ALMA Brasil
ACCELERATING LAND-USE MITIGATION IN THE AMAZON

IETA

TRANSITION FINANCE
Ensuring Sustainability

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SCALING UP NCS ACTIVITIES IN THE BRAZILIAN AMAZON

LESSONS AND KEY FINDINGS FOR NESTING PROJECTS INTO JURISDICTIONAL PROGRAMS

MAKING NET ZERO POSSIBLE

EXECUTIVE SUMMARY

The *Accelerating Land Use Mitigation in the Amazon (ALMA) Brasil* project was launched in October 2023 as a collaboration between the Oil and Gas Climate Initiative (OGCI) and the International Emissions Trading Association (IETA), to address the urgent need for high-integrity carbon credits in the Brazilian Amazon, where land use change remains a major source of greenhouse gas emissions. Over the past two years, ALMA Brasil aimed to develop workable models for nesting REDD+ projects into jurisdictional programmes, promoting methodological and operational harmonisation, institutional strengthening, and integration with national and international markets.

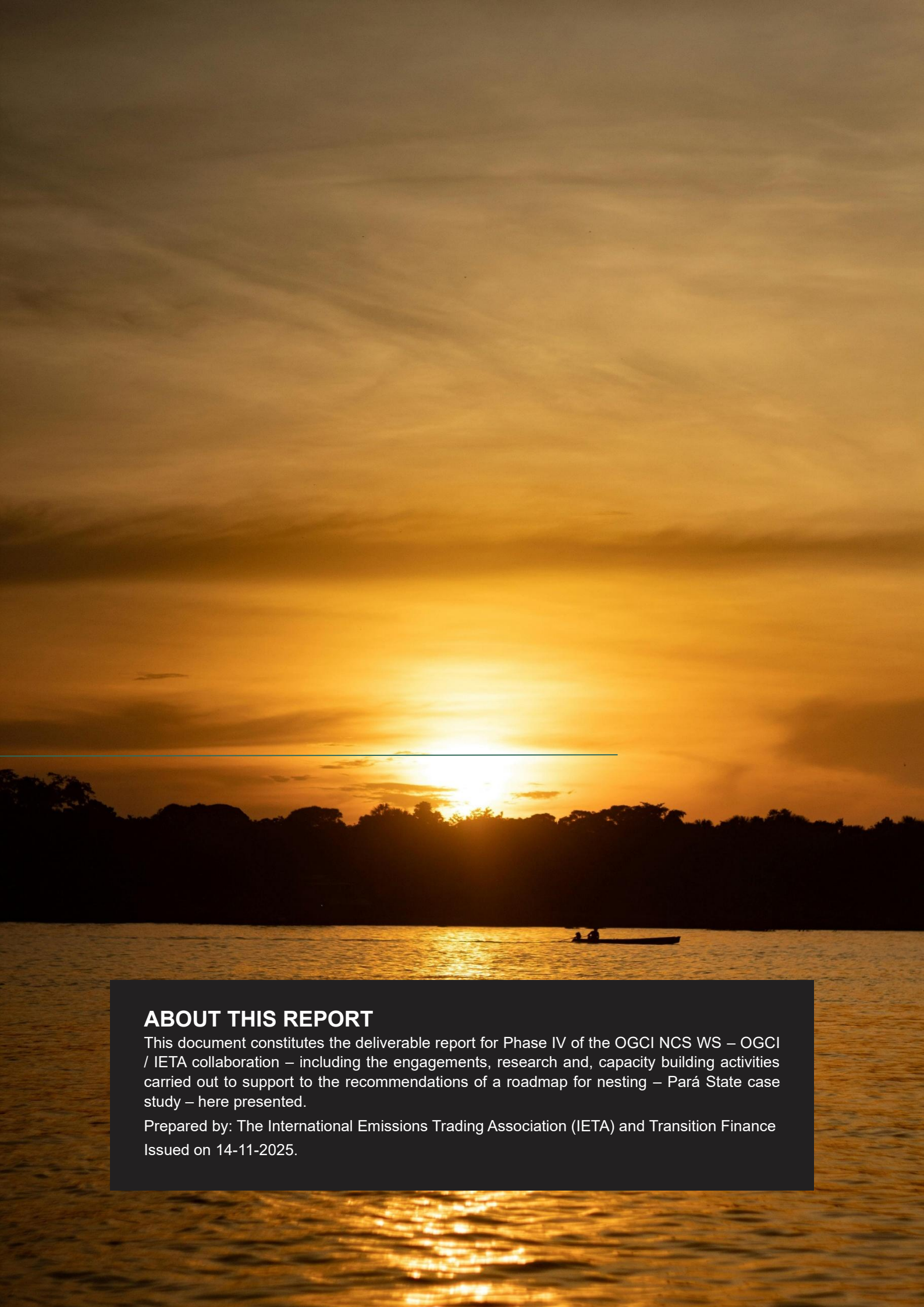
Considering the state of Pará as the focus area, the project facilitated the development of a shared understanding among governments, standards, project developers, and investors on what nesting could mean in practice. In the last few months, the activities evolved to focus on deepening collaboration among stakeholders. Through workshops and consultations, the participants assessed challenges and opportunities related to accounting and MRV alignment, safeguards and land tenure, and governance arrangements. The key findings from these exchanges informed the recommendations presented in this report – such as the need for establishing a deforestation risk map, developing a state-level tracking system, and advancing governance mechanisms to ensure transparency.

ALMA Brasil clarified concepts and built trust between public and private actors, but, revealed critical challenges for nesting. For example, while comparisons between jurisdictional and project methodologies show reasonable consistency at an aggregate level, there exists significant variation when looking at individual projects. The absence of a deforestation-risk map limits accounting and MRV further definitions such as establishing strategies for allocation or credit issuance limitation, while verification of safeguards and land tenure raises issues about how to ensure compliance without duplicating existing standards' requirements. Finally, the legal and regulatory framework for nesting is still under construction, the division of responsibilities, including between subnational and federal institutions, remains open and requires further clarification.

Beyond these structural issues, the project facilitated a broader understanding of the benefits of nesting and their importance for an efficient and harmonised system. For jurisdictions, nesting can support emission-reduction goals, enhance territorial planning, reinforce policy coherence, and attract new investments in sustainable land management. For projects, integration with jurisdictional REDD+ programmes can strengthen market positioning, lower reversal risks, provide access to state-supported mechanisms, and drive greater credibility with investors and buyers. These are important drivers that could encourage nesting.

Moving forward, ALMA Brasil should evolve to transform conceptual recommendations into operational systems. Priority actions include completing a deforestation-risk map and regional baselines for the state; establishing a technical team to draft regulatory proposals required for nesting and opt-out procedures; and creating a state-level tracking system interoperable with federal tracking systems. Continued dialogue among key stakeholders will be necessary to refine incentives, harmonise methodologies, and design credible approaches to promote long-term permanence.

The successful implementation of a nesting framework in Pará, alongside the lessons and relationships built through this initiative, can provide a strong foundation for future collaboration—within Pará and beyond—toward a coherent, transparent, and high-integrity system capable of scaling REDD+ across the Amazon.



ABOUT THIS REPORT

This document constitutes the deliverable report for Phase IV of the OGCI NCS WS – OGCI / IETA collaboration – including the engagements, research and, capacity building activities carried out to support to the recommendations of a roadmap for nesting – Pará State case study – here presented.

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01 Context and Objectives

Avoiding deforestation is a cornerstone of climate action, particularly in countries like Brazil, where land use, land-use change, and forestry (LULUCF) account for the largest share of national greenhouse gas (GHG) emissions—around 40%[i]. Addressing deforestation and improving territorial and land-use planning are among the key commitments set out in Brazil's revised Nationally Determined Contribution (NDC) [ii]. In this context, carbon markets can play a vital role as instruments to unlock financing for on-the-ground action, such as through investment in REDD+ activities.

However, carbon markets are undergoing a period of significant transformation. In response to a reputational crisis, quality and integrity have become renewed priorities. Methodologies are being reassessed, while new rules, requirements, and initiatives are emerging to harmonise approaches, enhance transparency, and build trust. This evolving landscape is reshaping the design and implementation of REDD+ projects, demanding stronger alignment with jurisdictional strategies, more robust monitoring systems, and clearer benefit-sharing arrangements.

The ALMA Brasil project was established within this evolving context. Launched in October 2023 as a collaboration between the *Oil and Gas Climate Initiative (OGCI)* and *the International Emissions Trading Association (IETA)*, its objective is to support the generation of high-integrity carbon credits in the Brazilian Amazon. The initiative focuses on developing strategies to nest carbon projects within jurisdictional REDD+ programmes, thereby promoting methodological harmonisation, institutional strengthening, and integration with national and international carbon markets.

