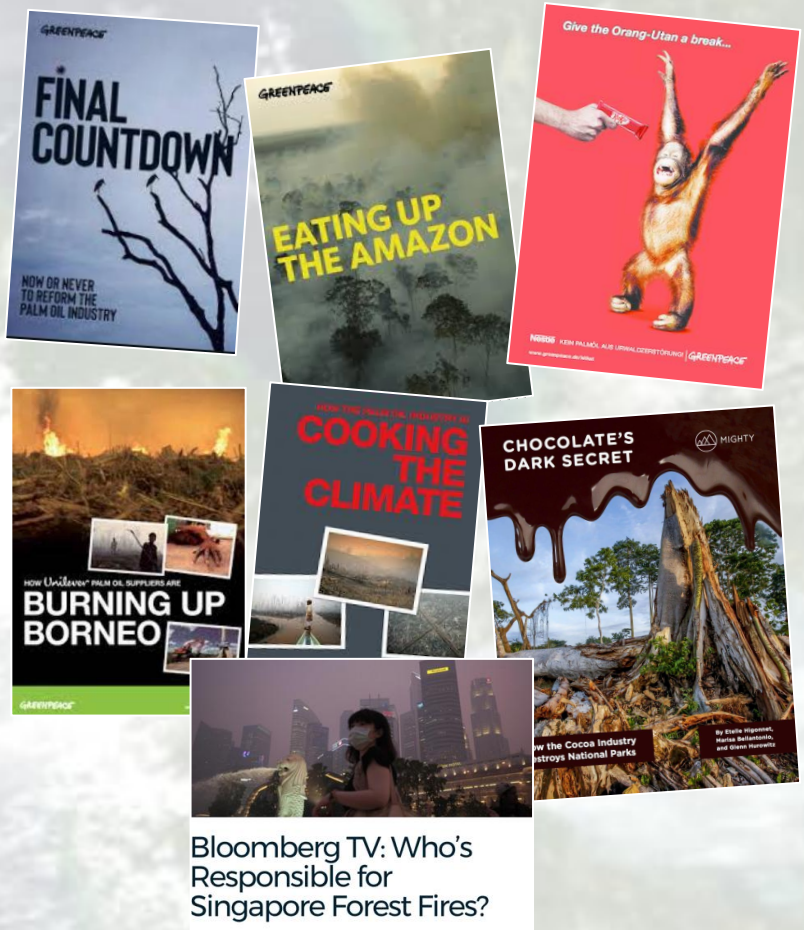
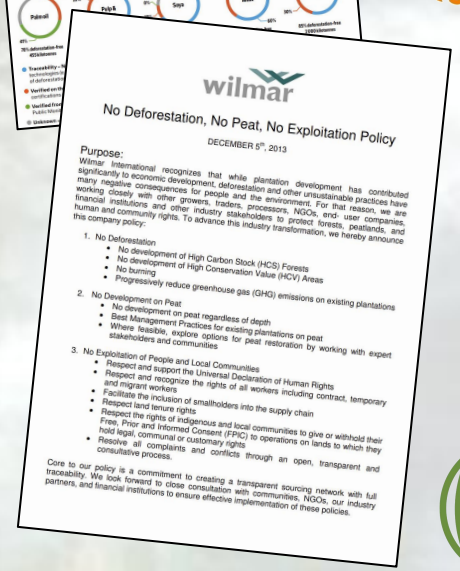
How it got started

Air pollution over Southeast Asia in October 1997

From Hazard to Action: How Deforestation-Free Commitments Began





PORTAL DA Moratória da Soja

CERTIFIED SUSTAINABLE PALM OIL RSPO

The Consumer Goods FORUM

Forest Positive

HCSA HIGH CARBON STOCK APPROACH

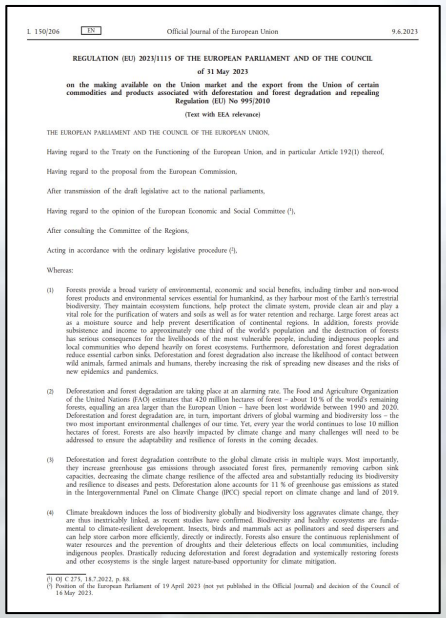
TFA 2020

Amsterdam Declarations Partnership
Towards deforestation-free sustainable commodities

