

Jurisdictional Approach for Low-Carbon and Deforestation Commodity Sourcing: **Strengthening Traceability, Smallholder Inclusion, and Landscape Monitoring Systems**

February 2026



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February 2026



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Glossary

AFI	:	Accountability Framework Initiative
ART	:	Architecture for REDD+ Transactions
ASPIRAN	:	Asosiasi Bapakat Sawit Berkelanjutan Seruyan
CDM	:	Clean Development Mechanism
CGF	:	Consumer Goods Forum
DCF	:	Deforestation- and Conversion-Free
ERPA	:	Emission Reductions Payment Agreement
EUDR	:	European Union Deforestation Regulation
FAO	:	Food and Agriculture Organization of the United Nations
FCPF	:	Forest Carbon Partnership Facility
FPIC	:	Free, Prior and Informed Consent
GCFTF	:	Governors' Climate and Forests Task Force
GFW	:	Global Forest Watch
GPSNR	:	Global Platform for Sustainable Natural Rubber
ICCO	:	International Cocoa Organization
ICVCM	:	Integrity Council for the Voluntary Carbon Market
IDH	:	The Sustainable Trade Initiative
IPCC	:	Intergovernmental Panel on Climate Change
ISPO	:	Indonesian Sustainable Palm Oil
ISEAL Alliance	:	International Social and Environmental Accreditation and Labelling Alliance
JASPO	:	Sabah Jurisdictional Approach for Sustainable Palm Oil
JNR	:	Jurisdictional and Nested REDD+
LEAF	:	Lowering Emissions by Accelerating Forest Finance Coalition
MRV	:	Measurement, Reporting and Verification
MPOB	:	Malaysian Palm Oil Board
MSPO	:	Malaysian Sustainable Palm Oil
NBS	:	Nature-Based Solutions
NDC	:	Nationally Determined Contribution
NDPE	:	No Deforestation, No Peat, No Exploitation
POIG	:	Palm Oil Innovation Group
QA/QC	:	Quality Assurance / Quality Control
RADD	:	Radar for Detecting Deforestation
REDD+	:	Reducing Emissions from Deforestation and Forest Degradation
RSPO	:	Roundtable on Sustainable Palm Oil
SPLP	:	Siak Pelalawan Landscape Programme
SPOTT	:	Sustainability Policy Transparency Toolkit
tCO ₂ e	:	Tonnes of Carbon Dioxide Equivalent
TREES	:	The REDD+ Environmental Excellence Standard
UN-REDD	:	United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation
UNFCCC	:	United Nations Framework Convention on Climate Change
USDA FAS	:	United States Department of Agriculture - Foreign Agricultural Service
VCMI	:	Voluntary Carbon Markets Integrity Initiative
Verra	:	Verified Carbon Standard Organization
VSA	:	Verified Sourcing Area
WCF	:	World Cocoa Foundation



Source: Shutterstock

Introduction:

Decoupling Commodity Production from Deforestation

Deforestation is Partially Commodity-Driven

Commodity production remains a leading driver of tropical deforestation because it turns standing forests into supposedly higher-return land uses and then reinforces those conversions through infrastructure, processing capacity, and market access. The Food and Agriculture Organization of the United Nations (FAO) has found that agricultural expansion drives almost 90 percent of global deforestation, underscoring how often forest loss is tied to the economics of land conversion rather than isolated illegality or “bad actors”.¹ Global evidence also shows that a significant share of forest loss is commodity-driven deforestation” – permanent land-use change where forests are replaced by commercial agriculture and tree crops – meaning the threat is structural: once a production frontier opens, remaining forest blocks, riparian corridors, and peatlands become the residual land bank under pressure.²

This threat is not only about the initial clearing event. Commodity expansion often fragments forests into smaller, more vulnerable pieces, increases access, and accelerates follow-on conversion and degradation. Southeast Asia illustrates the stakes. Palm oil remains a core pillar of regional production, with Indonesia forecast at roughly mid-40 million metric tons and Malaysia at roughly high-teens to around 20 million metric tons in recent marketing years.³ Where expansion intersects peatland landscapes, the climate and fire risks are especially high: remotely sensed analysis has documented substantial conversion of tropical peatlands to oil palm plantations across Malaysia, Borneo, and Sumatra, highlighting how commodity growth can lock in long-lived emissions trajectories and ecosystem instability.⁴

¹ FAO (Food and Agriculture Organization of the United Nations), 2021. “COP26: Agricultural expansion drives almost 90 percent of global deforestation,” FAO (November 6, 2021). <https://www.fao.org/newsroom/detail/cop26-agricultural-expansion-drives-almost-90-percent-of-global-deforestation/en> (accessed on February 7, 2026).

² Curtis, P.G., C.M. Slay, N.L. Harris, A. Tyukavina, and M.C. Hansen, 2018. “Classifying drivers of global forest loss,” *Science*, 361 (6407), pp. 1108–1111.

³ USDA FAS (United States Department of Agriculture Foreign Agricultural Service), 2024. *Oilseeds and Products Annual – Indonesia* (GAIN Report ID2024-0004) (March 20, 2024). https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Oilseeds+and+Products+Annual_Jakarta_Indonesia_ID2024-0004.pdf; MPOB (Malaysian Palm Oil Board), 2024. *Overview of the Malaysian Oil Palm Industry in 2024*. <https://bepi.mpob.gov.my/images/overview/Overview2024.pdf> (both accessed on February 7, 2026).

⁴ Koh, L.P., and J. Ghazoul, 2011. “Remotely sensed evidence of tropical peatland conversion to oil palm,” *Proceedings of the National Academy of Sciences*, 108 (12), pp. 5127–5132

The policy environment is now shifting toward regulatory frameworks that require stronger legal and physical evidence of deforestation-free and low-carbon commodity production. Regulation (EU) 2023/1115 (the European Union Deforestation-Free Products Regulation, commonly referred to as the EUDR) explicitly targets commodities associated with deforestation and forest degradation – including cattle (beef and leather), cocoa, coffee, oil palm, rubber, soy, and wood. The regulation’s impact assessment estimated that, in the absence of regulatory intervention, European Union consumption and production of these key commodities could contribute to approximately 248,000 hectares of deforestation annually by 2030.⁵ This shift is particularly significant for smallholder-dominated commodities. Meeting due diligence requirements under the emerging deforestation regulations can be costly without shared jurisdictional systems that provide common infrastructure for traceability and geolocation. Under the EUDR framework, companies that place relevant commodities on the EU market are required to collect and submit geolocation information relating to the plots of land from which those commodities are sourced as a part of their due diligence obligation. However, for typical smallholder farms of around 2-4 hectares, geolocation requires only point-based coordinates rather than full polygon mapping, which substantially reduces the technical complexity and compliance cost for the companies.⁶ In natural rubber, for example smallholders account for more than 85 percent of global production, and supply-chain fragmentation can obscure origin unless jurisdictions provide shared traceability and monitoring infrastructure.⁷

In this context, jurisdictional approaches can play an important supporting role. By providing shared geospatial information, producer registries, monitoring systems, legality-related information, and landscape-level risk assessments, jurisdictions can help improve the availability and consistency of information used in company due diligence processes. Such systems may reduce transaction costs associated with data collection, verification, and risk assessment, particularly in fragmented smallholder supply chains. However, jurisdictional approaches do not replace company responsibilities under the EUDR. Companies remain responsible for assessing risks associated with the specific plots from which commodities are sourced, implementing appropriate risk mitigation measures where necessary, and submitting Due Diligence Statements linked to individual shipments placed on the EU market.

Together, these dynamics strengthen the central argument of this report: decoupling commodity production from deforestation requires jurisdictional systems that can manage leakage, align rules and enforcement, improve the availability of reliable information and reduce compliance costs through shared data and governance at scale.⁸ Such systems can support companies’ due diligence processes, while responsibility for meeting EUDR requirements remains with the companies that place products on the EU market.

⁵ EU (European Union), 2023. Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010; EU, 2024. Regulation (EU) 2024/3234 of the European Parliament and of the Council of 19 December 2024 amending Regulation (EU) 2023/1115 as regards provisions relating to the date of application.

⁶ “Cocoa Economy Informations,” ICCO (International Cocoa Organization). <https://www.icco.org/economy/> (accessed on February 7, 2026).

⁷ Inkonkoy, F., 2021. Sustainability in the natural rubber supply chain: Getting the basics right, SPOTT. Zoological Society of London, London.

⁸ EU, 2023, *op cit.*; EC

Commodity Sustainability Certification: From Supply Chain to Jurisdiction



Source: Shutterstock

Over the past decade, private and public actors have built an increasingly dense toolkit to address commodity-linked deforestation, starting with clearer common definitions and moving toward more standardized expectations for implementation and reporting. This evolution matters because “no deforestation” claims are only comparable if they share consistent concepts (for example, what counts as deforestation versus other ecosystem conversion, and what cut-off dates apply).⁹ In parallel, company commitments have shifted from broad pledges to more operational approaches that rely on traceability, risk screening, satellite monitoring, grievance systems, and corrective action — with varying levels of assurance.¹⁰ In palm oil, this toolkit is especially mature. A common “No Deforestation, No Peat, No Exploitation” (NDPE) framing has been reinforced through reporting frameworks and sectoral guidance that aim to make company progress more legible and comparable.¹¹ Meanwhile, certification systems such as the Roundtable on Sustainable Palm Oil (RSPO) and beyond

— such as the Palm Oil Innovation Group (POIG) — seek to translate sustainability expectations into auditable requirements.¹² Deforestation- and Conversion-Free (DCF) supply, reflecting a broader trend toward quantifying performance (not only commitments).¹³ National schemes — notably the Malaysian Sustainable Palm Oil (MSPO) standard and Indonesian Sustainable Palm Oil (ISPO) system — further add public-sector architecture that can anchor baseline legality and minimum practice expectations.¹⁴

Yet supply chain-centred approaches face structural limits that are increasingly visible. First, they can be costly and duplicative for producers and local governments when every buyer requests a slightly different evidence package. Second, they can create exclusion risks for smallholders where plot-level traceability, documentation, and monitoring capacity remain weak. Third, they can shift deforestation pressure rather than reduce it. These constraints become more consequential as regulation tightens.