The ALMA Brasil project adopted a phased approach to progressively identify priorities and refine the understanding of key challenges for nesting REDD+ projects within jurisdictional programmes. Each phase built on the previous one, allowing the project to focus its objectives and consolidate insights. The phases of ALMA are presented in **Figure 1.**

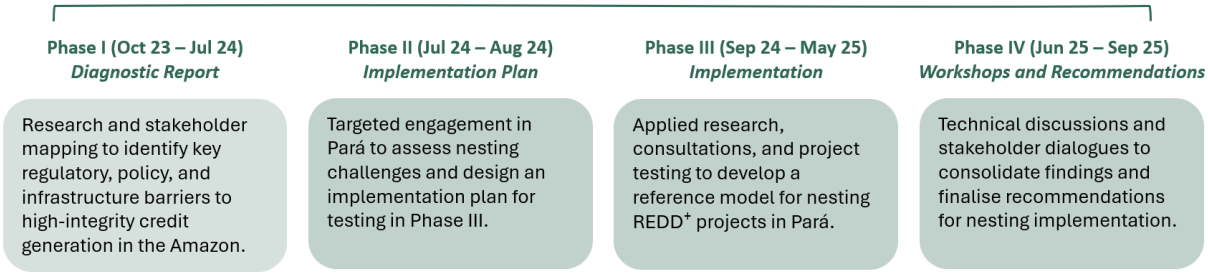

Figure 1 - ALMA Brasil project structure in phases.

Jurisdictional REDD+ integrates efforts to reduce deforestation and forest degradation across entire territories—such as states or provinces—under a unified accounting and monitoring framework. By aligning public policies and private initiatives, it promotes consistency, transparency, and scalability in emission reductions, ensuring that forest-carbon mitigation is implemented coherently and with high integrity.

Iin Pará is that the State is developing its Jurisdictional REDD+ Programme[iii] under ART TREES, as a strategy to attract finance for deforestation control. An Emission Reductions Purchase Agreement (ERPA) was signed with the LEAF Coalition for the

first crediting period (2023-2027), with credits will be generated once the programme is fully implemented and monitored. Achieving the intended emission reductions requires effective coordination between public and private efforts. Projects can deliver targeted actions in high-risk areas, while the state can reduce the risk of leakage and facilitate long-term permanence through jurisdictional policies. Harmonizing these levels is critical, as Pará hosts the highest number of Voluntary Carbon Market (VCM) REDD+ projects in Brazil – 42[iv] certified by Verra or Cercarbono

Without integration, REDD+ activities risk fragmentation and market uncertainty. This risk is heightened by two elements governing REDD+ projects and programmes: 1) Federal Law No. 15,042/2024, which grants private landowners the right to exclude their lands from jurisdictional programmes; and 2) the ART TREES standard, which requires states to subtract credits from independent projects from the total issued by the programme[v]. Without alignment, projects and jurisdictional programmes could operate under different systems, producing credits with distinct characteristics and undermining confidence.

To address these challenges, Pará is advancing its approach by promoting high-quality REDD+ projects that complement and strengthen its evolving jurisdictional strategy. The state plans to recognise projects meeting specific criteria through a "Pará Nested" endorsement, ensuring consistency between project-level actions and the jurisdictional programme. As a first step in this process, Pará has already indicated it will recognise all verified or issued REDD+ credits for the 2023 vintage.

This report summarises key findings from the ALMA Brasil project, presents a roadmap for establishing a nesting frameworks based on Pará's experience, highlights the remaining challenges in Pará and provide recommendations to fully operationalize nesting in the state in a way it can become a reference for other jurisdictions.

02 Key Findings of ALMA Brasil

2.1. Nesting approaches and benefits

There is no official definition of nesting, but the term generally refers to efforts to align REDD+ activities across multiple scales. In practice, it encompasses several interrelated aspects:

- Integration of project, subnational, and national actions
- Consistency in carbon accounting
- Avoidance of double counting and leakage
- Alignment of social and environmental safeguards
- Strengthened integrity in REDD+ implementation

Nesting is not a new concept in climate policy, yet it remains the subject of active debate as jurisdictions and standards continue to explore ways to implement it effectively, with only a few examples of implementation worldwide (see Table 3 in the Appendix). Notably, most existing experiences involve national-level jurisdictional programmes, which differs from the situation in Brazil, where subnational governments—particularly states—are developing their own frameworks, often using the ART TREES standard.

ART TREES defines different scenarios under which jurisdictions and projects can decide to operate in the same territory under three broader options:

- **Fully Nesting:** Projects are fully integrated into the jurisdictional programme and do not participate in other GHG programmes.
- **Partially Nesting:** Projects align with the jurisdictional baseline or limit issuance under other programmes.
- **Non-Nesting:** Projects operate independently and are not aligned with the jurisdictional programme.

While jurisdictions are required to discount project-level results from their programmes, they have some flexibility in determining how to ensure consistency with jurisdictional accounting. Conversely, projects may also choose to operate independently of the Jurisdictional REDD+ System.

In Pará, the state is in the process of submitting its TREES Registration Document for the 2023–2027 crediting period, including its first monitoring period (2023). Although specific provisions for nesting for the entire period have not yet been defined, the state, with the support of ALMA Brasil, has already acknowledged the importance of creating an enabling environment for projects to contribute to its jurisdictional objectives—enhancing market integrity, consistency, and trust. As such, Pará has indicated it will recognize all emission reductions verified or issued by private projects in 2023 according to ART TREES standard requirements and ensure a smooth transition towards full nesting in the future. At this stage, a partially nesting approach appears to be the most feasible option for the state to evolve from a non-nesting context to a nested one and addressing the technical challenges to implement such an approach has been one of the priorities of ALMA Brasil.

One of the key activities of the ALMA Brasil project was to raise awareness among stakeholders about the mutual benefits of nesting—demonstrating how it can create a win-win situation for both the state and project developers. This process helped build trust and a shared willingness to advance nesting discussions, laying the groundwork for an efficient design and smooth implementation of a future nesting framework. Understanding these mutual benefits of nesting is fundamental for a cooperative implementation process. **Figure 2** illustrates how programmes and projects can derive complementary benefits from this approach.

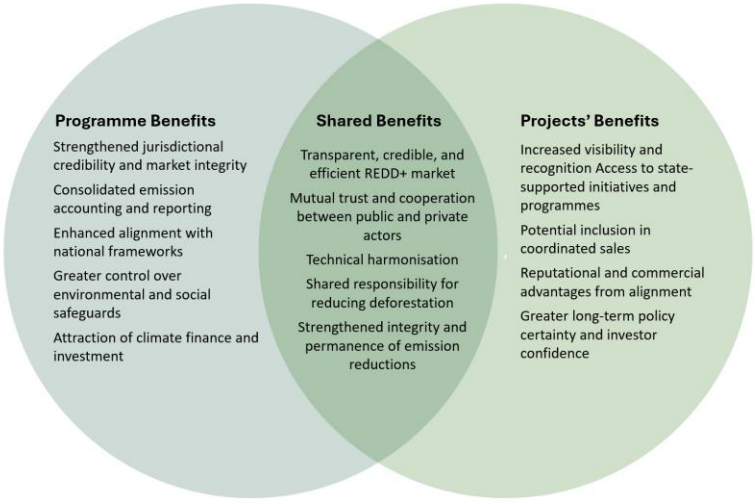

Figure 2 - Nesting benefits from different perspectives.

In this context, beyond providing technical support, the ALMA Brasil project acted as a practical exercise to test and validate the process of developing a nesting strategy. Moreover, it identified key elements and priority areas essential for advancing the framework. The following section presents these elements and main findings, relevant to both jurisdictional programmes and project-level initiatives.

2.2. The key findings from ALMA Brasil

The key findings presented here summarise the last advances of the ALMA Brasil Project (including Phase IV), building previous analyses and stakeholder engagements. More detailed literature reviews and technical assessments are available for consultation in the Phase III report of the project. Comparing technical research, consultations, and workshops, the process generated important insights into the institutional and operational aspects of nesting, highlighting both progress achieved and remaining challenges that inform the recommendations in this report.

2.2.1. Consensus building and engagement

Building consensus among diverse actors was essential to advancing the nesting agenda in Pará. The ALMA Brasil project engaged state institutions, project developers, crediting standards, investors, and civil society through bilateral meetings, sectoral exchanges, and multi-stakeholder workshops. These discussions helped align expectations, identify concerns, and clarify what is needed for a trusted and implementable framework.

Workshops were more productive when guided by clear objectives and supported by preparatory materials, as stakeholders respond better to concrete propositions than to open-ended questions. In-person sessions were particularly effective for building trust and collaboration, while bilateral meetings and document-based consultations allowed for more detailed technical input. Together, these formats created a constructive environment that encouraged open dialogue and informed participation (workshop summaries are available in the Appendix).

Despite these advances, the formats used were not fully suited to reaching final agreement. Complex topics such as accounting consistency, safeguards, and permanence remain unresolved globally, which made participants cautious about endorsing specific solutions. This hesitation was reinforced in group settings, where diverging interests limited consensus-building.