Cocoa & Forests Initiative

Accountability Framework initiative

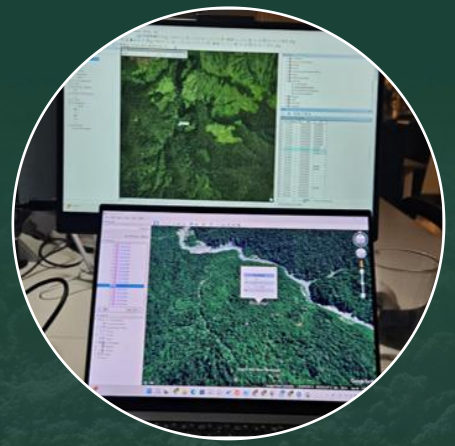
European Union



From crisis → voluntary standards → corporate commitments → global frameworks → binding regulation

→

Key Geospatial role for Deforestation-Free Compliance Support



- Forest cover baseline
- Deforestation and degradation analysis

Geolocation of assets

- Legal ownership of landuse
- Indigenous and community rights

Supply chain & traceability

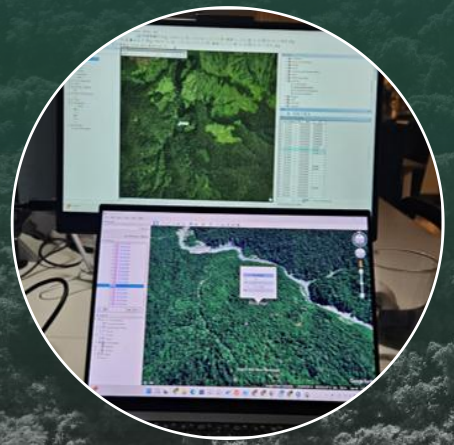
Why Geospatial Alone Is Not Enough for Deforestation-Free Compliance

- **Forest cover baseline:** Existing forestcover maps use inconsistent definitions and thresholds, creating unreliable baselines.
- **Deforestation and degradation analysis:** Satellite based change detection is often misaligned with local landuse contexts and cutoff dates.

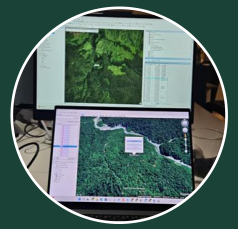
Geolocation of assets: Many smallholder plots and facilities lack accurate, consistent, or updated spatial boundaries.

- **Legal ownership of landuse map:** Legal landuse rights are often not mapped, not georeferenced, or not shared,
- **Indigenous and community rights** are mostly missing from official geospatial records.

Supply chain & traceability (customer → plot production): Spatial traceability rarely reaches from consumer down to individual production plots.



Geospatial Builds the Backbone, Real Transformation Happens on the Ground



Forest cover baseline:

Harmonized, multisource EO-based baselines with standardized definitions can serve as a unified, policy- ready forest- cover reference layer.

Deforestation and degradation analysis:

Machine-learning models trained on historical satellite time- series can detect deforestation and degradation at scale, with automated change alerts aligned to cut- off dates.

Geolocation of assets (plots & facilities):

High-resolution satellite imagery + AI- based parcel mapping can automatically detect and digitize smallholder and facility boundaries, closing the "missing plots" gap.

Legal ownership of landuse map:

Geospatial platforms that integrate cadastral, concession, and permit data into a single GIS layer can align legal rights with physical land units, improving comparability with deforestation alerts.

Community rights & Indigenous peoples' areas:

Community led mapping with participatory GIS, drones, and AI- assisted interpretation of satellite imagery can formalize and spatialize customary and Indigenous land rights.

Supply chain & traceability (customer → plot) :

Digital traceability platforms (blockchain style databases linked to geo-coordinates and satellite monitoring) can connect each product batch to its exact plot, enabling end-toe-nd spatial traceability.