⁹ AFI, 2023, *The Accountability Framework Core Principles*. Accountability Framework Principles, New York.

¹⁰ Proforest, 2024. *Progress on No-deforestation and No-peat Commitments in the Palm Oil Sector* (May, 2024). Tropical Forest Alliance and Proforest, Geneva and Oxford.

¹¹ *ibid.*

¹² RSPO (Roundtable on Sustainable Palm Oil), 2024. *RSPO Members Adopt the 2024 Principles and Criteria and Independent Smallholder Standard*, Press Release, RSPO (Roundtable on Sustainable Palm Oil) (November 13, 2024). <https://rspo.org/rspo-members-adopt-the-2024-principles-and-criteria-and-independent-smallholder-standard/> (accessed on January 11, 2026); POIG (Palm Oil Innovation Group), 2013. “The POIG Charter”, POIG (Palm Oil Innovation Group). <https://poig.org/the-poig-charter/> (accessed on January 11, 2026).

¹³ Proforest, 2023. *Guidance: Deforestation-and Conversion-free (DCF) Methodology — Palm Oil (Version 0)* (October 2023). Proforest, The Consumer Goods Forum, and Tropical Forest Alliance; Oxford. Levallois-Perret, and Geneva.

¹⁴ MSPO (Malaysian Sustainable Palm Oil), 2022. MS 2530:2022 (MSPO 2.0) Scheme Documents; Ri (Government of Indonesia), 2020. Regulation of the President of the Republic of Indonesia No. 44 of 2020 on the ISPO Certification System (English translation).

The European Union Deforestation Regulation (EUDR), requires companies to implement geolocation-linked due diligence and demonstrate legality to identify the precise origin of several forest-risk commodities, including palm oil, cocoa, and natural rubber. However, geolocation data alone is not sufficient for compliance. The regulation requires the establishment of a comprehensive due diligence system to assess, document, and mitigate risks of deforestation and illegality across their supply chain. This shifts compliance expectations beyond traceability toward integrated risk assessment and mitigation processes – placing new demands on data systems, verification, and governance beyond what most single companies can credibly deliver on their own.¹⁵

A jurisdictional approach responds to these limits by relocating the unit of performance and accountability from individual supply chains to a defined territorial jurisdiction (typically a district, province, or state), with substantial government involvement and multi-stakeholder governance.¹⁶ In practical terms, this means building a shared geospatial backbone (forest and ecosystem baselines, land-use zoning, concession and smallholder registries), establishing common rules and cut-off dates aligned to law and market requirements, operating monitoring and response systems that cover the whole territory (including grievance handling and corrective action), and enabling inclusive participation pathways for smallholders.¹⁷ Rather than replacing company due diligence, a credible jurisdictional system can lower transaction costs and reduce leakage by making “deforestation-free” performance measurable at scale – while creating a clearer platform for incentives (finance, technical assistance, procurement preference) tied to verified progress.¹⁸ In cocoa and rubber, emerging

sectoral platforms (for example the Cocoa and Forests Initiative and the Global Platform for Sustainable Natural Rubber) point in the same direction: alignment around shared definitions, data, and collective action that is difficult to achieve through isolated firm-by-firm efforts.¹⁹

The same logic that motivates a shift from supply chain certification toward jurisdictional no-deforestation verification, which seeks to assess and recognize sustainability performance at the level of an entire district or province rather than only at the level of individual producers or supply chains, also reframes how “nature-based value” can be credibly monetized. Jurisdictional approaches have been piloted in several commodity systems, for example, through initiatives such as the RSPO jurisdictional approach for sustainable palm oil which aim to align commodity, production, land-use governance, and environmental outcomes at the level of a province or district. If deforestation and conversion are driven by land-use decisions and enforcement realities that operate at landscape scale, then the risk assessment, monitoring systems, and incentive-based finance increasingly need to be organized around the same territorial control system – with shared baselines, monitoring, safeguards, and verified performance – while recognizing that jurisdictional approaches can support, but do not substitute for, company-level due diligence requirements under the regulations such as EUDR.²⁰ Such support may include jurisdictional-level information on deforestation trends, land-use governance, and legality risks that can inform company risk assessments, although companies remain responsible for evaluating the specific plots from which commodities are sourced and for fulfilling their due diligence obligations.

¹⁵ EU, 2023, *op cit.*

¹⁶ Macdonald, K., R. Diprose, J. Grabs, P. Schleifer, J. Alger, Bahruddin, B. Cashore, P. Cisneros, D. Delgado, R. Garrett, and W. Hopkinson, 2023. *Jurisdictional Approaches to Sustainable Commodity Governance*, Sustainable Global Supply Chains Discussion Papers Number 4 (September 2023). Sustainable Global Supply Chains Research Network, Bonn and Hamburg.

¹⁷ AFI, 2023, *op cit.*; Macdonald, et al., 2023, *op cit.*

¹⁸ Macdonald, et al., 2023, *op cit.*

¹⁹ WCF, 2017, *op cit.* <https://worldcocoafoundation.org/programmes-and-initiatives/cocoa-and-forests-initiative> (accessed on January 11, 2026); GPSNR, 2020, *op cit.*

²⁰ EU, 2023, *op cit.*; EU, 2024, *op cit.*; AFI, 2023a, *op cit.*; RSPO, 2021, *op cit.*; IDH, 2019. *Verified Sourcing Areas: Public Concept Note* (August 22, 2019). IDH, Utrecht; ISEAL, 2024, *op cit.*

Capitalizing Carbon as an Ecosystem Service: From Project-Based to Jurisdictional Approach



Source: Shutterstock

The jurisdictional approach seeks a spatial balance between commodity production and ecosystem services. Spatial coordination is particularly relevant in jurisdictions dominated by smallholders' production systems, where shared monitoring infrastructure can reduce verification costs and improve access to sustainability standards and international markets. Production should occur in suitable areas, while essential conservation zones are preserved. Degraded but ecologically important areas require rehabilitation, and former conservation lands converted to plantations need restoration for conservation purposes.

Commodity production isn't the only land-based source of revenue; ecosystem services also hold significant economic value. Monetizing these services can both lower deforestation emissions and generate financial returns. As we discussed in the previous section, jurisdictional systems can build upon this foundation by creating performance-based incentives linked to verified environmental outcomes.

Carbon finance is not as a parallel track, but as a potential performance-based revenue stream that can reinforce the jurisdiction's sustainability control system when accounting rules, safeguards, and claims

are disciplined. Jurisdictional carbon accounting and crediting extend the same core requirements — definitional clarity, geospatial coverage, monitoring linked to response, and credible assurance — but apply them to quantified emissions outcomes and benefit sharing under recognized standards and international reporting frameworks.²¹ When aligned with jurisdictional commodity monitoring systems, carbon accounting infrastructures can also improve land-use baseline consistency and strengthen monitoring systems that support both ecosystem service finance and commodity supply-chain transparency.

Two examples may be worth mentioning. The Governors' Climate and Forests Task Force (GCFTF) demonstrates how a jurisdictional approach can integrate land-use governance, deforestation reduction, monitoring systems and climate finance at subnational scale through a common territorial framework.

Similarly, the East Kalimantan jurisdictional Emission Reductions Program under the Forest Carbon Partnership Facility (FCPF) demonstrates how performance-based climate finance can be linked to jurisdiction-wide reductions in emissions from deforestation and forest degradation. In other words,

²¹ IPCC (Intergovernmental Panel on Climate Change), 2006. *2006 IPCC Guidelines for National Greenhouse Gas Inventories: Volume 4 — Agriculture, Forestry and Other Land Use*. IPCC Task Force on National Greenhouse Gas Inventories, Hayama; IPCC, 2019. *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*. IPCC, Geneva; "Warsaw Framework for REDD+", REDD+ Web Platform, UNFCCC (United Nations Framework Convention on Climate Change) (2013). <https://redd.unfccc.int/fact-sheets/warsaw-framework-for-redd.html> (accessed on February 14, 2026); Verra, 2024. *Jurisdictional and Nested REDD+ — JNR Program Guide v.4.1* (August 19, 2024). Verified Carbon Standard, Washington, DC.; ART (Architecture for REDD+ Transactions), 2021. *The REDD+ Environmental Excellence Standard* (TREES), Version 2.0 (August 2021). ART Secretariat, Arlington (accessed on February 16, 2026).

the jurisdictional approach is not only being used to quantify carbon outcomes, but also to organize the policy, monitoring, and benefit-sharing systems needed to reduce deforestation at scale. The program's payment architecture – up to \$110 million for up to 22 million tons of carbon dioxide equivalent, with an initial payment to Indonesia announced and transferred in 2022 with full financial payment settled in 2025 – shows how jurisdiction-wide carbon finance can be tied to verified emissions outcomes within a broader subnational governance framework. The East Kalimantan FCPF is not a market-based approach, but rather a so-called results-based contributions, which pays for performance without carbon credits being transferred to the payer.²²

Carbon credits initially emerged from project-based accounting, in which emissions reductions are measured against a business-as-usual trajectory at the project level through avoided deforestation or degradation, improved forest management and restoration and afforestation. Over time, this approach has evolved toward jurisdictional mechanisms that account for emission reductions across larger administrative areas such as provinces or states. In such systems, payments for carbon credits may come from governments, private companies, or climate finance initiatives such as the LEAF Coalition or the Forest Carbon Partnership Facility. These payments are typically performance-based, linked to verified reductions in deforestation and associated greenhouse gas emissions, measured through jurisdictional monitoring, reporting, and verification systems.²³ That difference can take several forms. In avoided deforestation or avoided degradation,

credits are tied to a claim that forest loss (and the associated emissions) would have occurred under the baseline, but is reduced under the project scenario. In improved forest management, credits come from a claim that management practices would have emitted more (or stored less) carbon in the baseline, but the project alters that balance. In restoration or reforestation, credits come from a claim that carbon stocks would have remained low or recovered more slowly, but the project accelerates removals relative to baseline.²⁴ Across these types, the credibility hinge is not the existence of trees or activities per se; it is the credibility of the “without-project” baseline and the plausibility that the project caused the difference (additionality).²⁵

Because the baseline is hypothetical, concession-based crediting inevitably becomes an exercise in disciplined uncertainty management.²⁶ Standards require projects to identify the most plausible baseline scenario, demonstrate additionality, and quantify reductions or removals using approved methods.²⁷ They also require explicit treatment of two structural risks. First, leakage: if forest loss pressure is displaced outside the concession, the project can appear successful while the broader landscape is unchanged. Second, non-permanence (reversals): forest carbon gains can be lost later due to fire, encroachment, governance breakdown, or other shocks; many forest crediting systems manage this by requiring contributions to a shared buffer mechanism based on assessed reversal risk.²⁸

²² “Indonesia”, FCPF (Forest Carbon Partnership Facility), the World Bank. <https://forestcarbonpartnership.org/country/indonesia> (accessed on April 1, 2026); “Indonesia Receives First Payment for Reducing Emissions in East Kalimantan.” World Bank (November 8, 2022). <https://www.worldbank.org/en/news/press-release/2022/11/08/indonesia-receives-first-payment-for-reducing-emissions-in-east-kalimantan> (accessed on April 4, 2026).