Moving forward, a more effective approach could combine ongoing bilateral engagements with a smaller working group composed of representatives from key constituencies (e.g., the State of Pará, project developers, and standards bodies). This group could develop concrete proposals to be reviewed by the broader stakeholder community. While requiring additional time and resources, such a format would enable a more deliberate and solution-oriented discussion of complex issues.

2.2.2. Technical support and capacity building

The nesting discussions showed that capacity building is not only a supporting activity but a core element of implementation. Strengthening technical understanding across actors was essential to enable informed dialogue and coherence between jurisdictional and project-level approaches.

A two-way learning dynamic proved highly valuable Project developers gained on the state's policies, procedures under the Jurisdictional REDD+ Programme, while the state benefited from insights into existing project-level practices through exchanges with standards and verifiers. Presentations from crediting standards clarified methodological updates, and verifiers shared practical lessons from field experience. This reciprocal fostered trust, reduced information gaps and aligned expectations around how nesting can function operationally in Pará.

A remaining concern is how to ensure that this process can withstand potential political changes in the future, highlighting the need for a technical team within the government that operates independently of the political administration in power.

2.2.3. Governance structures

Implementing a nesting framework requires understanding how existing institutional and governance structures can support it. In Pará, the Secretary of State for the Environment and Sustainability (SEMAS) coordinate the Jurisdictional REDD+ Programme, while the Company of Environmental Assets of the State (CAAPP) will manage programme-related funds.

The state aims to establish an efficient and resource-conscious system, based on clear requirements to ensure environmental integrity and alignment between projects and the jurisdictional programme. However, this pragmatic approach depends on strong institutional capacity, transparent procedures, and legal certainty for market recognition.

Governance structures should be participatory and open, developed through a continuous dialogue among project developers, standards, verifiers, and other relevant market actors. This inclusiveness helps avoid the development of new frameworks in isolation from those already operating in the voluntary carbon market. Jurisdictions can enhance efficiency and credibility by leveraging existing market infrastructure, such as data sharing or aligned procedures among standards.

A complementary element to strengthening governance relates to financial transparency. It will be necessary to establish a specific legal instrument obliging programme participants to ensure traceability of financial flows associated with any commercial or market operation involving carbon credits, whether originating from the jurisdictional programme or from nested projects. Such a mechanism would reinforce integrity, ensure benefit sharing provisions and enhance investor confidence in the system.

Despite progress, Pará still needs a specific regulatory instrument for nesting and stronger institutional coordination. Aligning state frameworks with federal regulations - particularly as Brazil advances its national emission trading system (SBCE) and Article 6 engagement strategy - remains essential for coherence and market confidence.

2.2.4. Accounting and MRV, safeguards, and land tenure challenges

► ***Accounting and MRV***

A key technical challenge for nesting lies in reconciling jurisdictional and project-level methodologies for quantifying emission reductions and removals. In Pará's, the Jurisdictional REDD+ Programme is under development using ART TREES, which applies national-level reference data (FREL) and official monitoring systems, whereas most project-level activities in the territory use Verra or Cercarbono, which differ in how they allocate deforestation risk, define forest eligibility, and apply datasets and deforestation detection thresholds, among other distinctions (see more in Table 4 of the Appendix).

To meet ART TREES requirements, the jurisdiction must establish a baseline and compare it with monitored results for each period. To assess emission reductions across the territory, the state needs to allocate data through a deforestation risk map or regionalised baselines. This work has been part of the discussions – but there is no clarity when that will be conducted.

On the project level, most Verra projects currently rely on VM0015 and VM007, with a

gradual transition expected toward VM0048[vi], which creates a jurisdictional baseline from which projects are allocated their own baselines. Cercarbono is also updating its REDD+ methodology, though differences with the State's accounting approach are expected to remain. Understanding how these methodological variations affect jurisdictional quantification remains a core technical challenge.

During Phase III, the ALMA Brasil project analysed differences in accounting across scales — including emission factors, carbon pools, datasets, and measurement units — and identified the need to assess the potential impact of projects transitioning to VM0048 (using VMD0055 activity data[vii]) compared to the jurisdiction's projected emission reductions under the Brazilian FREL, as required by ART TREES.

Building on this recommendation, ALMA Brasil commissioned *Space Intelligence*[viii] to independently compare baseline deforestation and potential credit issuance under two data sources: (i) PRODES, used to construct the state's jurisdictional baseline following ART TREES rules; and (ii) Verra's activity data[ix] (VM0048/VMD0055). The study found that, at the jurisdictional scale, baseline deforestation rates and credit issuance potential were broadly consistent across both approaches, with VM0048 producing approximately 15% more credits than those generated when using the PRODES data[x]. When comparing the area covering 24 selected projects, the difference between the two data sources was smaller with the PRODES data generating a greater number of potential credits—18.3 million tCO_2e/year under Verra VM0048 versus 19.1 million tCO_2e/year under ART TREES (using a subnational adaptation), thereby showing reasonable alignment at the aggregate level (more information available in Table 5 of the Appendix).

At project level, however, the variation was substantial. In a subset of six projects, credit issuance differences ranged from -72% to +94 (negative numbers meaning higher VM0048 results and positive results meaning higher PRODES results). The main driver of the discrepancies was forest definition: PRODES included only losses of primary forests, while Verra also accounts for secondary forests losses of (i.e., areas that have grown back after initial deforestation). Additional variation stemmed from different methods for measuring forests, biomass estimations and the inclusion of cross-border deforestation risk[xi] (more information available in Table 6 of the Appendix).

Overall, the assessment indicated that a deduction-based nesting approach—subtracting project results from jurisdictional totals - appears technically feasible without compromising integrity at the macro level. Still, the variability across projects highlights the need for further calibration, particularly for methodologies such as Cercarbono, which were not fully assessed. Questions such as limits to credit issuance or whether to compensate projects that issue fewer credits than the jurisdictional baseline would allow remains open and should be addressed in further discussions. Continued technical collaboration among the state, crediting standards, and independent experts will be essential to harmonise accounting and MRV procedures and ensure fairness across scales. Besides that, for any assessment of the future allocation of credits to projects' areas, the development of a detailed regionalised baseline or a deforestation risk map will need to become a priority.

Additionally, as most credits issued between 2023 and 2027 will still use legacy methodologies, the project baselines documented in projects could serve as reference points to evaluate alignment with the jurisdictional baseline. Comparing these baselines will be crucial for defining nesting rules and harmonising accounting practices, including eventual different approaches for ongoing and new projects.

A final topic present in the discussions is how to treat Avoided Planned Deforestation (APD)

projects. Those emissions reductions come from areas that could be deforested by law[xii] and, for that reason, do not have the same deforestation drivers and rates as Avoided Unplanned Deforestation (AUD) activities. Jurisdictional calculations do not differentiate the types of deforestation – accounting for everything that happened in the territory. Also, methods such as VM0048 still do not account for the APD activity type (it is necessary to keep using the former method – VM0007). For this reason, reductions from APD projects might require different treatment.

► Safeguards

Safeguards remain one of the most sensitive and complex dimensions of REDD+ implementation, especially in contexts involving Indigenous Peoples and Local Communities (IPLCs) and collective territories. Their effective application is fundamental to ensuring environmental integrity, social legitimacy, and the long-term sustainability of both jurisdictional and project-level initiatives.

The state[xiii] of Pará is developing a comprehensive safeguard system under its Jurisdictional REDD+ Programme, consistent with ART TREES requirements for alignment with the Cancún Safeguards. Indicators are organized into three dimensions: structure, process, and results – and linked to existing public policies and institutional arrangements, ensuring that safeguard implementation is integrated into the State's governance framework rather than treated as a separate process.

At the project level, REDD+ initiatives must comply with the safeguard requirements established by the standards under which they are certified—primarily VCS, CCB, and Cercarbono. Although not all of these are explicitly based on the Cancún Safeguards, their underlying principles are generally aligned (see the Appendix for more information). During Phase III of the ALMA Brasil project, in partnership with TNC, ALMA Brasil conducted a practical assessment to analyse how individual projects demonstrate compliance with safeguard criteria. This exercise reviewed the types of documents developers make available to verification bodies, such as management plans, consultation records, and social and environmental impact assessments.

Because such documentation often contains confidential information, it is not publicly available through project registries. Moreover, the projects that collaborated in this phase[xiv] were not located in collective territories[xv], meaning that evidence such as Free, Prior and Informed Consent (FPIC) records or community representation documentation was not included. These limitations underscored the need for further analysis on how to assess safeguard compliance in more complex territorial contexts.

Building on these lessons, discussions focused on defining the core information and verification requirements that could serve as minimum evidence for safeguard assessment withing a future nesting framework. The objective is to create a streamlined review process centered on essential principles – such as participation, land rights, and grievance mechanisms – while avoiding overstepping project confidentiality or duplicating verification efforts already undertaken by standards.