Ground verfication for accurate mapping and evidence support

Stekeholder engagament in every level of supplychain actors

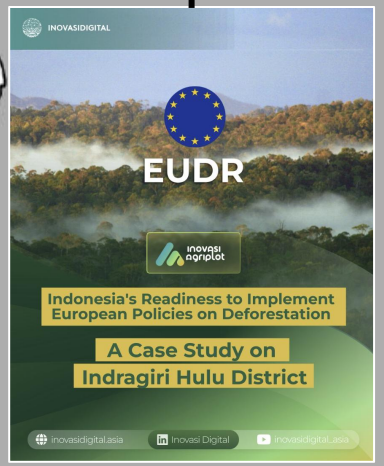
Support community land tenure registration and legalization

Study cases

Ecuador's Cocoa Sector and the EUDR: Key Findings, Risks, and What Comes Next

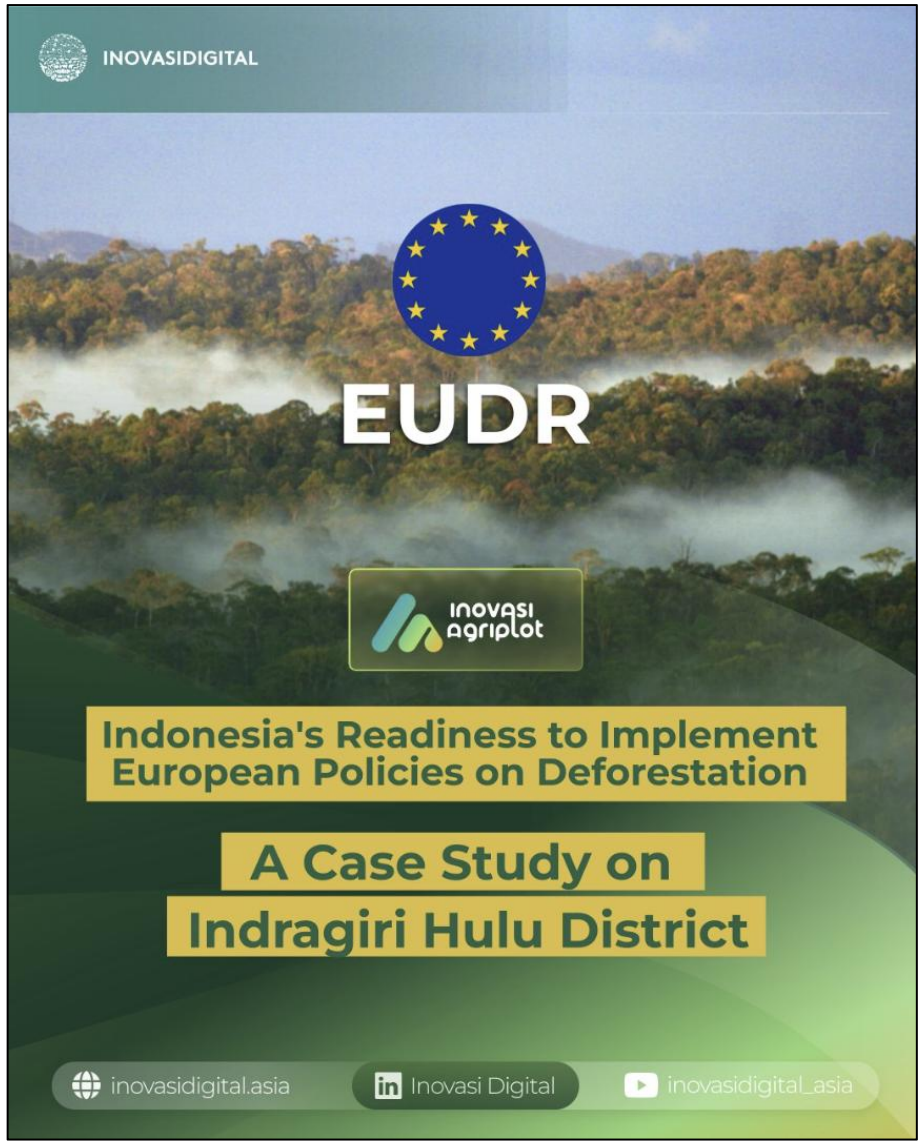
Gran Chaco Soy Traceability: Challenges, Assessment, and the Role of Technology in Ensuring EUDR Compliance

Implementing EUDR in the Soy Supply Chain: The Case of Mato Grosso



Kopi Fabriek and MosaiX: Strengthening Indonesia's Coffee in the EUDR Era

Palm Oil



Key Summary

- About 49% of oil palm plantation areas in Indragiri Hulu are not compliant with EUDR requirements, mainly because they overlap with government-designated forest areas.
- This non-compliance creates serious risks across the supply chain, including:
    - Ineligibility to export to the EU market
    - Potential legal sanctions in Indonesia
    - Loss of trust from buyers and partners
    - Rejection of shipments at EU borders
    - Loss of international trade contracts
    - Financial losses, especially affecting smallholders

Core Insight

- Even though a significant portion of land is already compliant, nearly half of the supply base is at risk, not necessarily due to deforestation alone, but largely due to legal and spatial land status issues.
- EUDR readiness is less about detecting deforestation, and more about resolving land legality, tenure clarity, and spatial alignment at scale.

