

# COP30 Systemiq Contribution

## Roadmap on Halting and Reversing Deforestation and Forest Degradation by 2030

### (a) What are the most critical barriers preventing the halt and reversal of deforestation and forest degradation?

- **Forest conversion remains economically rational across very different contexts.**
  - In Brazil, forest conversion continues in a land-use system built around ~165 million ha of pasture, with roughly 82 million ha degraded, while the Brazilian Legal Amazon generates ~US\$19.6 billion/year in rainfall services not priced into land-use decisions. (*Embrapa; Baker et al., 2026*)
  - In Colombia, agribusiness drives >80% of native vegetation loss, with 68% linked to cattle. (*IDEAM*)
  - In West Africa, Ghana and Côte d'Ivoire lost ~41% of primary forest since 2002, largely cocoa-driven. (*Global Forest Watch*)
  - In East Africa, forest loss is driven by smallholder agriculture and biomass dependence. A similar dynamic applies in the Congo Basin, where fuelwood and charcoal for cooking remain major drivers of forest degradation because household energy systems still depend heavily on forest resources. (*FAO*)
  - In Peru, a significant share of deforested land has been converted to pasture since 2008, alongside continued expansion of agriculture and mining. (*MINAM/Geobosques; MAAP*)
  - The lack of economic incentives to keep standing forests associated with significant returns from agribusiness activities and low law enforcement set a high cost of opportunity to preserve native vegetation.
- **Illegal economies, land grabbing, and speculative frontier expansion remain embedded in forest loss dynamics.**
  - In Colombia, 89% of deforestation for commercial agriculture is illegal. (*IDEAM, 2025*)
  - In Peru, mining expanded from 41,000 ha to 169,000 ha, alongside continued land conversion. (*MINAM; MAAP*)
  - In Central Africa, illegal logging accounts for up to 50% of deforestation in Gabon. (*FAO*)
  - In East Africa, ~80% of timber in Uganda is illegal; in West Africa only ~7% of exports are certified. (*FAO; Forest Trends*)
  - In Brazil, undesignated public forests are a major driver of illegal deforestation. Around 50% of Amazon deforestation occurs on public lands, particularly in Florestas Públicas Não Destinadas, where unclear tenure enables land grabbing and speculative clearing (*Imaflora*). Additionally, the trend of

increasing value of agriculture land in Brazil contributes to the pressure over native vegetation (Scot Consultoria).

- **Governance and compliance systems are too weak and fragmented to enforce existing law.**
  - In Brazil, incomplete validation of CAR registrations and limited traceability of indirect suppliers constrain effective enforcement of the Forest Code, particularly in complex supply chains such as cattle. (*MapBiomas*)
  - In parallel, Brazil's traceability ecosystem remains fragmented, with 31 initiatives and 247 stakeholders operating without a fully interoperable architecture, increasing costs and slowing verification. (*Systemiq*)
  - In Central Africa, 78% of land deals fail tenure standards, and trade remains largely informal. (*Land Matrix*)
  - At the same time, legally permitted deforestation under national frameworks — including in non-tropical countries such as Canada and Australia — continues to contribute to forest loss, as permanent conversion to agriculture, infrastructure, and other land uses is allowed within legal thresholds, highlighting that policy design can be as important as enforcement gaps. (*Natural Resources Canada; Australian Government DCCEEW*)
- **Energy poverty and livelihood dependence make forest degradation structurally rational.**
  - In many African countries, charcoal and fuelwood cost 2–5 times less per unit of energy than LPG or kerosene, are widely available in informal markets, and can be purchased in small quantities, while modern energy access remains limited or unreliable (*IEA; World Bank; FAO*).
  - In the Congo Basin, around 60 million people depend directly on forests, and about 75% of the population relies on biomass energy, with charcoal and fuelwood remaining central to cooking energy demand. (*FAO; CAFI*)
  - In West Africa, hundreds of millions of people depend on forests for livelihoods and energy, and charcoal remains deeply embedded in urban cooking systems because it is locally available, divisible into small purchases, and less constrained by formal distribution networks than LPG or electricity. (*FAO; World Bank; Global Forest Watch*)
  - In East Africa, biomass remains the primary household energy source — especially for cooking — for more than 90% of the population in several countries, including Madagascar, Uganda, Tanzania, and Ethiopia. (*Systemiq; FCPF/Global Forest Watch*)
- **Finance remains very limited for forest frontiers and the actors most responsible for outcomes.**
  - Congo Basin received only US\$40 million in forest protection finance (2017–2021) — around 4% of what was allocated to each of the Amazon and