The recent CONAREDD+ Resolution 19/2025, which establishes common safeguard requirements for projects and jurisdictional programmes, provides a solid basis for alignment. By setting similar guidelines for activities in collective territories, it helps clarify roles and responsibilities, reduce overlaps, and offer procedural protection for both levels of implementation. It also creates an opportunity to develop a shared monitoring structure, allowing project-level information to feed into jurisdictional reporting and strengthen transparency and accountability. Importantly, only six REDD+ projects in Pará are currently located within collective territories—meaning this process is

unlikely to be overwhelming at its initial stages, providing room for gradual testing and refinement.

Lessons from other jurisdictions, such as Paraguay[xvi] and Honduras[xvii], further demonstrate the valued of standardised safeguards frameworks – stablishing a common set of themes to be reported across both jurisdictional and project levels, supported by specific implementation guidelines. Inspired by these examples, Pará could explore the development of joint reporting and grievance mechanisms, creating a more coherent and trusted safeguard architecture that supports effective implementation at all scales.

►*Land Tenure*

Land tenure is included under the broader theme of safeguards but remains one of the most critical and sensitive dimensions for ensuring integrity in REDD+ implementation. Because of its direct link to ownership rights and legal certainty, it was treated as a stand-alone focus area under the ALMA Brasil project during the engagement.

The main objective was to understand how to implement a process that guarantees that REDD+ projects have legitimate ownership and operate only on lands with clearly defined tenure. During Phase III, the project team—comprising IETA, SEMAS, IPAM, and TNC, with support from specialised law firms—assessed what could constitute the minimum documentation required from projects depending on the type of landholding. The categories considered included: private property, agrarian reform settlements, conservation units, quilombola territories, Indigenous lands, and possession.

This assessment resulted in an initial checklist of documentation types to verify tenure regularity[xviii]. Discussions later evolved to include the Land Regularisation Institute of Pará (ITERPA), which began drafting specific guidelines for REDD+ projects implemented on lands under State jurisdiction. Lands under federal responsibility would remain subject to separate national regulations.

The dialogue focused on how projects currently demonstrate compliance with land tenure requirements and how the state could move forward in establishing a process that reduces potential reputational risks in the future. Crediting standards highlighted that having territorial guidelines could be useful for verifiers to better interpret local contexts and land governance realities. However, concerns were also raised about implementation timelines and potential financial implications, particularly whether additional verification steps might affect project cash flows or operational viability. To avoid that, it was recognized that streamlined procedures to this review and approval process could be beneficial for both sides, also avoiding that areas without clearly defined tenure remain more vulnerable to deforestation threats.

The discussions underscored that ensuring land tenure regularity is not only a legal requirement but also a precondition for maintaining market credibility and social legitimacy, reinforcing the importance of a balanced, practical approach to integrating land tenure verification into the broader nesting framework in a way that also contributes to streamlining land tenure regulation.

2.2.5. Strengthening long-term permanence

Nature-based Solutions (NBS), including REDD+, face lingering concerns around the permanence of the reductions or removals achieved. This risk has been highlighted recently by the draft standard for addressing non-permanence/reversals under Article 6.4 of the Paris Agreement, which has raised concern amongst stakeholders that NBS might be excluded altogether from some carbon markets because they may not be able to demonstrate "negligible risk of reversal".[xix]

Unless there is some other incentive structure to ensure the outcomes from these efforts endure overtime (e.g., the development of a sustainable supply chain for forest-based products such as timber or agroforestry), NBS activities risk coming to a halt once there are no more revenues from the sale of carbon credits, thereby putting at risk the hard work of conserving and/or restoring forests for years.

One way to reduce that risk would be to put in place plans that would complement existing efforts addressing permanence and ensure continuity of project/program operations once these come to the end of their crediting periods. Carbon markets are beginning to develop innovative solutions, such as The Permanence Trust proposed by the American Forest Foundation[xx]. Such solutions could be readily adopted and improved upon by REDD+ projects and jurisdictional programs.

The idea of creating a dedicated trust fund to ensure long-term continuity of REDD+ project and programmes operations was shared among stakeholders, who expressed divergent views. On one hand, the proposal was seen as potentially bringing important benefits: (i) directly addressing concerns about the long-term permanence of the outcomes of REDD+ activities in Pará, including perhaps those set out by the UN's Supervisory Body in respect of Article 6.4; (ii) enhancing the marketability and value of Pará's REDD+ credits (both jurisdictional and project-based) by providing a structural solution to long-term reversal risk; and (iii) lowering project risk ratings, thereby reducing the volume of credits that need to be deposited in buffer accounts, which would free up additional units for sale to generate further revenue.

At the same time, stakeholders widely recognised that establishing a trust fund would require creating new institutional infrastructure and careful design to ensure added value. Key considerations included: the need for a clear assessment of existing mechanisms to confirm that a genuine gap exists; the identification of an appropriate managing entity, ideally insulated from political cycles—such as a third-party institution like BNDES or an independent organisation; and the definition of fair contribution levels, balancing potential costs to developers with expected benefits. Another important consideration was whether contributions should apply to all projects given that those with sustainable revenue models might not require support, while others—such as pure forest conservation—could benefit the most. Finally, stakeholders stressed that the use of proceeds must be strictly directed toward long-term forest conservation to ensure transparency and environmental integrity.

Figure 3 summarizes the key findings of the five elements discussed above.

Figure 3 - Key findings of core elements for nesting.

2.3. Discussion regarding a sequencing for nesting

The roadmap outlined during ALMA Brasil primarily addresses the designing of a nesting framework, through gathering input from various stakeholders, mapping out the pathway for nesting in the jurisdiction, and establishing its foundational elements. The implementation of the nesting framework should follow naturally, through the execution in distinct, progressive stages that incorporate governance, infrastructure, monitoring and evaluation, continuous improvement, and so on. While many of these elements have been discussed during ALMA's work, a concrete design for the nesting framework is still required so that the implementation phase can proceed.

A further consideration in sequencing is deciding which projects to include first as pilots. Because projects differ in complexity, applying a single set of criteria across all of them may not be feasible. For example, projects implemented in collective territories or those that directly affect IPLCs require heightened caution regarding safeguards. It will be necessary to discuss how to verify that safeguards meet legal and ethical standards without introducing excessive bureaucracy

for either side. Different approaches could also be applied to existing projects (designed under former versions of standards and methodologies) and future projects.

Either way, it could be useful to simplify the nesting approach, by starting the framework with less complex projects. This would allow for testing of accounting, MRV, and governance elements under less complex tenure and safeguards circumstances. This initial phase could also permit the State to experiment with pilot governance and infrastructure arrangements. To support this, the state would need a registry of existing projects and a screening mechanism that captures key project attributes, such as:

- Number of projects and geographic distribution
- Standard and methodology used
- Project start dates and crediting periods
- Current status
- Activity type (e.g. AUD or APD)
- Land tenure type (private, collective territory, public)
- Estimated emissions reductions (total and per year)
- Issuances (total and per year)
- Deforestation rates and emission factor data

With this information in hand, the State can assess which projects meet the baseline criteria (as defined in Section 3) and determine an implementation sequence, where projects initially eligible would be able to go through the test procedures and gradually refine criteria before expanding. A second stage would be to draw on the lessons learned from the first stage and in parallel with ongoing stakeholder engagement (especially with IPLCs), the framework may be extended to projects with higher complexity – for example those subject to a more robust set of safeguard criteria.
Additionally, the state must establish internal audit mechanisms and periodic reviews to ensure the system's integrity and whether the goals of the framework are being achieved over time.

03 Core Recommendations for the Criteria for Projects to Nest

Drawing on the discussions and findings above, the following considerations outline recommended criteria to inform the inclusion of projects within the nesting framework.

3.1. Aligning carbon accounting and MRV

To ensure environmental integrity, it is critically important that both Pará and projects use similar accounting measures. Pará has defined its baseline in accordance with the Brazilian FREL, which is based on national databases and methodologies, such as PRODES/DETER. As such, any projects nesting in Pará will need to use a baseline setting approach that is similar or consistent with the way Pará is setting its baseline[xxi]. In summary, the recommended criteria for the accounting and MRV aspect are in **Table 1**, together with additional information and initial impressions from the engagements.

Table 1 - Recommended criteria for accounting and MRV.

Criterion	Description	Stakeholder Reactions / Notes
#1 – Alignment with Pará's baseline and approach	Projects should use methodologies consistent with Pará's jurisdictional baseline (based on FREL/PRODES/DETER) to ensure coherence and comparability.	No objections raised; broad consensus on the need for methodological alignment.
#2 – Consistency with integrity frameworks	Projects should reflect principles from recognised integrity standards (e.g. ICVCM, Article 6.4, CORSIA) while maintaining flexibility as such rules evolve.	Stakeholders cautioned against rigid adherence; recommended flexible reflection of these criteria.
#3 – Consistent issuance relative to Pará's baseline	Consider limiting credit issuance to a proportion of what Pará's baseline would allow to maintain consistency across scales. Particular attention is needed for APD projects, which may initially apply a 1:1 deduction.#1	Concerns raised about how to define the percentage cap; consensus that further quantitative analysis is required.#2

#1 One point of attention regards Avoided Planned Deforestation projects. Jurisdictional baselines account for all deforestation in the territory (planned and unplanned). APD projects prevent deforestation of areas that are legally allowed to be deforested. In addition, Verra did not release a module for APD under VM0048. Since this aspect is still unclear and – APD projects could have a higher impact over credit issuance. For that reason, one proposal is to allow a 1:1 subtraction in the first crediting period.