²³ *ibid.*; “Project Description and Monitoring Report,” Verra (Verified Carbon Standard). <https://verra.org/programs/verified-carbon-standard/project-description-and-monitoring-report/> (accessed on February 6, 2026); “VCS Program Methodologies,” Verra. <https://verra.org/program-methodology/vcs-program-standard/overview/> (accessed on February 6, 2026); LEAF Coalition. <https://www.leafcoalition.org> (accessed on April 1, 2026).

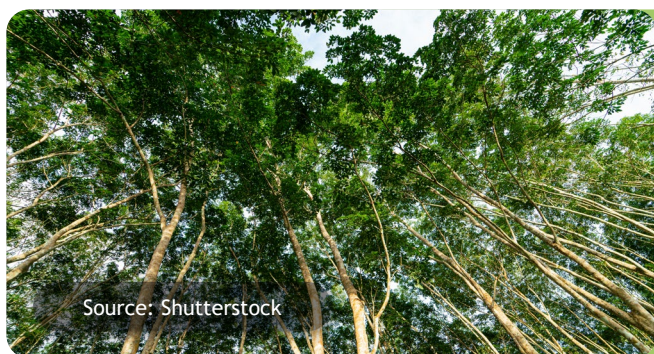
²⁴ Verra, “VCS Program Methodologies”, op cit.

²⁵ Verra, “Project Description and Monitoring Report”, op cit.;

²⁶ Explain some criticism re: avoided emissions

²⁷ Verra, “VCS Program Methodologies,” op cit.

²⁸ “Verra Releases Updated AFOLU (Agriculture, Forestry, and Other Land Use) Non-Permanence Risk Tool,” Verra (August 30, 2023). <https://verra.org/verra-releases-updated-afolu-non-permanence-risk-tool/> (accessed on February 6, 2026).



A landscape or jurisdictional approach is often better for land-based carbon crediting not because projects cannot work, but because it is designed around the reality that deforestation is rarely “owned” by one concession boundary. Jurisdictional approaches include local governance-led and operate across a legally defined territory, aligning multiple stakeholders, sectors, and interventions under a shared accounting and governance frame.²⁹ This scale can internalize more displacement and make leakage harder to hide, because the accounting boundary is large enough to capture many of the spillovers that would sit just outside a concession fence line.³⁰ It also connects finance to the levers that most strongly shape land-use outcomes – permits, enforcement, spatial planning, tenure arrangements, and incentives – which are usually beyond the practical control of a single project developer.³¹

Just as important, jurisdictional systems can define rules for nesting projects inside a wider territorial account, reducing double counting and claim confusion when multiple actors want recognition for overlapping actions. These nested accounting approaches also strengthen the credibility of jurisdictional monitoring systems that can support traceability alignment and deforestation-risk screening processes increasingly required in international commodity markets. Verra’s Jurisdictional and Nested REDD+ (Reducing Emissions

from Deforestation and forest Degradation, plus conservation, sustainable management of forests, and enhancement of forest carbon stocks) Framework explicitly describes nesting as provisions that align project-level accounting and safeguards with higher-level jurisdictional systems.³² ART (Architecture for REDD+ Transactions) TREES (The REDD+ Environmental Excellence Standard) similarly positions jurisdictional and national crediting as a route to verified credits with requirements on leakage and reversal risk mitigation and avoidance of double counting, among other integrity provisions.³³

Its importance as a pilot is that it demonstrated a full “jurisdictional pathway” from measurement, reporting, and verification (MRV) to payment at meaningful scale. Under an Emission Reductions Payment Agreement (ERPA) signed in November 2020, the program linked up to USD 110 million to 22 million tons of carbon dioxide equivalent (tCO₂e) in verified emission reductions, with an advance payment made in November 2022 and a final payment tranche made in December 2025.³⁴ FCPF reporting also frames the pilot as a proof point that a jurisdiction can deliver verified, contract-grade results – and that the real work of jurisdictional carbon accounting is as much about public institutions, safeguards, and benefit sharing as it is about carbon quantification.³⁵

²⁹ Boyd, W., C. Stickler, A.E. Duchelle, F. Seymour, D. Nepstad, N.H.A. Bahar, and D. Rodriguez-Ward, 2018. Ending Tropical Deforestation: A Stock-Take of Progress and Challenges: Jurisdictional Approaches to REDD+ and Low Emissions Development: Progress and Prospect (Working Paper). World Resources Institute, Washington, D.C.

³⁰ ART, 2021, *op cit.*

³¹ UNFCCC, “Warsaw Framework for REDD+”, *op cit.*

³² Verra, 2022, *op cit.*

³³ ART, 2021, *op cit.*

³⁴ “Indonesia Receives First Payment for Reducing Emissions in East Kalimantan,” World Bank (November 8, 2022). <https://www.worldbank.org/en/news/press-release/2022/11/08/indonesia-receives-first-payment-for-reducing-emissions-in-east-kalimantan> (accessed on February 7, 2026); FCPF (Forest Carbon Partnership Facility), 2026. “Indonesia Completes Delivery of Contracted Emission Reductions Under FCPF,” Forest Carbon Partnership Facility (January 2026). <https://www.forestcarbonpartnership.org/results-story-announcement/indonesia-completes-delivery-contracted-emission-reductions-under-fcpf> (accessed on February 7, 2026).

³⁵ World Bank, 2020, *op cit.*; FCPF, 2026, *op cit.*



Source: Shutterstock

Learning from Cases in Indonesia and Malaysia:

Integrating Jurisdictional Sourcing of Sustainable Commodities and Reduction of Emissions



Jurisdictional approaches in sustainable and no-deforestation commodity sourcing are increasingly being tested as a practical way to align land-use governance, commodity production, and climate outcomes within a defined administrative boundary (for example, district, province, or state). Across Indonesia and Malaysia, pilots have emerged from different entry points — sustainable palm oil commitments, Verified Sourcing Area (VSA) initiatives, and jurisdictional Reducing Emissions from Deforestation and forest Degradation (REDD+) programs — but they converge on the same operational question: can a jurisdiction credibly demonstrate that it is controlling deforestation and conversion drivers, protecting rights, and sustaining outcomes over time, at a scale that matches both market demand and climate accounting?³⁶ Such systems are particularly relevant in supporting operator-level due diligence processes under evolving regulatory frameworks including the

EUDR, while also strengthening producing regions' ability to engage more effectively in international sustainability dialogues.

This section synthesizes evidence from four commodity-oriented jurisdictional pilots (Seruyan, Siak-Pelalawan, Aceh Tamiang, and Sabah) and one jurisdictional emissions-reduction program (East Kalimantan) to derive an integrated technical model. It argues that the “end state” should not be two parallel systems (one for deforestation- and conversion-free commodities and one for carbon crediting), but a single jurisdictional system that can generate multiple assurance products — including deforestation and conversion-free sourcing claims, jurisdictional sustainability scorecards, and (where appropriate) high-integrity jurisdictional carbon credits — without double counting, integrity arbitrage, or exclusion of smallholders and Indigenous Peoples.³⁷

³⁶ RSPO, 2021. *op cit.*

³⁷ Verra, 2024, *op cit.*

What the Case Studies Demonstrate: Observable Outcomes and Persistent Constraints



The case studies show that jurisdictional approach is not one instrument but a sequence of institutional milestones that gradually establish a functioning control system. First, they demonstrate the feasibility of creating a jurisdiction-level governance entity that can be recognized by markets as the operational “counterparty” of a jurisdictional approach. In Seruyan, the RSPO Jurisdictional Approach pilot anchored a multi-stakeholder platform and led to the establishment of Asosiasi Bapak Sawit Berkelanjutan Seruyan (ASPIRAN) as the jurisdictional entity – enabling an initial recognition milestone under the RSPO Jurisdictional Approach stage framework. The Seruyan experience also surfaces a recurring issue: recognition— can move faster than the hard governance work of clarifying land tenure, ensuring Free, Prior, and Informed Consent (FPIC), and resolving conflicts, which can in turn create legitimacy risks if safeguards are not treated as binding system requirements rather than narrative commitments.³⁸ Then milestones—the formal steps or status markets through which a jurisdictional initiative is acknowledged by a standard to market system as having met certain procedural requirements, for example, establishing a governance body, adopting a roadmap, or entering a defined implementation stage can “move faster” because

those milestones often assess whether institutional structures and documents exist, while the harder work beneath them – clarifying tenure, securing FPIC, building trust, and resolving conflicts – is slower, more political, and more difficult to complete in practice.