Southeast Asia — while private capital accounted for only a small share of total climate finance reaching the region. (UNEP; CPI)

- Colombia requires approximately US\$13–15 billion/year for its climate and nature agenda; current investment remains below US\$300 million annually. (Government of Colombia – Climate Finance Strategy / E2050; Climate Policy Initiative; Nature4Climate)
- Smallholders receive only 0.8% of global climate finance despite managing most forest-risk production. (CPI, 2023)

## (b) What levers could accelerate progress?

### • **Scale and redirect finance — from national instruments to global facilities.**

- Aligning financial flows with forest outcomes requires not only public and concessional finance, but also mechanisms that de-risk investments and create bankable pipelines for private actors. Instruments such as blended finance, guarantees, and performance-linked payments reduce risk and improve returns, making forest-positive production investable.
- Eco Invest Brasil mobilized ~US\$2 million to convert degraded pasturelands, and can potentially mobilize more R\$ 5 billion impacting 1.4 million hectares within the next 2 years. (Systemiq)
- Evidence from Brazil shows that linking rural credit access to environmental compliance can materially reduce deforestation by constraining capital to non-compliant actors while rewarding sustainable producers. This demonstrates that financial regulation—when enforced through lending criteria—can act as a powerful, scalable lever to realign land-use decisions at the farm level (Assunção et al., *Economic Journal*)
- Brazil's Sustainable Taxonomy (Decree 12.705/2025) provides a system-wide classification framework that defines what qualifies as environmentally sustainable economic activity, enabling regulators, investors, and financial institutions to consistently channel capital toward low-deforestation and nature-positive outcomes.
- The Tropical Forest Finance Facility (TFFF), launched at COP30, raised over US\$6.5 billion and was endorsed by 66 countries — including 36 tropical countries holding ~875 million ha of tropical forest — providing sovereign-level incentives to maintain forest cover. (TFFF concept design; World Bank engagement)

### • **Expand production on already-cleared and degraded land — removing the need to convert new forest.**

- Brazil has 80–100 million ha of degraded pasture, with PNCPD targeting 40 million ha for transition. (MAPA)
- Linked to it, Brazil's RAIZ initiative strengthens the economic case for restoration by mobilising international finance and technology for degraded agricultural

land, building on Caminho Verde Brasil's 40 million ha target and R\$30.2 billion first phase. (MAPA; FAO)

- Brazil's Soy Moratorium shows that soy expansion can be decoupled from deforestation, but its weakening could increase forest loss by up to 30%. (WWF-Brasil, 2026; Mongabay, 2026)
  - Indonesia also has a clear land-sparing opportunity, with 5.8 million ha of degraded land identified as having potential for restoration and agricultural or energy use, avoiding additional forest conversion. (CIFOR-ICRAF; Systemiq)
  - In West Africa, Produce-Protect-Restore cocoa models provide a comparable lever, by increasing productivity on existing farms and linking farm rehabilitation with off-farm landscape regeneration instead of new clearing. (Systemiq)
  - In Central Africa, Cameroon's planned cocoa and coffee expansion will only be forest-positive if it occurs through rehabilitation and intensification on already-cleared land, not by converting remaining forest. (Systemiq; FAO Cameroon;CAFI)
- **Treat traceability and MRV as public infrastructure, not voluntary corporate practice, and ensure they are backed by enforcement and to enable private-sector compliance at scale.**
    - Traceability systems only reduce deforestation when they are connected to legal compliance, embargoes, and financial consequences for non-compliance; otherwise, they improve visibility without materially changing incentives.
    - AB+S and CAR-based systems can enable national-level traceability for Brazilian soy, but their effectiveness depends on validation, interoperability, and linkage to enforcement of the Forest Code and embargo regimes.
    - Pará's Green Grains Protocol reaches ~96% market coverage, showing that traceability can scale, but its impact depends on compliance checks, embargo screening, and enforcement against non-compliant producers. (ABIOVE)
  - **Build standing-forest economies that make conservation the commercially dominant land use and create viable investment opportunities for the private sector.**
    - Scale finance, infrastructure, and regulation for standing-forest bioeconomies so they can compete with conversion-based land uses. Brazil's bioeconomy potential is estimated at US\$40–75 billion by 2030, but realizing it requires coordinated public policy, investment, market development, and private-sector engagement. (ICC Bioeconomy, 2025)
    - Increase value capture from forest-based community enterprises through processing, traceability, and market access. In Africa, the main constraint is often not resource availability but weak local value addition, informality , and

limited access to premium markets, which limits private-sector participation and scaling. (Systemiq)