#2 Concerns were raised by many stakeholders regarding how this percentage would be determined or if a percentage should be set. Several suggestions indicated that a deeper quantitative analysis is needed.

3.2. Integrating safeguards and land tenure

An efficient system must ensure that safeguards are met both at the level of individual projects and within the jurisdictional programme, even when these operate at different scales. In both cases, it is necessary to comply with the requirements established under Law No. 15.042/2024 and CONAREDD+ Resolution No. 19/2025.

In addition, the State of Pará, within its jurisdictional approach, has adopted the ART TREES standard, which uses indicators primarily based on the Cancun Safeguards. The State's framework encompasses fifty indicators, ensuring transparency, integrity, and compliance in the implementation of safeguards. The specific recommendation for the state in **Table 2**.

Table 2 - Recommended criteria for safeguards and land tenure.

Criterion	Description	Stakeholder Reactions / Notes
#1 – Safeguards in IPLCs territories or with direct impact in IPLCs[#1]	Projects operating within or affecting Indigenous Peoples and Local Communities (IPLCs) must follow state safeguards guidelines or a state-endorsed framework ensuring full participation and respect for FPIC, grievance mechanisms, transparent benefit-sharing, and culturally appropriate engagement.	Concerns about how each safeguard item would be assessed and by whom. Stakeholders noted that the CONAREDD+ Resolution 19/2025 already defines state-level procedures and should guide further clarification on documentation and timelines.
#2 – Demonstration of property rights	Projects must clearly demonstrate property rights, following ITERPA's land regularisation guidelines for state lands and federal legislation where applicable, ensuring legal validity and tenure security.	Questions about the regulatory strength of non-binding guidance and possible administrative burden. Stakeholders stressed equal treatment with other land-based activities in Pará.
#3 – Connection between grievance channels	Establish clear links between jurisdictional and project grievance systems. Pará's planned REDD+ Ombudsman could function as a central hub for receiving project-related grievances.	Divergent views: some private sector actors favour a reporting system, while the state tends to prefer a compulsory, unified mechanism with defined reporting procedures and deadlines.

#1 This recommendation is specific to the case of projects developed within IPLCs territories or with direct impact in IPLCs - follow State safeguards guidelines[xxii] or an existing safeguards guideline endorsed by the State[xxiii] and that ensures the full participation of them in the decision moments. It considers the following elements: (i) Free, Prior and Informed Consent (FPIC) effectively implemented; (ii) Functioning grievance mechanism; (iii) Governance spaces and with full and meaningful participation of communities; (iv) Contracts in accessible, culturally appropriate language; (v) Full transparency in benefit-sharing and outcomes; (vi) Provision for independent technical and legal advice; (vii) Guarantee of traditional land-use practices; (viii) Quantified leakage and reversal risk assessments with mitigation strategies; (ix) Clear and monitored community benefit plans. (x) Alignment with UNFCCC "Cancún Safeguards".

Together, these **proposed criteria** form the foundation for recognising REDD+ projects as *Pará Nested*. They aim to ensure consistency in carbon accounting, reinforce social and environmental integrity, strengthen the legal certainty of project implementation, and ensure long-term permanence. Having established the main requirements for alignment, the next section highlights the benefits that projects could secure by meeting these criteria, ensuring that participation in the State's Jurisdictional REDD+ Programme is both credible and attractive to developers and investors.

04 Potential Benefits for Nested Projects

Projects that achieve *Pará Nested* status will benefit from direct recognition and institutional support from the state of Pará. This recognition signals alignment with the state's climate and forest strategies, strengthening credibility, transparency, and integration across public and private initiatives. In this sense, the state could:

- List *Pará Nested* projects on its official website.
- Promote *Pará Nested* projects to investors and carbon credit buyers, highlighting how these initiatives complement and reinforce the State's climate and forest policies.
- Engage with the Federal Government to explore the possibility of recognising *Pará Nested* projects for the generation of CRVEs under the Brazilian Emissions Trading System (SBCE).
- Potential collaboration with *Pará Nested* projects to facilitate credit sales.
  Support the long-term permanence of *Pará Nested* projects beyond their crediting periods, through planned state-level activities and policies.

On the other hand, achieving *Pará Nested* status will invariably strengthen a project's market position, as it demonstrates direct alignment with the State's efforts to combat deforestation—addressing one of the main criticisms often directed at REDD+ projects, namely that they operate in isolation from government action. *Pará Nested* projects will also benefit from joint marketing and communication initiatives led by the State.

Nested projects are expected to face reduced risks of reversals, potentially allowing for lower individual buffer contributions in the future. Close collaboration with the government will promote mutual learning and enhance the integration between public and private efforts to protect forests and advance low-carbon development in Pará.

By defining and promoting clear benefits for *Pará Nested* projects, the State reinforces its commitment to increasing collaboration and transparency in REDD+ implementation. These incentives not only recognise the contribution of projects to achieving jurisdictional goals but also encourage alignment with high-integrity principles at different scales.

05 Roadmap for Nesting

TO OPERATIONALISE AN EFFICIENT AND TRANSPARENT NESTING FRAMEWORK, IT IS ESSENTIAL TO DEFINE A CLEAR PATHWAY THAT CONNECTS POLICY DESIGN, INSTITUTIONAL READINESS, AND PRACTICAL IMPLEMENTATION.

Building on the lessons learned through the ALMA Brasil project, this roadmap outlines the sequential steps a jurisdiction can follow to prepare for and manage the nesting of REDD+ projects within its jurisdictional programme. The proposed stages emphasize inclusive engagement, structured governance, and continuous dialogue—ensuring that the system evolves through collaboration, technical rigor, and alignment with national and international best practices.

As proposed in Section 2.3, the steps presented in **Figure 4** should be thought in a chronological order, starting with activities that are more focused on the design of a nesting roadmap (short-term), to be implemented as a full nesting framework in the mid and long term. The timeline definitions can vary depending on the stage of development of a jurisdiction, but, based on Pará's experience it could consist of the following: short-term: less than 12 months; mid-term: from 12 months to 24 months; and long-term: after 24 months.

The experience gained through this process offers valuable insights that can be adapted and replicated by other jurisdictions developing their own REDD+ frameworks. While challenges remain — particularly regarding the definition of operational procedures and institutional coordination — establishing a more standardised approach to nesting across states would strengthen coherence, improve efficiency, and contribute to more robust national accounting under Brazil's jurisdictional system. Such alignment will help maximise environmental integrity and financial outcomes, while reinforcing coordination between subnational and federal levels.

Figure 4 presents an overview of these steps, highlighting the main actions within each priority theme. It is important to note the progress achieved by the State of Pará: most activities under the stages "Preparing the Ground and Inclusive Dialogue" and "Defining and Testing Initial Criteria" have mostly been undertaken. Remaining challenges—such as advancing deforestation risk mapping, refining discussions on credit limitations, and considering the potential phasing of nesting—must still be addressed for the state to move forward. Nonetheless, the efforts made so far have established a clear and objective pathway toward achieving the proposed goals.