Second, they show that private sector coalition models can accelerate technical readiness – particularly on geospatial monitoring, producer registration, and performance signalling – but still require institutional “handover” into government systems to become durable. The Siak Pelalawan Landscape Programme (SPLP) is structured around a coalition of major palm oil companies and implementing partners (including Daemeter and Proforest), working to translate deforestation- and conversion-free ambition into a district-scale program that can be internalized by local government through policies, spatial controls, and enforcement coordination. In these coalition models, the core technical contribution is often the early establishment of a shared geospatial backbone – baselines, monitoring layers, and risk screening – but the persistent constraint is governance durability: the system remains fragile if the program is not embedded into official planning, licensing controls, and field enforcement routines.³⁹

³⁸ Colchester, M., E. Kleden, and D. Sukma, 2020. *Preliminary findings from a Review of the Jurisdictional Approach initiative in Seruyan, Central Kalimantan, Indonesia*, Case Study (June 2020). Forest Peoples Programme, Moreton-in-Marsh.

³⁹ “Siak Pelalawan Landscape Programme”, Daemeter Consulting. <https://www.daemeter.org/project/siak-pelalawan-landscape-programme/>; “Siak Pelalawan Landscape Programme (SPLP)”, Proforest <https://www.proforest.net/what-we-do/production-landscapes/landscape-initiatives/siak-pelalawan-landscape-programme/>; “Siak Pelalawan Landscape Programme”, SPLP (Siak Pelalawan Landscape Program). <https://www.siakpelalawan.net> (all accessed on February 14, 2026).

Third, the case studies demonstrate that smallholder inclusion is not simply a social “add-on,” but an integrity condition. In Aceh Tamiang, the Verified Sourcing Area (VSA) model was explicitly designed to integrate smallholders into jurisdictional sustainability outcomes through traceable sourcing, producer support, and public-private coordination.⁴⁰ The presence of specific delivery mechanisms — such as a smallholder hub and structured extension support — matters because jurisdictional claims collapse if a large portion of production remains outside the monitoring and response system.⁴¹ This makes producer registration coverage — especially among independent smallholders — a central requirement for maintaining traceability credibility and reducing exclusion risks from regulated supply chains. In addition to being a moral concern; it is also a statistical and compliance concern: without credible producer registration and coverage, both deforestation- and conversion-free assurance and carbon accounting face uncontrolled leakage and unverifiable attribution.

Fourth, the Sabah case demonstrates the importance — and difficulty — of state-scale institutional anchoring. Sabah’s participation in RSPO’s jurisdictional approach has been operationalized through Sabah Jurisdictional Approach for Sustainable Palm Oil (JASPO) and state-level coordination mechanisms, illustrating that jurisdictional sustainability monitoring system at scale requires political authority and the ability to align subnational agencies.⁴² At the same time, independent assessments have emphasized that rights, participation, and community safeguards must remain central, especially in contexts where land tenure and customary claims are contested.⁴³ In other words, scale raises the stakes: weak safeguards become system-wide integrity failures.

Finally, the East Kalimantan jurisdictional emissions-reduction program demonstrates what changes when the “assurance product” is not market preference

signalling, but monetized performance under a carbon transaction framework. Under the Forest Carbon Partnership Facility (FCPF) Carbon Fund architecture of the World Bank, East Kalimantan’s program required an explicit reference level, a monitoring and measurement architecture, safeguards documentation, and a benefit-sharing plan — all of which had to be robust enough to withstand external verification and formal payment conditions.⁴⁴ This case also makes the risk structure visible: once performance-based finance is involved, governance failures (including safeguards failures) are no longer reputational issues only; they become contractual, fiduciary, and grievance risks that can trigger inspection and remedial processes.⁴⁵

Taken together, the case studies show that jurisdictional sourcing and monitoring system is best understood as building a single “jurisdictional control system” — a coherent bundle of rules, institutions, data infrastructure, monitoring-response routines, safeguards, and accountability mechanisms — that can support both sustainable commodity verification and jurisdictional carbon accounting, provided the system is explicitly designed for integration rather than retrofitted after the fact.⁴⁶ While jurisdictional approaches do not replace company-level due diligence obligations under regulations such as the EUDR, they can substantially strengthen the governance, monitoring, and information systems required for effective risk mitigation. By improving producer registration, geolocation coverage, traceability systems, and landscape-level monitoring, jurisdictional approaches provide important enabling infrastructure that supports company due diligence processes. They should therefore be understood as compliance-enabling systems rather than substitutes for operator-level due diligence and legal responsibility. For countries such as Indonesia and Malaysia, the advantages and benefits of jurisdictional approach have been recognized and may be strengthened simply to strengthen national regulatory compliance.

⁴⁰ “Verified Sourcing Areas: Aceh Tamiang”, Musim Mas. <https://www.musimmas.com/sustainability/partnership-collaboration/landscape-approach-and-programs/aceh-province/aceh-tamiang-idhs-verified-sourcing-area-vsa-project/> (accessed on January 11, 2026).

⁴¹ “Musim Mas Bentuk Smallholder Hub Pertama di Aceh Tamiang”, Musim Mas (October 14, 2020). <https://www.musimmas.com/id/sumber-daya/rilis-berita/musim-mas-establishes-first-smallholders-hub-in-aceh-tamiang-2/> (accessed on January 11, 2026).

⁴² RSPO, 2021. *op cit*

⁴³ Colchester, M., 2020. *Preliminary findings from a Review of the Jurisdictional Approach initiative in Sabah, Case Study* (June 2020). Forest Peoples Programme, Moreton-in-Marsh.

⁴⁴ World Bank, 2022. *Indonesia — East Kalimantan Emission Reductions Program: Implementation Status and Results Report* (June 9, 2022). World Bank, Washington, DC

⁴⁵ World Bank, 2024. *Inspection Panel: Indonesia — East Kalimantan Emission Reductions Program (P170638)*. World Bank, Washington, DC.

⁴⁶ FCPF (Forest Carbon Partnership Facility), 2025. *Annual Report Released: Scaling Results, Strengthening Transitions* (November, 2025).

Translating Case Study Lessons into a Jurisdictional Sourcing System for Deforestation and Conversion-Free Commodities



A jurisdictional verification system for sustainable commodities must do more than aggregate farm-level certification. It must demonstrate that the jurisdiction has (1) a clear sustainability standard, (2) a functioning control system that can detect and respond to non-compliance, and (3) an assurance mechanism that produces credible outputs for buyers, regulators, and financiers in addition to supply chain-based certification.⁴⁷ The case studies show what these elements look like in practice.

System Boundary and Sustainability Standard

The jurisdiction must be explicitly defined as the system boundary, with a standard that is legible to markets and enforceable through governance instruments. In practice, this means adopting a deforestation and conversion-free definition that aligns with prevailing corporate commitments and due diligence frameworks, and translating it into operational rules (cutoff dates, land-cover definitions, and scope across forests, peatlands, and other natural ecosystems).⁴⁸ Methodologies that operationalize

deforestation and conversion-free definitions — including explicit treatment of conversion of non-forest natural ecosystems — are essential to avoid “compliance theatre” where the jurisdiction claims sustainability while conversion shifts from forests into other high-carbon or high-biodiversity ecosystems.⁴⁹ Alignment with evolving regulatory frameworks such as the European Union Deforestation Regulation should therefore be understood as strengthening jurisdictional readiness to support operator-level due diligence processes rather than creating jurisdiction-level compliance claims.

Jurisdictional approach is particularly critical for independent smallholders, who often lack the technical and financial capacity to provide plot-level geolocation information, demonstrate legality and participate in traceability and monitoring systems on an individual basis. Jurisdictional approach therefore provides an important pathway for organising shared traceability infrastructure and monitoring systems that enable more cost-efficient inclusion of smallholders in EUDR-aligned supply chains.⁵⁰

⁴⁷ AFI, 2023, *op cit.*

⁴⁸ RSPO, 2021, *op cit.*; AFI, 2023. *Operational Guidance: Applying the Definitions Related to Deforestation and Conversion* (April 2023). Accountability Framework initiative, New York.

⁴⁹ CGF (The Consumer Goods Forum), 2023. *Forest Positive Coalition: Guidance — Deforestation- and Conversion-Free (DCF) Methodology for Palm Oil, Version 0*. The Consumer Goods Forum, Paris; AFI, 2023, *op cit.*

⁵⁰ EU, 2025. Regulation (EU) 2025/2650 of the European Parliament and of the Council of 19 December 2025 amending Regulation (EU) 2023/1115 as regards certain obligations of operators and traders; “Delay until December 2026 and other developments in the implementation of EUDR regulation,” Access2Markets, EU (January 28, 2026). <https://trade.ec.europa.eu/access-to-markets/en/news/delay-until-december-2026-and-other-developments-implementation-eudr-regulation> (accessed on February 14, 2026).

Governance and Institutional Architecture

Across the case studies, effective jurisdictional verification requires a multi-stakeholder governance mechanism with a clearly designated jurisdictional entity that can coordinate across agencies and stakeholders. Seruyan's ASPIRAN (Asosiasi Bapak Sawit Berkelanjutan), SPLP's coalition architecture, Aceh Tamiang's compact logic, and Sabah's JASPO each reflect different institutional forms, but they share a common requirement: a structured platform that can translate sustainability commitments into cross-agency operational routines (spatial planning, permitting, enforcement, and producer support).⁵¹ In particular, these governance platforms play an important role in coordinating producer registration expansion and support mechanisms that enable independent smallholders to participate in traceability-based supply chains.

However, the case studies also show that institutional form is not enough. The governance mechanism must include enforceable safeguards, grievance handling, and participation rules — particularly regarding Indigenous Peoples and smallholders — because failure in these areas can signal legality and land-tenure risks within supply chains.⁵² Transparent and accessible governance systems can also provide information relevant to supply-chain risk assessment and mitigation processes.

Geospatial Backbone, Producer Registration, and Traceability Coverage

Jurisdictional approaches must be able to answer three questions credibly: (1) who is producing, (2) where production occurs, and (3) what is happening to land cover over time. The practical implication is

that producer registration (including smallholders) is not an administrative exercise but a core technical requirement — because without geolocated producer coverage, monitoring cannot be linked to accountable actors, and corrective action becomes discretionary or symbolic.⁵³

Jurisdictional systems can help organize this information at scale by supporting producer registration — including independent smallholders — and linking geolocated production data with land-cover monitoring. Without such coverage, monitoring data cannot easily be connected to identifiable producers, making risk assessment and corrective engagement more difficult for companies implementing due diligence.⁵⁴

Monitoring, Response Protocols, and Corrective Action

The most instructive technical lesson from the case studies is that monitoring alone is not assurance. Jurisdictional verification requires a monitoring-response protocol: a defined sequence that turns alerts into investigation, investigation into attribution, and attribution into corrective action and remediation.