- Regulatory measures such as EUDR and national due diligence frameworks are increasing market demand for deforestation-free products, reinforcing incentives for sustainable production systems

### (c) What experiences and best practices can be shared?

- **Governance models: large-scale enforcement works when sustained.**

- Brazil's PPCDAm is associated with ~80–83% deforestation reduction. (MMA; PRODES/INPE)
- Indonesia reduced net deforestation by 8.4% between 2020–2021 and 2021–2022 through a package combining the permanent moratorium on primary forests and peatlands, forest-fire control, rehabilitation and reforestation, and stronger law enforcement under the FOLU Net Sink 2030 framework. (KLHK)
- Colombia reduced deforestation in the Amazon by 38% between 2022 and 2023, from 71,725 ha to 44,274 ha, with IDEAM linking the decline in part to the Plan de Contención de la Deforestación and strengthened implementation of Conservar Paga. (IDEM)
- Brazil's Soy Moratorium agreement preserved more than 1.3 million hectares of forest, while deforestation fell 69% and soy area grew 344% between 2009 and 2022. (WWF-Brazil, 2026; Mongabay, 2026)
- Maintain and strengthen government-backed moratoria on new permits in primary forests and peatlands. Indonesia shows that these measures reduced deforestation by at least 50% since 2019, combining fire management and peatland protection (KLHK; Systemiq)
- Forest concessions show that sustainable forest management can reduce deforestation while generating jobs and public revenue. In Brazil's federal concessions (3.6 million ha), only 2% of the area was deforested by 2024, with 92% occurring outside concession boundaries; the model was also associated with a 62% increase in employment, ~4,800 jobs in 2023, and R\$240 million in public revenue since 2010. (Imaflora, 2026)

- **Financial models: results-based and jurisdictional instruments are proven.**

- Costa Rica provides one of the strongest proven cases of jurisdictional, results-based forest finance. The Green Climate Fund approved payments for 14.08 MtCO<sub>2</sub>eq of verified REDD+ results from 2014–2015, with proceeds reinvested into the country's forest policy and PES system. (Green Climate Fund; UNFCCC REDD+)
- Partnerships for Forests 1st phase (2015–2024), mobilised over £1.3 billion in private finance, supported more than 326,000 forest-dependent people, and brought 8.6 million hectares under sustainable management. (Partnerships for Forests)

- **Community and value chain models: smallholder inclusion is scalable.**
  - Honey, cocoa, and agroforestry models demonstrate that linking smallholders to structured value chains can increase incomes and improve compliance with deforestation-free standards. (*Systemiq*)

#### (d) How can conservation reflect country realities and IPLC rights?

- **IPLCs are central to forest outcomes and must be recognised as such — not treated as beneficiaries of mitigation.**
  - 67.4% of Brazil's deforestation occurs on private lands; IPLC territories show structurally stronger protection outcomes. (*MapBiomass*)
  - The TFFF commits to allocating at least 20% of disbursements directly to IPLCs, with dedicated governance structures and participation mechanisms.
- **Rights and tenure security for IPLCs communities are prerequisites, not co-benefits.**
  - Without legal land rights — whether held individually (e.g. Brazil's CAR-linked land titles, Peru's individual titling programmes) or collectively (e.g. Indigenous Territories in Brazil, Colombia's resguardos, Peru's native community titles) — land users cannot access finance, make long-term investments, or participate in carbon markets — securing tenure is a deforestation intervention in itself.
  - Strengthening tenure through land titling, cadastral systems (e.g. Brazil's CAR), and legal recognition of Indigenous territories and community forests has been associated with lower deforestation rates, making tenure reform a direct policy lever for forest protection, not a safeguard.
- **Finance instruments must be built for the actors who manage forests at the frontier.**
  - Smallholders and IPLCs currently receive 0.8% of global climate finance; purpose-built instruments — aggregated carbon platforms, outcome-based loans, climate-linked insurance — are needed as obligations, not pilots. (*CPI, 2023*)
  - Tenure Facility supported formal recognition of rights over 4.4 million hectares and strengthened tenure and governance across almost 34 million hectares in 2024.
  - GEF Small Grants Programme has supported over 28,000 grants, over US\$795 million in direct financing, and contributed to improved management of 94 million hectares between 2017 and 2023.
- **Strategies must address energy poverty as a structural driver.**
  - Where 60–90% of rural populations depend on biomass energy, forest protection without clean energy alternatives displaces poverty rather than reducing deforestation. (*FAO; CAFE*)