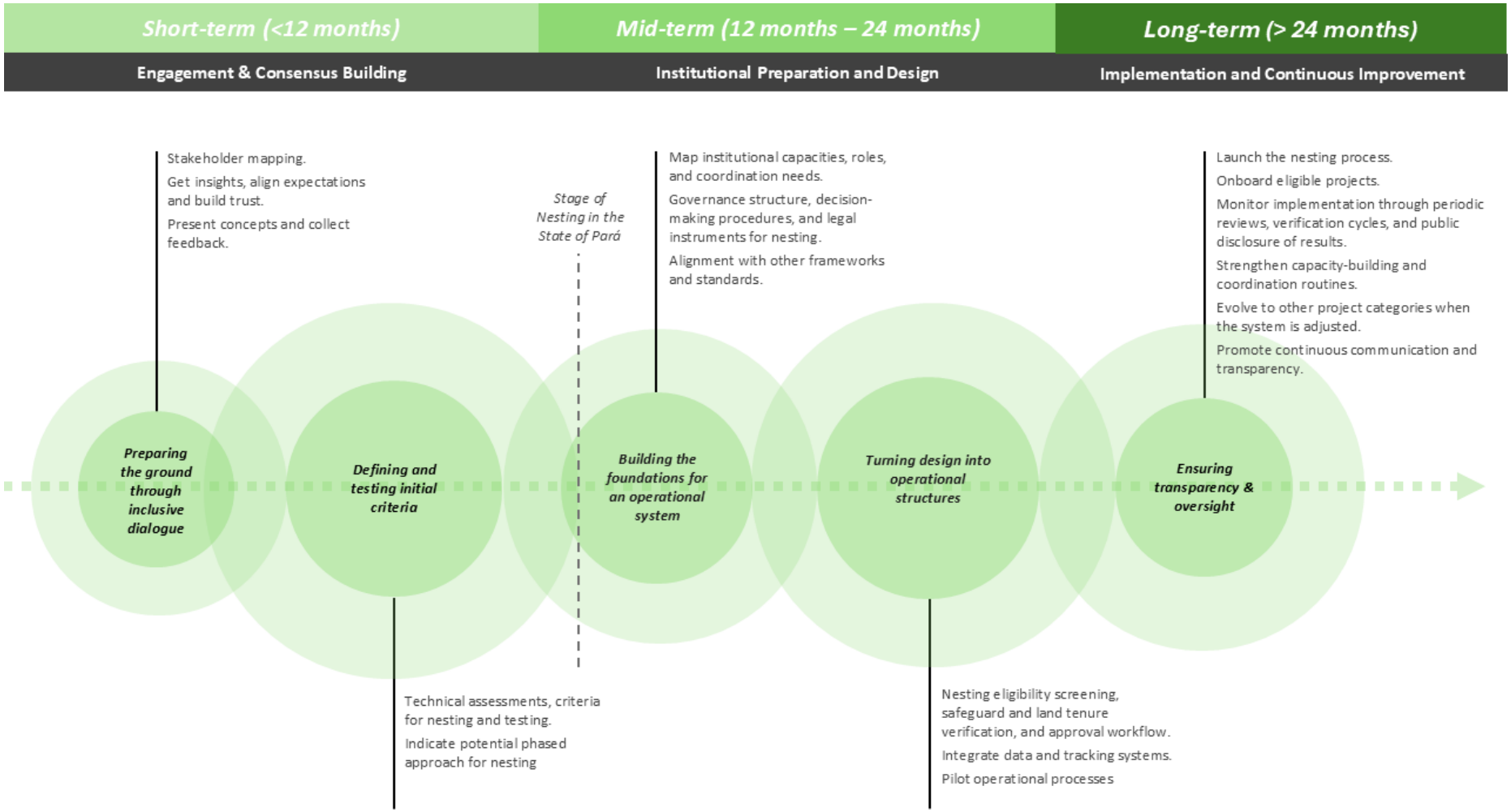

Figure 4 - Proposed roadmap for nesting. 5

06 Options for Projects not Willing to Nest

The discussions and recommendations presented in this report focus on projects that may be nested into Pará's Jurisdictional REDD+ Programme. However, it is also necessary to consider situations in which projects remain outside the programme but still interact with its accounting system. In these cases, the emission reductions generated by such projects are deducted from the state's total results to avoid double counting. This process, known as subtraction, can occur under two non-exclusive situations:

a. Projects accounted for under ART TREES deduction rules

Under the ART TREES, jurisdictions must subtract the total volume of verified emission reductions generated by independent projects within the same accounting area during the relevant period — a 1:1 deduction. For this rule to be applied effectively, Pará must maintain an updated record of all REDD+ in its territory and identify those to be included in the deduction. This type of measure can be used for verified credits while the nesting criteria are not yet validated. The same logic may also apply to Avoided Planned Deforestation (APD) projects, ensuring consistency and transparency across all accounting processes.

b. Projects requesting formal opt-out under Law No. 15,042/2024

Article 43 of this gives landowners the right to formally exclude their areas and associated carbon credits from jurisdictional accounting. To operationalise this option, the State will need to define specific procedures and regulations in coordination with CONAREDD+, the federal body responsible for receiving and processing such requests. The process must also comply with the Land Regularisation Law (Law No. 13,465/2017) to ensure that all land tenure and ownership aspects are duly verified.

Actions recommended under this scenario include:

- Defining a procedure to evaluate opt-out requests submitted through CONAREDD+, covering both environmental and legal verification requirements.
- Defining a procedure to subtract the number of credits associated with projects that opt out, and to indicate on the State's platform that these projects are not nested.

By clearly distinguishing between nested projects and projects accounted for through deductions or opt-outs, Pará can maintain transparency, prevent double counting, and ensure full alignment with national frameworks under the Brazilian Emissions Trading System (SBCE), while offering flexibility for project developers to make informed participation choices.

It is important to emphasize that there is additional clarity needed – both for the State and the private sector – on how the opt-out will evolve along with the regulatory development of the SBCE.

07 Project Conclusions and Next Steps

The ALMA Brasil project has been able to consolidate important technical and institutional knowledge required to operationalise nesting within jurisdictional REDD+ programmes in Brazil. Through a combination of technical research, stakeholder engagement, and the development of practical recommendations, the project contributed to a clearer understanding of the challenges and opportunities involved in aligning project-level and jurisdictional approaches.

Discussions throughout theproject have revealed a strong and growing interest among stakeholders — including state government, project developers, standards and investors— in building consistent frameworks that enable nesting while ensuring transparency, integrity, and efficiency. At the same time, they also highlighted critical gaps that still need to be addressed, such as legal instruments, governance routines, clarity on MRV and accounting and operational procedures for safeguards and land tenure verification.

Across the five key dimensions assessed — stakeholder engagement, capacity building, governance, technical alignment (accounting & MRV, safeguards, land tenure), and permanence — ALMA Brasil developed a proposed roadmap for nesting, outlining both immediate and long-term steps for Pará to establish an operational framework.

Building on these lessons, the project defined specific criteria for accounting & MRV, safeguards, and land tenure, which can serve as a practical starting point for implementing, testing, and refining Pará's nesting approach. While these criteria are not intended to fully address all aspects of nesting, they do offer a structured foundation for piloting and iterative learning, from which the state can gradually develop its regulatory and technical framework.

To move from design to implementation, the next steps should focus on a transition phase, centered on building technical foundations, strengthening institutional coordination, and enabling testing through a sample of projects. Strengthening coordination between subnational initiatives and national frameworks — particularly through CONAREDD+ and the SBCE Managing Body[xxiv] — will be crucial to ensure coherence and facilitate Brazil's long-term engagement in high-integrity carbon markets.

As for the next steps, specific priority actions are recommended:

1. STRENGTHENING STRUCTURED DIALOGUE AND COORDINATION

a. Advance and formalize the continuous and structured dialogue process with focal points - including project developers, crediting standards and representatives from both the state and federal levels. and state government representatives, among other key stakeholders as defined by the State.

b. Use this process to develop a coherent proposal for Pará's nesting framework, capable of resolving pending technical and policy issues and ensuring that final decisions reflect broader stakeholder consensus.

c. Engage experts to facilitate discussion on complex topics - such as accounting assessments or exploring a trust fund to ensure permanence, among other - providing technical rigour and neutrality.

2. BUILD TECHNICAL FOUNDATIONS FOR IMPLEMENTATION

a. Develop a deforestation risk map consistent with Pará's FREL, incorporating local deforestation risk factors aligned with the state's territorial realities and compatible with project-level methodologies. This should help define the limits or ranges for emission reductions that could be claimed by

projects and identify the measures applicable to projects in different stages of the nesting timeframe.

b. Conduct consultations with other jurisdictions that have advanced similar tools to integrate lessons learned and strengthen the methodological design.

c. Create a state-level tracking infrastructure system to consolidate key information on REDD+ projects in Pará. Initially, this can rely on existing market-based platforms to compile minimum data (e.g., location, standards used, issuance, land tenure type, activity category). Over time, evolve this system into a comprehensive monitoring infrastructure integrated with national platforms such as CONAREDD+ and the SBCE.

3. STRENGTHENING GOVERNANCE AND REGULATORY STRUCTURE

a. Define clear governance roles and responsibilities among competent state agencies involved in the Jurisdictional REDD+ Programme - including reviewing and restructuring existing institutional arrangements to enhance coordination, efficiency, and accountability.

b. Draft a nesting regulation following the nesting framework and organise structured consultation forums to advance the participatory consultations for review and refinement.

By advancing these actions, Pará can position itself as a pioneer in implementing an efficient, credible, and transparent nesting framework. The process will require ongoing collaboration between the state and federal governments, crediting standards, and project developers, supported by continuous learning and technical iteration.

Building on these outcomes, ALMA Brasil will continue to support the implementation and scaling of the project's findings — fostering collaboration among rainforest jurisdictions and contributing to the integrity, convergence, and long-term credibility of Brazil's carbon market.

Appendixes

This section presents supporting information to this report.

Examples of nesting approaches in the world

Table 3 - Summary of existing nesting experiences.