Near-real-time monitoring systems based on radar are increasingly important in tropical landscapes because they enable jurisdictions to detect forest disturbance more rapidly and demonstrate control rather than retrospective reporting.⁵⁵ This monitoring capability must then be linked to response routines — including field verification, enforcement coordination, and grievance integration — so that the system can demonstrate not only detection but corrective capacity.⁵⁶ Effective monitoring-response systems strengthen early detection and coordinated mitigation of deforestation risks while increasing confidence among market actors and financiers.

⁵¹ RSPO, 2021, *op cit.*; ISEAL, 2024, *op cit.*; “Siak Pelalawan Landscape Programme”, *op cit.*; “Aceh Tamiang to become sustainable producing region as 1st step towards Verified Sourcing Area”, IDH — The Sustainable Trade Initiative (April 16, 2019). <https://idh.org/news/aceh-tamiang-to-become-sustainable-producing-region-as-1st-step-towards-vsa> (accessed on February 14, 2026); “Sabah JASPO,” JASPO (Sabah Jurisdictional Approach for Sustainable Palm Oil).

⁵² ISEAL, 2024, *op cit.*; Colchester, M., et al., 2020, *op cit.*; Colchester, M., 2020, *op cit.*

⁵³ “Traceability”, AFI (Topic Summary). https://accountabilityframework.org/fileadmin/uploads/afi/Documents/Topic_Summaries/TS_-_Traceability.pdf (accessed on February 14, 2026); RSPO, 2021, *op cit.*

⁵⁴ RSPO, 2021, *op cit.*; ISEAL, 2024, *op cit.*; Brascamp, F., 2020. *How a Landscape Approach Can Support System Users: A Case from Siak and Pelalawan, Indonesia*, 10th ISCC Regional Committee Meeting Southeast Asia (October 21, 2020). Proforest and Daemeter, Oxford and Bogor.

⁵⁵ “Deforestation alerts (RADD) — dataset description,” Global Forest Watch Open Data Portal, GFW (Global Forest Watch). <https://data.globalforestwatch.org/datasets/gfw::deforestation-alerts-radd/about>; Weisse, M., 2021. “New Radar Alerts Monitor Forests Through the Clouds,” Global Forest Watch Blog, GFW. <https://www.globalforestwatch.org/blog/data-and-tools/radd-radar-alerts/> (both accessed on February 14, 2026).

⁵⁶ AFI, 2023, *op cit.*; RSPO, 2021, *op cit.*; ISEAL, 2024, *op cit.*

Assurance Outputs and Market-Facing Claims

A jurisdictional verification system should generate multiple assurance products, because different users require different evidentiary formats. Buyers may require a verified sourcing claim or scorecard; regulators may require geolocation-linked due diligence evidence as the basis for the verifying risks, in which jurisdictional approach can contribute; financiers may require risk ratings and safeguards performance; and local stakeholders require transparency and grievance access. The case studies suggest that practical outputs include jurisdictional sustainability scorecards, public dashboards, verified sourcing area claims, and third-party audit reports, tailored to different market uses.⁵⁷

The key design principle is that these outputs must be traceable back to the same control system and datasets – not produced as separate “reports” that

cannot be reconciled. Where outputs are divorced from the underlying control system, the jurisdiction becomes vulnerable to credibility challenges and accusations of greenwashing.⁵⁸

Effective jurisdictional governance also depends on a clear allocation of responsibilities among stakeholders. Governments provide regulatory oversight, spatial planning, producer registration systems, and enforcement functions; companies contribute through due diligence implementation, traceability systems, supplier engagement, and responsible sourcing commitments; financial institutions support investment and incentive mechanism; while producer organizations and civil society contribute to safeguards implementation monitoring, grievance handling, and stakeholder participation. Jurisdictional platforms play a critical coordinating role by aligning these actors around shared sustainability objectives and accountability mechanisms.



Source: Shutterstock

⁵⁷ EU (European Union), 2023, op cit.; IDH (IDH – The Sustainable Trade Initiative), 2019. *Verified Sourcing Areas: an IDH developed concept*. IDH – The Sustainable Trade Initiative, Utrecht (August 22, 2019); ISEAL, 2024, op cit.; AFI (Accountability Framework initiative), 2023. *Monitoring and Verification: Topic Summary* (April 2023). Accountability Framework initiative, New York; “LandScale assessment framework,” LandScale. <https://docs.landscale.org/assessment-guidelines/get-started/introduction-to-the-landscale-system/landscale-assessment-framework> (accessed on February 14, 2026).

⁵⁸ ISEAL, 2022. *Making Credible Jurisdictional Claims: ISEAL Good Practice Guide* (Version 1.1) (March 2022). ISEAL Alliance, London; AFI, 2023, op cit.

Jurisdictional Nested Carbon Accounting: From Measurement to Crediting



Jurisdictional carbon accounting is an evidence-based process to quantify greenhouse gas emissions and removals across a defined territory, consistent with Intergovernmental Panel on Climate Change (IPCC) methods and aligned with international reporting architectures.⁵⁹ In the land-use context, it is most developed for forest-related emissions and removals through REDD+ under the United Nations Framework Convention on Climate Change Warsaw Framework, which defines core building blocks such as forest reference levels, national forest monitoring systems, safeguards information systems, and results-based payments.⁶⁰ When aligned with jurisdictional commodity monitoring systems, carbon accounting infrastructures can also strengthen spatial baseline consistency and improve traceability credibility across forest-risk commodity supply chains.

The East Kalimantan case illustrates the additional system requirements that arise when accounting moves into performance-based payment or crediting. Unlike voluntary sustainability scorecards or jurisdictional carbon programs that require quantified emission reductions against explicit reference levels,

jurisdictional approaches in commodity sectors such as palm oil do not assess performance producer-by-producer. Instead, they rely on jurisdiction-level baselines and landscape-scale monitoring systems to track deforestation risk, strengthen traceability coverage, and improve legality alignment across the supply base. This system-level approach reduces the need for costly farm-level measurement and helps facilitate the inclusion of independent smallholders by organising shared monitoring and traceability infrastructure at jurisdictional scale rather than through individual compliance verification.⁶¹

Jurisdictional carbon accounting A jurisdictional carbon accounting system requires, at minimum:

- A reference level or baseline against which performance is assessed (for example a forest reference emission).
- A reference level or baseline against which performance is assessed (for example, a forest reference emission level), supported by transparent methods and data.⁶²

⁵⁹ IPCC, 2006, *op cit.*; IPCC, 2019, *op cit.*

⁶⁰ UNFCCC, “Warsaw Framework for REDD+”, *op cit.*

⁶¹ *ibid.*

⁶² “Forest Reference Emission Levels”, REDD+ Web Platform, UNFCCC. <https://redd.unfccc.int/fact-sheets/forest-reference-emission-levels.html> (accessed on February 14, 2026).

⁶³ “National Forest Monitoring System”, REDD+ Web Platform, UNFCCC. <https://redd.unfccc.int/fact-sheets/national-forest-monitoring-system.html> (accessed on February 14, 2026); UN-REDD (United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation), 2013. *National Forest Monitoring Systems: Monitoring and Measurement, Reporting and Verification (M & MRV) in the Context of REDD+*. Food and Agricultural Organization of the United Nations, Rome.

- A forest monitoring system capable of producing activity data over time (forest loss, degradation proxies, restoration outcomes), with documented uncertainty and QA/QC procedures.⁶³
- Emission factors (or stock-difference approaches) consistent with Intergovernmental Panel on Climate Change methodological expectations, with clear treatment of pools and gases.⁶⁴
- Leakage management (activity shifting and market effects), reversal risk management (including buffers), and durable governance arrangements to maintain performance over time.⁶⁵
- Safeguards and grievance mechanisms that are not aspirational, but operationally linked to program decisions and benefit distribution.⁶⁶

Crediting standards and nested architecture.

Jurisdictional carbon accounting becomes jurisdictional carbon certification when it is aligned with a crediting or results-based payment standard. In voluntary carbon markets, major jurisdictional frameworks include Verra's Jurisdictional and Nested REDD+ framework and Architecture for REDD+ Transactions' TREES standard, which set rules for quantification, monitoring, safeguards, verification, and issuance at jurisdictional scale.⁶⁷ TREES is explicitly designed for large jurisdictions and is structured to produce credits at jurisdictional level under a standardized set of integrity requirements.⁶⁸

A critical technical and political requirement is nesting: reconciling project-level activities and claims within jurisdictional accounting so that credits, results, and claims are not double counted. Nested structures also matter for incentives, because projects and communities often need localized benefit streams, but the climate accounting integrity requires jurisdiction-level baselines and reconciliation rules.⁶⁹

Claims integrity and interaction with national and international accounting

Because carbon credits now sit in a crowded claims environment, jurisdictions increasingly need to align crediting and claims with integrity frameworks such as the Integrity Council for the Voluntary Carbon Market's (ICVCM) Core Carbon Principles and the Voluntary Carbon Markets Integrity (VCMI) Initiative's Claims Code.⁷⁰ These frameworks do not replace accounting standards, but they shape how credits can be credibly marketed and used, and they increase the cost of weak monitoring, unclear additionality narratives, or opaque benefit-sharing arrangements.⁷¹

In contexts where credits may interact with Nationally transfers, guidance on cooperative approaches under Article 6 of the Paris Agreement becomes relevant to avoid double counting and to clarify authorization and corresponding adjustments where applicable.⁷²

⁶⁴ IPCC, 2016, *op cit.*; IPCC, 2019, *op cit.*

⁶⁵ FCPF, 2020. *Carbon Fund Methodological Framework (Revised 2020)*. FCPF, Washington, DC.; and FCPF, 2025. *ER Program Buffer Guidelines* (Version 4.3, August 2025). FCPF, Washington, DC; ART, 2021, *op cit.*

⁶⁶ "Safeguards", REDD+ Web Platform, UNFCCC. <https://redd.unfccc.int/fact-sheets/safeguards.html>; World Bank, 2021. *Indonesia — East Kalimantan Project for Emissions Reductions Results: Benefit Sharing Plan*. World Bank, Washington, DC.; UN-REDD, 2017. *REDD+ Safeguards Information Systems: Practical Design Considerations*. United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation, Geneva.