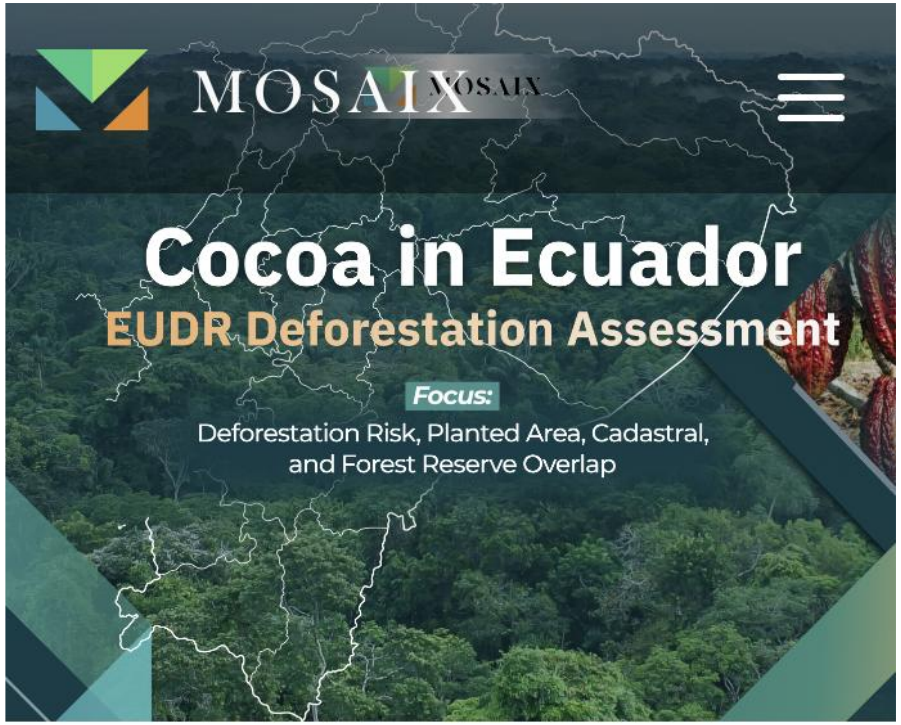
Coffee

Kopi Fabriek and MosaiX: Strengthening Indonesia's Coffee in the EUDR Era

Key Summary

- 1. Trust first
  - Initial farmer resistance → gradual acceptance
  - 👉Adoption is trust-driven
- 2. Identity unlocks compliance
  - Farmer cards (land, geo, legality)
  - 👉Compliance starts with formal identity
- 3. Group-based traceability
  - Cooperatives structure data & supply chains
  - 👉Traceability is collective, not individual
- 4. Tech as enabler
  - Mapping, verification, reporting (e.g. Agriplot)
  - 👉Tech connects fragmented systems
- 5. From risk → opportunity
  - Market access, competitiveness, partnerships
  - 👉EUDR drives sector upgrade
- **Core Insight**
  - Compliance = inclusion + identity + structure + technology
  - EUDR in coffee is about formalizing smallholders into a verifiable system, without excluding them.

Cocoa



Ecuador's Cocoa Sector and the EUDR: Key Findings, Risks, and What Comes Next

Key Summary

- 1. Systemic risk
  - Many plots unregistered + overlap with forest areas
  - 👉Non-compliance is widespread
- 2. Land legality gap
  - Weak tenure, smallholder-driven system
  - 👉Main bottleneck = land legality
- 3. Fragmented traceability
  - Informal, intermediated supply chains
  - 👉Hard to prove origin consistently
- 4. Beyond deforestation
  - Requires geo + legal + due diligence
  - 👉Data & legality matter as much as forest
- 5. Smallholder risk
  - Potential exclusion from EU markets
  - 👉Market favors organized supply chains
- Core Takeaway
  - EUDR readiness is limited by legality, traceability, and system fragmentation
  - EUDR in cocoa is a shift from informal systems to verifiable, data-driven supply chains

Soy

Implementing EUDR in the Soy Supply Chain: The Case of Mato Grosso

Key Summary

- 1. Mostly compliant, still risky
    - 96% compliant, ~4% non-compliant
    - 👉Small gaps can block entire supply chains

2. Traceability gap
    - Missing geo-data, fragmented info
    - 👉Key issue = proving origin
- 3. Complex monitoring
    - Multi-country, multi-dataset verification
    - 👉Compliance is data-intensive
- 4. Data system gaps
    - Integration & reporting still weak
    - 👉Manual processes = high risk
- 5. Tech as enabler
    - Mapping, traceability, automated checks
    - 👉Systems unlock scalability

Core Takeaway

- Main barrier is traceability and data integration, not deforestation
- EUDR in soy is a data and traceability challenge at scales

Key Capabilities for Supply Chain and Landscapes Transformation

Tailored Digital Platforms for Sustainability Implementation

Designing and deploying customized digital tools that translate sustainability requirements into actionable workflows for monitoring, reporting, and decision-making.