Country	Approach	Key Features
Cambodia	Phased nesting system ("pre-nesting," "early nesting," "full nesting")	• Early nesting started 2020. • National FREL allocated via deforestation risk map. • Drafting rules for safeguards, MRV, benefit-sharing, carbon rights.
Colombia	Integration of site-scale projects with national system through regulations and market mechanisms	• Developed National MRV System and RENARE (National Registry of GHG Emission Reductions). • Resolution 1447/2018 aligns projects with national FREL. • Carbon tax creates domestic demand for REDD+ credits.
Democratic Republic of Congo	Jurisdictional nesting under the Mai-Ndombe Emission Reductions Program (FCPF)	• Established a Program Management Unit (PMU) to support subprojects with technical assistance, baseline setting, capacity building, monitoring and safeguards. • Created a National REDD+ Fund and registry integrated with the national forest monitoring system. • Carbon rights are treated as conservation concessions, ensuring state oversight.
Guatemala	Legal and policy-based nesting linked to FCPF	• Enacted legal framework clarifying carbon rights and requiring registration of all REDD+ projects in a national registry. • Developed a nesting strategy to allocate baselines to projects, supported by the Forest Carbon Partnership Facility (FCPF) obligations. • Designing benefit-sharing mechanisms: national government allocates revenues from credit sales to projects through negotiated agreements. • Framework laws still need operationalisation through regulations and guidelines.
Peru	Centralised nesting through the Payment for Ecosystem Services Law (Law No. 30215)	• Carbon declared national patrimony; compensation allowed. • Registry for oversight and double counting control (RENAMI). • Clear process for natural projected areas (NPAs) - existing projects kept baselines until 2020. • Risk-based FREL allocation & MRV alignment rules.

Source: Pollination Group & Conservation International. (2021).[xxv]

Additional information supporting the recommendations

Accounting and MRV

Supporting information for the accounting and MRV aspects are presented as follows.

Table 4 - Main aspects for accounting differences between Verra VM0048/VDM0055 and PRODES approaches.

Aspect	PRODES	Verra/CTREES & Mapbiomas	Estimated proportion of difference due to this factor
Deforestation Eligibility	Complete removal of primary forest only	Any loss of forest under Brazil's definition (0.5ha,5m, >10%canopy cover). Includes secondary forest	80%
Method and Data	Manual interpretation of Landsat satellite data	Automated analysis of optical and radar satellite data	10%
Minimum Deforestation Area	Only patches of 6.25 ha of forest loss or more are considered	Any loss detected at 30m pixel scale (0.09 ha)	10%

Source: Space Intelligence report.

Table 5 - Assessments for avoidance potential in Pará using different approaches – macro scale.

Type of assessment	Total Area (ha)	Number of projects	Deforestation Risk Verra VM0048 (ha yr-1)	Deforestation Risk PRODES (ha yr-1)	Emissions Avoidance Potential Verra VM0048	Emissions Avoidance Potential PRODES (tCO_2e yr-1) (tCO_2e yr-1)	Difference	Higher
All REDD projects	15.185.064	33	53.493	51.483	24.675.267	25.469.908	3,22%	PRODES
Verra Projects	13.086.665	28	52.313	50.983	24.018.383	25.157.610	4,74%	PRODES
Cercarbono Projects	2.098.399	5	1.180	500	656.884	312.298	-52,46%	VM0048
Projects selected for review by IETA	13.172.440	24	43.221	41.780	18.308.636	19.050.830	4,05%	PRODES
Pará State	**122.764.914**	**n.a.**	**475.482**	**357.700**	**206.033.519**	**174.643.314**	**-15,24%**	**VM0048**

Source: analysis based on the Space Intelligence report.

Table 6 - Assessments for avoidance potential in Pará using different approaches – micro scale.

Project Assessed	Deforestation Risk Verra VM0048 (ha yr-1)	Deforestation Risk PRODES (ha yr-1)	Emissions Avoidance Potential Verra VM0048	Emissions Avoidance Potential PRODES (tCO_2e yr-1) (tCO_2e yr-1)	Difference	Higher
Project A	135	240	88.150	171.326	94,36%	PRODES
Project B	560	480	469.919	392.483	-16,48%	VM0048
Project C	417	464	223.348	276.092	23,62%	PRODES
Project D	2.481	1.250	1.237.646	696.394	-43,73%	VM0048
Project E	1.768	468	1.054.252	287.245	-72,75%	VM0048
Project F	4.074	6.217	2.695.286	4.308.655	59,86%	PRODES

Safeguards and Land Tenure

This section brings assessments of existing standards that operate in Pará, to better understand their safeguards requirements and how they compare with the Cancún Safeguards[xxvi] and the CONAREDD+ Resolution no.19 (2025)[xxvii]. Table 7 presents a comparison of the macro themes for safeguards in which of those standards and Table 8 presents which evidence is usually required to check that those requirements are being met.

Table 7 - Comparison of required safeguards in VCS, CCB, Cercabono - in relation to Cancún safeguards and CONAREDD+ Resolution 19-2025.

Macro Theme	VCS Standard v4.7[xxviii]	CCB Standards v3.1[xxix]	Cercarbono Safeguards v2.0[xxx]	Cancun Safeguards (UNFCCC, 1/CP.16)	CONAREDD+ Resolution No. 19/2025
1. General Approach to Safeguards	Applies the "No Net Harm" principle, requiring identification and mitigation of social and environmental risks during validation and verification.	Targets net positive impacts on climate, communities, and biodiversity, beyond harm prevention.	Frames safeguards as a continuous risk-management process: identification, mitigation, monitoring, and third-party validation.	Establishes seven safeguards to be promoted and supported by countries; implementation tracked through a Safeguards Information System (SIS).	Provides national procedures for jurisdictional programmes and projects, adapting safeguards to traditional and local community contexts.
2. Stakeholder Participation & Consultation	Requires stakeholder consultation and ongoing communication, without a defined methodology.	Ensures full and effective participation, documented consultations, accessible information, and grievance channels.	Requires traceable participation with mandatory responses and follow-up.	Mandates full and effective participation, particularly of Indigenous peoples and local communities.	Requires consultation plans or protocols with communities, ensuring transparency and accessible communication.

Macro Theme	VCS Standard v4.7[xxviii]	CCB Standards v3.1[xxix]	Cercarbono Safeguards v2.0[xxx]	Cancun Safeguards (UNFCCC, 1/CP.16)	CONAREDD+ Resolution No. 19/2025
3. Free, Prior and Informed Consent (FPIC)	Required when activities affect tenure or property rights; provides limited procedural guidance.	Establishes a comprehensive FPIC framework, aligned with UN and ILO standards.	Makes FPIC mandatory, documented, and culturally adapted, validated by an independent verifier.	FPIC not explicit but implied through principles of rights respect and inclusive participation.	Explicit FPIC obligation in accordance with ILO 169, conducted via formal consultation protocols with documented results.
4. Land Tenure & Property Rights	Requires evidence that project activities do not infringe land or resource rights.	Requires legal or customary documentation, agreements, and consultations with rightsholders.	Requires verified tenure assessment integrated into the project's risk analysis and validated by third parties.	Promotes transparent, effective forest governance and respect for Indigenous and local rights.	Recognises autonomy of Indigenous and traditional communities to trade carbon; ensures protection of traditional uses and culturally appropriate contracts.
5. Grievance & Conflict Resolution	Provides a basic three-step process (negotiation, mediation, arbitration).	Requires accessible and culturally appropriate grievance mechanisms with records of complaints and responses.	Establishes a traceable communication system ensuring timely response and resolution.	Does not specify a grievance process; requires SIS to be transparent, consistent, and regularly updated.	Guarantees public transparency of benefit-sharing and independent technical/legal support for community negotiations and dispute resolution.
6. Risk Management & Monitoring	Requires identification and mitigation of potential impacts, evidenced during validation and verification.	Promotes participatory risk and benefit assessment with flexible methodology.	Requires a formal risk-mitigation plan with indicators, periodic reviews, and verifier supervision.	Requires Summaries of Information demonstrating how safeguards are addressed and respected via SIS.	Establishes national monitoring procedures and public-authority oversight, including for projects on collective lands.
7. Biodiversity, Natural Forests & Sustainable Development	Requires contribution to at least three SDGs per verification period.	Requires measurable positive impacts on climate, communities, and biodiversity.	Focuses on avoiding harm and promoting co-benefits; sustainability encouraged but not mandatory.	Protects natural forests and biodiversity, discourages conversion, and promotes social and environmental co-benefits.	Requires disclosure of social, environmental, and economic results and benefit-sharing terms; includes contract safeguards for future generations.

Table 8 - Assessment of evidence types for safeguards in VCS, CCB and Cercarbono standards.

Category	VCS Standard v4.7	CCB Standards v3.1	Cercarbono Safeguards v2.0
Stakeholder Consultation	Consultation reports, meeting minutes, participant lists, communication records.	Minutes, participant lists, public disclosure materials, translated summaries, feedback integration records.	Consultation reports, audiovisual or photographic evidence, attendance lists, response tracking logs.
FPIC (Free, Prior and Informed Consent)	Consultation documentation, records showing respect for legal/customary rights; no fixed FPIC format.	Signed agreements, community protocols, records of decision-making meetings, consent statements.	Signed FPIC forms, meeting minutes, cultural protocols, audiovisual documentation, third-party validation reports.
Land Tenure and Rights	Maps, declarations, land-use references, legal compliance evidence.	Legal or customary land documents, tenure maps, agreements with rightsholders, legal opinions.	Verified land titles or tenure documents, field validation reports, inclusion in formal risk analysis.
Grievance Mechanism	Written description of process, complaint logs, public record of resolutions.	Complaint registry, records of responses, evidence of accessibility and follow-up.	Grievance register, communication tracking system, evidence of responses and resolution.
Risk Mitigation & Monitoring	Summary of mitigation measures in project design and monitoring reports.	Integrated safeguards and impact-assessment documentation.	Dedicated risk-mitigation plan, monitoring indicators, periodic review, and verifier reports.