⁶⁷ Verra, 2024, *op cit.*; ART, 2021, *op cit.*

⁶⁸ ART, 2021, *op cit.*

⁶⁹ Verra, 2024, *op cit.*; FCPF, 2020. *Carbon Fund Methodological Framework (Revised 2020): Program-scale accounting, leakage and non-permanence risk management, and benefit-sharing requirements*. Forest Carbon Partnership Facility, Washington, DC.

⁷⁰ ICVCM (Integrity Council for the Voluntary Carbon Market), 2024. *Core Carbon Principles, Assessment Framework and Assessment Procedure* (Version 3.0) (May 2024). Integrity Council for the Voluntary Carbon Market, London; VCMI (Voluntary Carbon Markets Integrity Initiative), 2023. *Claims Code of Practice* (Version 1.0). Voluntary Carbon Markets Integrity Initiative, London.

⁷¹ *ibid.*

⁷² UNFCCC, 2015. *Paris Agreement* (Article 6). United Nations Framework Convention on Climate Change, Bonn.; UNFCCC, 2021. Decision 2/CMA.3: Guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement (Glasgow Climate Pact package).

Integrating Jurisdictional Sustainable Commodities and Carbon Certification



The case studies and the technical logic of jurisdictional accounting point to a clear conclusion: jurisdictions should not build two parallel assurance systems. They should build one jurisdictional control system that can produce both deforestation and conversion-free commodity assurance and jurisdictional carbon accounting outputs, because the underlying evidence base and governance requirements overlap substantially.

Shared foundations: geospatial, monitoring-response system, safeguard architecture. A unified system should share, at minimum, the following foundations: common geospatial backbone, monitoring-response protocols, safeguards and grievance mechanism, and governance arrangements. These foundations support both commodity assurance and jurisdictional carbon accounting, while ensuring consistency of data, decision-making, and accountability across different sustainability objectives.

Implementation experience demonstrates the practicality of this approach. The jurisdictional East Kalimantan program illustrates the depth of safeguards and benefit-sharing architecture required for carbon transactions, including environmental and social risk management systems, stakeholder participation procedures, grievance redress mechanism and performance-based benefit-sharing arrangements. At the same time, the focused commodity pilots illustrate the operational necessity of producer registration, traceability coverage, and monitoring-response routines to support deforestation risk assessment and supply-chain transparency. Integration means adopting the stricter requirements where they matter most, rather than choosing the weakest common denominator.

Differentiating outputs while preserving a single evidence base. Integration does not mean conflating claims. The system should explicitly distinguish at

least three output types: (1) commodity assurance for deforestation and conversion-free sourcing, (2) broader sustainability performance assessments, and (3) jurisdictional carbon accounting and, where applicable, carbon credits. Each output should follow its own claim rules and integrity requirements.

All three outputs should be generated from the same datasets and control system, but they should carry different claim rules.

A practical integrated workflow. Based on the case studies and the requirements embedded in jurisdictional standards, an integrated jurisdictional approach can be operationalized through the following workflow:

- Define jurisdiction boundary, governance mandate, and jurisdictional entity (including multi-stakeholder representation and clear authority).
- Adopt a jurisdictional sustainability standard that operationalizes deforestation and conversion-free requirements and safeguards commitments, aligned with relevant national standards (for example, Indonesia Sustainable Palm Oil through Presidential Decree No. 16/2025 and Malaysia Sustainable Palm Oil MS 2530:2022) and with external market requirements (including European Union Deforestation Regulation).⁷³
- Build a shared geospatial backbone (baselines, producer registry, land cover, forest cover, peat and protected areas, concessions where possible).
- Implement a monitoring-response protocol using near-real-time alerts (including radar where appropriate) and clear procedures for investigation, attribution, enforcement referral, remediation, and public reporting.⁷⁴
- Establish producer inclusion mechanisms, with explicit smallholder support architecture (registration, extension, market access mechanisms, and hub models) to prevent leakage and exclusion.⁷⁵
- Specify the jurisdictional carbon accounting architecture (reference level, monitoring approach, emission factors, uncertainty, leakage and reversal management), designed from the start to accommodate nesting and benefit-sharing arrangements.⁷⁶
- Define assurance products and claim rules, aligned with market integrity expectations (Core Carbon Principles and Claims Code) and, if relevant, Article 6 guidance.⁷⁷
- Subject the system to third-party audit and iterative improvement, with transparent reporting on corrective actions, safeguards performance, and coverage expansion.

In effect, the merged evidence suggests that jurisdictional approaches for commodity sustainability and jurisdictional carbon certification are not competing “labels.” They are different outputs from the same underlying governance and monitoring system — and the technical task is to design that system so that the outputs reinforce one another, rather than creating parallel structures that invite inconsistency, double counting, and declining trust.

⁷³ ART, 2021, op cit.; “National Forest Monitoring System”, REDD+ Web Platform, UNFCCC. <https://redd.unfccc.int/fact-sheets/national-forest-monitoring-system.html> (accessed on February 14, 2026); UN-REDD, 2015, op cit.; IPCC, 2006, op cit.; IPCC, 2019, op cit.

⁷⁴ GFW “Deforestation alerts (RADD) ...”, op cit.; Weisse, M. 2021. “New Radar Alerts Monitor Forests Through the Clouds,” GFW (March 2, 2021). <https://www.globalforestwatch.org/blog/data-and-tools/radd-radar-alerts/>; AFI, 2023, op cit.; RSPO, 2021, op cit.

⁷⁵ AFI, 2020. *Operational Guidance: Smallholder Inclusion in Ethical Supply Chains* (Rev. 2020). Accountability Framework initiative, New York; RSPO, 2019. *RSPO Independent Smallholder Standard*. Roundtable on Sustainable Palm Oil, Kuala Lumpur.

⁷⁶ UNFCCC, “Warsaw Framework for REDD+”, op cit.; FCPF, 2020, op cit.; World Bank, 2021, op cit.; Verra, 2024, op cit.; ART, 2021, op cit.

⁷⁷ ICVCM, 2024, op cit.; VCMi (Voluntary Carbon Markets Integrity Initiative), 2025. *VCMi Claims Code of Practice*, Version 3.1 (August 2025). VCMi, 2025, op cit.; UNFCCC, 2021. *Guidance on Cooperative Approaches Referred to in Article 6, Paragraph 2, of the Paris Agreement* (Decision 2/CMA.3, contained in FCCC/PA/CMA/2021/10/Add.1). United Nations Framework Convention on Climate Change, Bonn; and UNFCCC, 2015. Paris Agreement (Article 6). United Nations Framework Convention on Climate Change, Bonn.



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Upscaling the Integration of Jurisdictional Approach for Commodity Sustainability and Carbon Certification



Upscaling jurisdictional approach should be understood as moving from a small set of pilots into a nationally recognized, interoperable system that (1) is anchored in public governance, (2) is legible to markets and regulators, and (3) can be implemented at reasonable cost across diverse subnational contexts.⁷⁸ In practical terms, this means translating “jurisdictional verification” into repeatable operating procedures: a common performance framework, a shared geospatial backbone, standardized monitoring-and-response

protocols, and a defined pathway for recognition by buyers, financiers, and regulators.⁷⁹ The central design choice is to treat jurisdictional certification as a public-performance infrastructure that can generate multiple assurance outputs (commodity sustainability claims, due-diligence evidence, and — where appropriate — quantified carbon performance and credits) from a single control system, rather than building parallel reporting tracks that drift apart over time.⁸⁰

⁷⁸ ISEAL, 2024, *op cit.*

⁷⁹ AFI, 2023a, *op cit.*

⁸⁰ ISEAL, 2024, *op cit.*; *ibid.*

National Upscaling Pathways: Indonesia and Malaysia as Anchors

In Indonesia, the most direct pathway to national scale is to embed jurisdictional verification within national commodity governance and data systems, rather than treating it as an external add-on. For palm oil, Presidential Regulation No. 16 of 2025 on the Indonesian Sustainable Palm Oil and National Standard Framework MSPO Standard MS 2530 2022 system provides an enabling anchor to align subnational verification with national certification obligations, institutional roles, and audit pathways.⁸¹

For carbon in Indonesia, Presidential Regulation No 110 of 2025 and Ministry of Forest Regulation No 6 of 2026 provide room for jurisdictional-based implementation aligned with the national and international accounting system. Upscaling then becomes a matter of converting jurisdictional practice into enforceable routines: (1) district-level producer registration and geolocation as a default entry point; (2) an agreed land-cover reference framework including transparent and explicitly documented forest definitions where applicable - that support both sustainable commodity sourcing and jurisdictional carbon accounting, while recognizing that alignment with regulatory definitions such as those under EUDR must be assessed explicitly in operating guidance; (3) a standardized monitoring pipeline (alerts → triage → field verification → corrective action); and (4) rules for how jurisdictional results can be used to support certification readiness, procurement preferences, and finance eligibility.⁸²

Two further integrations determine whether Indonesia, Malaysia and other applicable countries can scale beyond a handful of demonstration jurisdictions. In Indonesia, for example, the One Map Policy is the practical basis for harmonizing spatial references

across agencies and resolving disputes that otherwise undermine verification credibility and enforcement legitimacy.⁸³ Spatial harmonization under the One Map Policy also strengthens the credibility of jurisdictional-level evidence packages that can be used by supply chain actors in risk assessment and mitigation processes required by importing jurisdictions. Also, jurisdictional verification should be designed to “plug into” national climate and land-use accounting architectures from the outset — particularly for Forest and Other Land Use performance — so that the same evidence base can support public planning, enforcement prioritization, and results-based finance narratives (where applicable).⁸⁴ This does not mean that all jurisdictions must pursue carbon crediting; it means that the national system should be able to accommodate jurisdictions that do, without forcing parallel monitoring systems that create inconsistency and double counting.⁸⁵

In Malaysia, upscaling is best approached as a “baseline-plus” model. The Malaysian Sustainable Palm Oil (MSPO) standard provides a national baseline, with distinct provisions for smallholders and supply chain requirements; jurisdictional verification then adds landscape-scale monitoring and response discipline, disclosure, and coordinated smallholder support services.⁸⁶ Upscaling also needs to respect institutional reality: land and forests are central state competences, so state-level leadership is not optional. Sabah’s experience suggests the form that “plus” can take: a multi-stakeholder platform that coordinates standards alignment, monitoring, smallholder inclusion, and market-facing claims in a way that is credible to external users but operationally rooted in state functions.⁸⁷

⁸¹ RI, 2025. Peraturan Presiden Republik Indonesia No. 16/2025 tentang Sistem Sertifikasi Kelapa Sawit Berkelanjutan Indonesia.