Global Commodity Baseline Mapping and Supply Chain Traceability Verification

Developing and maintaining spatially explicit commodity baselines to support traceability, risk screening, and verification across global supply chains.

Landscape-Level Sustainability and Forest Recovery

Designing and implementing place-based interventions that support ecosystem recovery, forest conservation, and sustainable land use across commodity-driven landscapes.

Compliance Monitoring, Reporting, and Verification

Delivering evidence-based monitoring and assurance systems to support sustainability commitments and regulatory requirements through consistent reporting and verification.

Inclusive Community and Smallholder Engagement

Strengthening the role of independent smallholders and local communities through inclusive livelihood support, recognition of land tenure, and equitable participation in landscape governance.

Supply Chain Transformation through Engagement and Capacity Building

Supporting suppliers, smallholders, and partners through structured engagement and capacity-building programs that enable measurable improvements and long-term compliance.

Multi-Stakeholder Partnership and Systemic Change

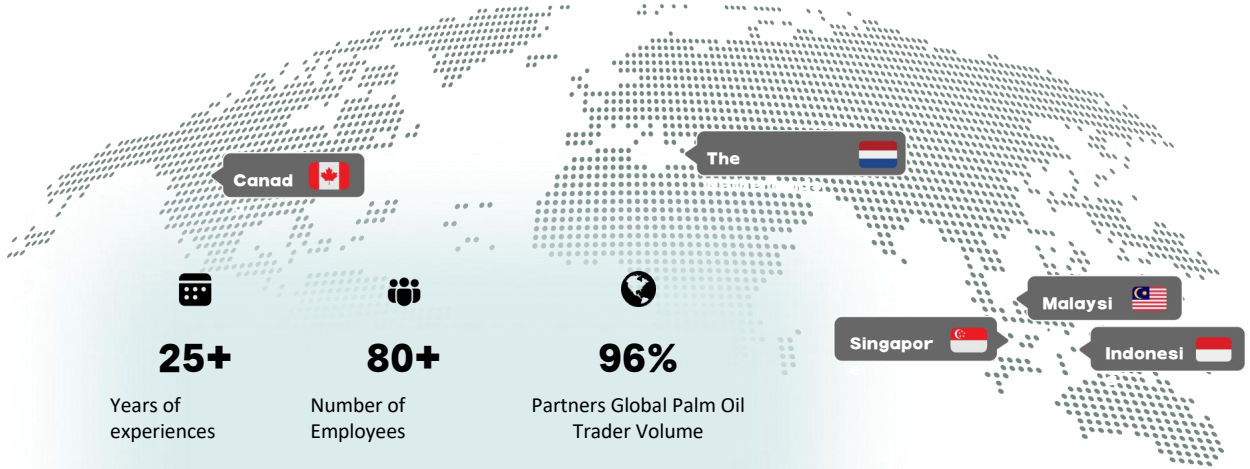
Facilitating collaboration among communities, governments, civil society, and private-sector actors to translate sustainability commitments into coordinated, long-term landscape transformation.

Our Organization

Earthqualizer Foundation is a non-profit driving sustainable, equitable landscapes by tackling commodity-driven deforestation. Through ecosystem recovery, forest conservation, and support for smallholders and community land rights, it delivers place-based solutions that align environmental protection with inclusive development.
www.earthqualizer.org | Indonesia

Inovasi Digital is the private-sector arm of Earthqualizer, turning field insights into practical, data-driven solutions for sustainability. It develops tools for supply chain transparency, supports NDPE and EUDR compliance, strengthens supplier engagement, and delivers tailored digital platforms for effective, on-the-ground implementation.
www.inovasidigital.asia | Indonesia | Malaysia

MosaiX is the European-based subsidiary of Inovasi Digital, bringing its innovations to wider markets and regulatory contexts. It bridges policy and field realities through strategic guidance and digital tools for due diligence, EUDR compliance, and responsible sourcing—connecting companies, traders, and investors to practical, high-impact solutions.
www.mosaix.earth | The Netherlands



Focus Commodities

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