⁸² AFI, 2023a, *op cit.*; *ibid.*

⁸³ RI, 2016. Peraturan Presiden Republik Indonesia No. 9/2016 tentang Percepatan Pelaksanaan Kebijakan Satu Peta pada Tingkat Ketelitian Peta Skala 1:50.000.

⁸⁴ IPCC, 2006, *op cit.*; IPCC, 2019, *op cit.*

⁸⁵ *ibid.*; UNFCCC, “Warsaw Framework for REDD+”, *op cit.*

⁸⁶ MSPO, 2022. *Overview of the Revised MSPO Standards (MS2530:2022)*. MSPO, Kuala Lumpur.

⁸⁷ RSPO, 2021. *RSPO Jurisdictional Approach: Framework and Guidance* (RSPO Jurisdictional Approach resources). Roundtable on Sustainable Palm Oil, Kuala Lumpur.

Multi-Commodity Scaling: Extending Beyond Palm Oil (Cacao, Rubber, and Others)



The regulatory and market logic for multi-commodity expansion is already set: EUDR requires due diligence that includes, among others, the submission of geolocation data. Within the same jurisdiction, such geolocation databases will be similarly applicable in multiple-commodity processes. As such, jurisdictions that build verification infrastructure only for palm oil will still face compliance required in other commodity landscapes, but may be able to utilize the same geolocation information system.⁸⁸ The practical implication is to build a jurisdictional system that is commodity-scalable by design: palm oil may be the first implementation track, but the underlying “hard parts” — geospatial backbone, monitoring-response protocols, grievance systems, legality checks, and smallholder inclusion services — must be structured as shared infrastructure.⁸⁹ This inclusion architecture is particularly critical under EUDR, where incomplete geolocation coverage of smallholders can translate directly into elevated supply-chain risk perception. Because operators placing products on the EU market must submit Due Diligence Statements linked to specific commodity shipments, jurisdictions that

build multi-commodity traceability infrastructure can support due diligence processes across different supply chains, reduce duplication in data collection and improve inclusion prospects for smallholders.

A technically robust approach is a modular standard architecture with two layers. Core requirements (shared across commodities) should include common forest and natural ecosystem definitions and cutoff dates, legality and permitting checks, and social safeguards (including free, prior and informed consent where relevant), aligned to recognized norms and good practice.⁹⁰ Commodity annexes (for cacao, rubber, coffee, and other commodities) then specify (1) producer registration rules appropriate to smallholders and farmer groups; (2) definition of “control points” (collection, aggregation, first processing) that are operationally meaningful for traceability; and (3) tailored risk indicators that reflect commodity-specific land-use dynamics.⁹¹ This avoids the false choice between “one system per commodity” (costly and fragmented) and “one generic system for all commodities” (too vague to be credible).

⁸⁸ EU, 2023, *op cit.*

⁸⁹ AFI, 2023, *op cit.*; *ibid.*

⁹⁰ AFI, 2023, *op cit.*

⁹¹ *ibid.*; GPSNR, 2020, *op cit.*

Cocoa and Forests Initiative, 2017. Frameworks for Action: Cocoa & Forests Initiative. World Cocoa Foundation, Washington, DC.

For natural rubber, the Global Platform for Sustainable Natural Rubber (GPSNR) provides a widely used policy framework for companies and supply chains, including commitments across legality, ecosystems, and social issues; aligning jurisdictional verification with such commodity-specific frameworks improves market legibility and reduces reinvention.⁹² For cacao, the Cocoa & Forests Initiative provides an established framework for action linking deforestation reduction to supply chain commitments and producer

support; jurisdictional systems can translate those commitments into place-based coverage and corrective action routines.⁹³ In both cases, the technical priority is the same: smallholder-dominated commodities require explicit inclusion architecture (registration, group governance, extension support, and access to compliance services), or else “verification” will select for large producers, shift risk to informal margins, and produce leakage.⁹⁴

Upscaling Jurisdictional Carbon Accounting and Crediting Within National Architectures

Scaling jurisdictional carbon performance starts by treating jurisdictional accounting as nested within national accounting, consistent with IPCC methods and the UNFCCC Warsaw Framework for REDD+, including reference levels, monitoring systems, safeguards, and results-based finance.⁹⁵ At the point where accounting supports results based-finance, certification or crediting, jurisdictions also need alignment with recognized jurisdictional standards such as Verra’s Jurisdictional and Nested REDD+ framework and Architecture for REDD+ Transactions’ TREES standard, each of which specifies requirements for quantification, monitoring, safeguards, verification, and issuance at jurisdictional scale.⁹⁶

The critical technical and political requirement is nesting: reconciling project-level activities and claims within jurisdictional accounting so that emissions reductions, credits, and claims are not double counted.⁹⁷ The national system must therefore define (1) how reference levels relate across scales; (2) how activity data and emission factors are integrated; (3) how benefit sharing flows to local actors without

creating conflicting claims; and (4) how registry operations and authorizations are governed where credits may interact with Nationally Determined Contribution (NDC) accounting or international transfers.⁹⁸ This is not merely a methodological detail; it is the integrity backbone that determines whether carbon finance reinforces jurisdictional governance or undermines it through fragmented incentives.

Because credits now sit in a crowded claims environment, carbon-crediting jurisdictions increasingly need to align crediting and claims with integrity frameworks such as the ICVCM’s Core Carbon Principles and the VCMI’s Claims Code.⁹⁹ These frameworks do not replace accounting standards, but they shape how credits can be credibly marketed and used — increasing the cost of weak monitoring, unclear additionality narratives, and opaque benefit-sharing arrangements.¹⁰⁰ In contexts where credits may interact with international transfers, guidance on cooperative approaches under Article 6 of the Paris Agreement becomes relevant to avoid double counting and to clarify authorization and corresponding adjustments where applicable.¹⁰¹

⁹² GPSNR, 2020, *op cit.*

⁹³ Cocoa and Forests Initiative, 2017, *op cit.*

⁹⁴ AFI, 2023, *op cit.*; GPSNR, 2020, *op cit.*; Cocoa and Forests Initiative, 2017, *op cit.*

⁹⁵ IPCC, 2006, *op cit.*; IPCC, 2019, *op cit.*; UNFCCC, “Warsaw Framework for REDD+”, *op cit.*

⁹⁶ Verra, 2021, *op cit.*; ART, 2021, *op cit.*

⁹⁷ *ibid.*

⁹⁸ ICVCM, 2024, *op cit.*; VCMI, 2025, *op cit.*

⁹⁹ *ibid.*

¹⁰⁰ *ibid.*

¹⁰¹ UNFCCC, 2021, *op cit.*

Financing Architecture: Paying for the Control System, Not Just the Label



Upscaling will not hold without a financing architecture that pays for the control system — registration, monitoring, response capacity, safeguards, producer support, and audit cycles — rather than only subsidizing certification events. This is where sustainability certification and carbon certification can be made mutually reinforcing: commodity compliance creates recurring operational demand for the control system, while carbon and broader climate finance can help pay the upfront and public-good costs that markets alone underprovide (geospatial infrastructure, early-warning systems, enforcement capacity, and smallholder service delivery).¹⁰² In the context of EUDR implementation, financing jurisdictional monitoring-response systems and smallholder traceability coverage should be understood as investments in supply-chain risk mitigation infrastructure rather than support for certification labels alone. Such investments may be supported through a combination of public funding, supply-chain actors, development partners, and climate finance mechanisms, and can strengthen the information base used by companies in their due diligence processes without substituting for company-level responsibilities under the EUDR. The information

generated on the deforestation risks in jurisdiction should be made public, at least be accessible to those who need them.

At national level, the financing stack typically needs three layers. First, public budgets and public institutions fund core public functions and data infrastructure (including One Map interoperability and enforcement-related monitoring).¹⁰³ Second, private-sector demand and buyer incentives fund compliance services and verified sourcing readiness (including smallholder group certification support, data management, and audit costs) where credible governance exists.¹⁰⁴ In the context of EUDR implementation, financing jurisdictional monitoring-response systems and smallholder traceability coverage should be understood as investments in supply-chain risk mitigation infrastructure rather than support for certification labels alone. Third, blended finance and results-based finance instruments fund transitional gaps and scale externalities — particularly for smallholders and high-risk landscapes where compliance costs are front-loaded and benefits accrue over time.¹⁰⁵

¹⁰² IPCC, 2006, *op cit.*; IPCC, 2019, *op cit.*; UNFCCC, “Warsaw Framework for REDD+”, *op cit.*; Verra, 2021, *op cit.*; ART, 2021, *op cit.*

¹⁰³ RI, 2016, *op cit.*

¹⁰⁴ AFI, 2023a, *op cit.*

¹⁰⁵ IPCC, 2006, *op cit.*; IPCC, 2019, *op cit.*; UNFCCC, “Warsaw Framework for REDD+”, *op cit.*; MSPO, 2022, *op cit.*; RSPO, 2021, *op cit.*; ICVCM, 2024, *op cit.*; VCMI, 2025, *op cit.*

This stack becomes more actionable when linked to sustainable finance classification systems. The ASEAN Taxonomy for Sustainable Finance provides a regional reference for what qualifies as “green” or “transition” finance, which can be used to structure regional capital mobilization into jurisdictional control systems and smallholder inclusion services.¹⁰⁶ Regional facilities such as the ASEAN Catalytic Green Finance Facility demonstrate how concessional capital can be deployed through governance and public investment programs to reduce project risks and mobilize larger pools of public and private investment. These

facilities typically finance large-scale infrastructure or sustainability-related projects implemented by public agencies or public-private partnerships rather than directly individual farmers or companies.

A practical implication is that jurisdictions (and national governments) should package jurisdictional verification not only as “sustainability compliance,” but as investable public-performance infrastructure aligned with regional sustainable finance taxonomies and credible monitoring and safeguards.¹⁰⁷

Regional Upscaling: Toward an Interoperable Southeast Asian System

National scale is necessary but increasingly insufficient. Because commodity supply chains, finance, and market-access regulations operate across borders, Southeast Asian upscaling should be framed as interoperability across the Association of Southeast Asian Nations (ASEAN) Member States: comparable definitions, compatible evidence packages, and mutual learning on monitoring and response.¹⁰⁸ The aim is not a single regional “certificate,” but a regional interoperability layer that reduces duplication for buyers and regulators and raises minimum integrity expectations across jurisdictions, and strengthens the collective negotiating position of Southeast Asian producer countries in technical dialogues with the European Union on implementation pathways for deforestation-free supply chains.

Three building blocks make regional scaling plausible. First, definitional alignment: ASEAN-level interoperability requires that deforestation and conversion-free definitions, cutoff-date logic, and legality evidence packages are sufficiently comparable across national schemes (for example, ISPO and MSPO for palm oil) to allow mutual recognition

of evidence components even where certification labels differ.¹⁰⁹ Second, monitoring interoperability: regional cooperation can standardize the handling of alerts, response documentation, and public reporting formats, drawing on lessons from existing transboundary environmental cooperation instruments in the region.¹¹⁰ Third, finance interoperability: by using the ASEAN Taxonomy as a shared language, ASEAN-level investors and facilities can allocate capital toward comparable jurisdictional “control system” investments – especially where multiple countries face similar smallholder inclusion and landscape-risk challenges across commodities such as rubber and cacao.¹¹¹

In effect, the merged evidence suggests that jurisdictional sustainability sourcing systems and carbon accounting frameworks are not competing instruments. They are different outputs from the same underlying governance and monitoring system – and the technical task of upscaling is to design that system so the outputs reinforce one another, rather than creating parallel structures that invite inconsistency, double counting, and declining trust.¹¹²

¹⁰⁶ Association of Southeast Asian Nations (ASEAN) Taxonomy Board, 2025. *ASEAN Taxonomy for Sustainable Finance* (Version 4). ASEAN Taxonomy Board, Jakarta.

¹⁰⁷ *ibid.*; ADB (Asian Development Bank), 2019. *ASEAN Catalytic Green Finance Facility (ACGF)*. Asian Development Bank, Manila.

¹⁰⁸ ASEAN Taxonomy Board, 2025, *op cit.*; ASEAN (Association of Southeast Asian Nations), 2002. *ASEAN Agreement on Transboundary Haze Pollution*. ASEAN Secretariat, Jakarta.

¹⁰⁹ AFI, 2023, *op cit.*; RI, 2025, *op cit.*; MSPO, 2022, *op cit.*; RSPO, 2021, *op cit.*; ASEAN Taxonomy Board, 2025.

¹¹⁰ ASEAN, 2002, *op cit.*

¹¹¹ ASEAN Taxonomy Board, 2025, *op cit.*; ADB, 2019, *op cit.*; GPSNR, 2020, *op cit.*; Cocoa and Forests Initiative, 2017, *op cit.*

¹¹² ISEAL, 2024, *op cit.*; AFI, 2023a, *op cit.*; ICVCM, 2024, *op cit.*; VCMI, 2025, *op cit.*



Concluding Note

This report argues that the jurisdictional approach is moving from “nice to have” sustainability signalling into a core market-access and finance-enabling function. The strategic implication is that the competitiveness of producing jurisdictions will increasingly depend on whether they can demonstrate credible control over land-use outcomes at scale, and provide reliable information to support company due diligence, rather than relying on fragmented farm-level data collection and verification.

It means jurisdictional sustainability systems are evolving from voluntary signalling mechanisms into governance frameworks that can support market transparency and access to sustainable finance. Jurisdictional approaches can strengthen the enabling environment for company due diligence under regulations such as the EUDR while responsibility for compliance remains with the companies placing products on the market.

The case studies in Indonesia and Malaysia show that credible jurisdictional claims are produced by systems — not labels. What works in practice is a jurisdictional “control system” that combines an enforceable sustainability standard, a shared geospatial backbone, continuous monitoring linked to response protocols, and assurance outputs that are traceable back to the same datasets and governance routines. This

architecture is most scalable when it is anchored in national policy instruments that can be translated into operational rules across agencies and districts — for example Indonesia Sustainable Palm Oil under Presidential Regulation No. 16/2025, and Malaysia Sustainable Palm Oil under MS 2530:2022 — while remaining legible to external market requirements.¹¹³

The same system logic must now be extended beyond palm oil. Expanding regulatory expectations and market demand for verified sustainable sourcing make “single-commodity implementation strategy” an increasingly fragile strategy: if jurisdictions build a strong control system only for palm oil, deforestation and conversion risk can shift into cocoa, rubber, or other frontier commodities, undermining both environmental outcomes and market credibility.¹¹⁴ The practical way forward is a modular jurisdictional standard — one core deforestation and conversion-free and safeguards framework, with commodity-specific annexes for traceability requirements, legality interpretations, smallholder support pathways, and market-facing claims. This modular architecture is particularly important because shared jurisdictional geospatial, monitoring and traceability systems can support company due diligence processes across multiple commodity supply chains, reducing duplication of traceability investments across supply chains and improves smallholder inclusion across commodities.

¹¹³ RI, 2025, *op cit.*; MPOC, 2022, *op cit.*

¹¹⁴ EU, 2023, *op cit.*

Jurisdictional sustainability approaches also increasingly intersect with jurisdictional carbon accounting. At the technical core, jurisdictional carbon accounting quantifies greenhouse gas emissions and removals across a defined territory using IPCC inventory methods, and in the forest domain is operationalized through the UNFCCC Warsaw Framework for REDD+ (including forest reference levels, national forest monitoring systems, safeguards information systems, and results-based finance).¹¹⁵ Carbon certification emerges when this accounting is aligned with crediting and results-based standards that specify quantification, monitoring, safeguards, verification, and issuance rules at jurisdictional scale — most notably ART-TREES standard and Verra’s JNR framework.¹¹⁶ The governance challenge is “nesting”: reconciling project-level actions and benefits within jurisdictional baselines and accounting, so that claims are not double counted and incentives remain coherent from communities and projects up to districts, provinces, and the national level.¹¹⁷

Because sustainability and carbon claims now sit in a crowded integrity environment, scale depends not only on technical measurement but also on claims discipline. Integrity frameworks such as the Integrity Council for the Voluntary Carbon Market’s (ICVCM’s) Core Carbon Principles and the Voluntary Carbon Market Integrity (VCMI) Initiative’s Claims Code do not replace accounting standards, but they increasingly shape what markets will accept as credible use and communication of credits and verified claims.¹¹⁸ Where jurisdictional carbon claims may interact with Nationally Determined Contribution accounting or international transfers, guidance on cooperative approaches under Article 6 of the Paris Agreement becomes relevant to avoid double counting and to clarify authorization and corresponding adjustments where applicable.¹¹⁹ In practice, this means jurisdictions and national authorities need explicit rules for claim types, claim boundaries, and claim authorization — and they need to treat benefit sharing and safeguards performance as integrity-critical, not as ancillary “social programs.”

Finally, scaling is ultimately an institutional and financial architecture problem. The East Kalimantan FCPF program illustrates why: when a jurisdiction moves

from monitoring to performance-based payments, it must establish reference levels, verification, legal arrangements for benefit distribution, and durable governance to maintain performance over time.¹²⁰ The same is true for sustainable-commodity verification: credible scale requires predictable funding for producer registration, monitoring-response operations, smallholder support, grievance handling, and third-party assurance. Clear claim-boundary definitions also strengthen the position of producer jurisdictions in technical dialogues with importing regions such as the European Union regarding demonstrating how jurisdiction-level monitoring and safeguards systems can contribute to the information base used in companies’ due diligence and supply chain risk mitigation architectures. The most realistic pathway is blended: domestic fiscal instruments and public systems (planning, spatial data, enforcement, extension), complemented by market-linked incentives (preferential sourcing, price premia where available, transition finance) and results-based payments for verified emissions reductions and removals. At the regional level, alignment with emerging taxonomies and catalytic facilities — such as the ASEAN Taxonomy for Sustainable Finance and the ASEAN Catalytic Green Finance Facility — can help standardize how financial institutions define “eligible” jurisdictional investments and crowd in capital across Southeast Asia.¹²¹

The core conclusion is therefore straightforward: jurisdictional sustainability approaches and jurisdictional carbon certification should be designed as different outputs from the same underlying governance, data, and assurance infrastructure. If jurisdictions build parallel systems — separate registries, separate baselines, separate monitoring and reporting — the likely outcome is inconsistency, double counting, and declining trust. If jurisdictions build separate systems, they likely result in duplication, inconsistency, and higher costs. If they build one integrated control system, they can generate multiple credible outcomes—from verified sustainable sourcing and improved risk management to high-integrity climate and environmental performance. This is the most practical pathway for scaling sustainability outcomes while strengthening competitiveness and investment readiness across Southeast Asia.

¹¹⁵ IPCC, 2006, *op cit.*; IPCC, 2019, *op cit.*; UNFCCC, 2013, *op cit.*

¹¹⁶ ART, 2021, *op cit.*; Verra, 2024, *op cit.*

¹¹⁷ *ibid.*

¹¹⁸ ICVCM, “The Core Carbon Principles”, *op cit.*; VCMI, 2023, *op cit.*

¹¹⁹ UNFCCC, 2021, *op cit.*

¹²⁰ World Bank, 2021, *op cit.*

¹²¹ ASEAN, 2023, *op cit.*