Summary of the engagements

List of organisations engaged during Phase IV

The stakeholders consulted during the ALMA Brasil Phase IV project – in bilateral/sectoral meetings or through workshops are presented in Table 9.

Table 9 - List of stakeholders engaged in Phase IV.

Type of stakeholders	List of stakeholders engaged
Government Agencies and Representations	• Brazil Federal Government: Ministry of the Environment and Climate Change (MMA) and the National Comission on REDD+ (CONAREDD+) • State of Pará: Secretary of the State for Environment and Sustainability (SEMAS), the Company of the Environmental Assests of the State (CAAPP) and the Land Regulation Institute of Pará (ITERPA) • State of Tocantins: Secretary of Environment and Water Resources of Tocantins (SEMARH) • Consortium of the Amazon Governors • Governors' Climate & Forests Task Force (GCF)
NGOs, Research Institutions, Multilateral Initiatives	• Conservation International (CI) • Institute of Research of the Amazon (IPAM) • The Nature Conservancy (TNC) • United Nations Development Program (UNDP)

Type of stakeholders	List of stakeholders engaged
	• United Nations Environment Program (UNEP) • Winrock International
Project Developers and Project Developers Representations	• NBS Brazil Alliance • Ambipar Enviroment • BR Carbon • Carbonext • Geonoma • Systemica • Wildlife Works
Crediting programs/standards	• ART Trees • Cercarbono • Verra
Demand side and other market actors	• Amazon Investor Coalition • bp • Capital for Climate • Emergent • Equinor • Petrobrás • Shell
Consultants, technical experts, and other initiatives	• CTrees • C2050 Platform • Indufor • Ludovino Lopes Advogados • Pinheiro Neto Advogados • Space Intelligence

Summary of the workshops

The summary of the three workshops conducted during Phase IV is presented in Table 10.

Table 10 - Summary of the Phase IV workshops.

Workshop Title	Date	Location	In person participants	Virtual participants	Aspects discussed
Technical Workshop on Accounting Aspects of Project Nesting	July 31, 2025	Belém	21	20	• Benefits of nesting: state and projects developers' perspectives • Differences in accounting and MRV – presentation of Space Intelligence results • Open debate on accounting and next steps
ALMA Brasil Technical Workshop on Accounting Aspects of Project Nesting	August 26, 2025	São Paulo	37	-	• ALMA Brasil's work on safeguards • SEMAS and ITERPA presentations on safeguards and land tenure • Open discussion – role of the private sector and next steps
Safeguards Aspects and Preliminary Results of ALMA Brasil	September 30, 2025	Belém	10	28	• Project-level requirements and process for safeguards demonstration – Standards and VVBs • Presentation of the ALMA Brasil recommendations for accounting & MRV, safeguards and land tenure • Open discussion

ENDNOTES

[i] Ministério da Ciência, Tecnologia e Inovação (MCTI). 2024. Primeiro Relatório Bienal de Transparência à Convenção-Quadro Das Nações Unidas sobre Mudança do ClimA. Available here.

[ii] Brasil. 2024. Brazil's NDC National determination to contribute and transform. Available here.

[iii] Pará. 2025. Componentes do Sistema Jurisdicional de REDD+ no Pará. Available here.

[iv] Project assessment was made in August 2025.

[v] Section 13 of THE REDD+ ENVIRONMENTAL EXCELLENCE STANDARD (TREES) - v.2.0 informs that: "TREES requires the disclosure of any verified or issued emission reductions in the same accounting area, including credits from projects, which will be deducted from TREES issuance volume, checks of duplicate registration under other programs (including offset programs) and requirements for disclosure of other registrations, as well as for cancellation of the units on one registry prior to re-issuance on another."

[vi] Transition of projects to VM0048 will depend on the project status and the status of the activity of the jurisdiction. Since the final data for Pará was already release since June 2025 – there is a 6-month grace period for projects that want to verify. This means that future verification in the state will mostly come from VM0048 related projects – in Verra's case.

vii The Verra module VMD0055 establishes procedures for estimating emission reductions from avoiding unplanned deforestation. It uses jurisdictional activity data—such as deforestation risk maps and historical trends—to allocate baseline deforestation among projects, ensuring consistency and comparability within the same territory.

[viii] Space Intelligence is a science-based company that offers information to decision-making, regarding forest conservation, through their GIS expertise and platform.

[ix] Verra data is referring to the activity data published by Verra: "provisional lower-resolution (1 ha) version of the allocated deforestation risk maps (open-access data) for a given jurisdiction so project proponents can use these data to conduct due diligence and explore the feasibility of registering a project using Verified Carbon Standard (VCS) methodology *VM0048 Reducing Emissions from Deforestation and Forest Degradation, v1.0* and the associated module *VMD0055 Avoided Unplanned Deforestation, v1.1* with the VCS Program." Available here.

[x] The PRODES System (Programa de Cálculo do Desflorestamento da Amazônia) is Brazil's official monitoring system for annual deforestation in the Amazon biome. Managed by the National Institute for Space Research (INPE), it uses satellite imagery to measure clear-cut deforestation with high spatial resolution. Since 1988, PRODES has been the primary source of official deforestation data used by the Brazilian government to track forest loss, support environmental policies, and verify emission reductions from land-use change.

[xi] Cross-border deforestation risk refers to the likelihood that deforestation pressures or activities are displaced across administrative or political boundaries—such as from one jurisdiction, state, or country to another—as a result of conservation measures, market incentives, or enforcement policies implemented in a specific area.

[xii] As per Brazilian legislation (Forest Code), any landowner needs to protect 80% of its forested area in the Amazon biome – what leaves 20% for other activities, as long as authorised by the competent agency.

[xiii] More information on the safeguards' activities of Pará can be found here.

[xiv] During Phase III, ALMA Brasil launched a call for interest to select developers to collaborate, based on companies that had existing projects in Pará, willingness to contribute with a nesting framework and clearance from any ongoing legal processes. The selected companies were Ambipar Environment, Carbonext and Wildlife Works.

[xv] Collective territories, such as Indigenous Lands, quilombos, rural settlements.

[xvi] The Paraguay +verde project is an example of safeguards integration. It refers to a Green Climate Fund (GCF) REDD+ results-based payments initiative for the years 2015–2017. The country adopted an integrated safeguards framework to harmonise the multiple safeguard requirements stemming from the GCF, UNFCCC, and UNEP (as the accredited entity). An alignment exercise was conducted by the country, identifying nine environmental and social safeguards forming the basis of its integrated safeguards reporting system. More information here.

[xvii] Honduras developed the Safeguards+ Honduras Framework, a national safeguards framework for climate change, supported by UNEP and GCF Readiness funding. The initiative was created in response to the government's request to develop a coordinated and participatory system that integrates various environmental and social safeguards applied to climate change mitigation and adaptation policies — including REDD+. The framework emerged from an analysis of 12 safeguards frameworks used by climate projects in the country. From this, Honduras developed nine national safeguards tailored to its context, incorporating elements from international standards while adding country-specific safeguards. More information here.

[xviii] This initial land tenure checklist was developed/assessed by IETA, SEMAS, TNC, IPAM, ITERPA, Pinheiro Neto Advogados and Trench Rossi Watanabe.

[xix] As of this writing the new text of the standard has not been made available, but it is our understanding that while it still includes reference to projects needing to demonstrate "negligible risk of reversal", it does not set a quantified risk threshold for determining whether projects meet this requirement.

[xx] More information on the Permanence Trust proposed by the American Forest Foundation is available here.

[xxi] The ART TREES method proposes using national reference levels – what Pará has done to determine its baseline. For project allocation, there is an undergoing assessment to determine regional baselines – which will guide how to define specific deforestation rates to different regions of the state.

[xxii] Jurisdictions such as Paraguay and Honduras have proposed specific safeguards guidance.

[xxiii] Preliminary assessments indicate that the Climate, Community and Biodiversity Standards - CCB 3.1 has a comprehensive approach and clear guidance on indicator creation and reporting - also rooted in the Cancún Safeguards – it could serve as a basis for the State to establish to identify specific indicators.

[xxiv] The Extraordinary Secretary of Climate Change was created through Decree no. 12.677, from October 15th, 2025, and it will be responsible to act as interim managing body of the SBCE.

[xxv] Pollination Group & Conservation International. (2021). *Lessons learned from REDD+ nesting approaches and recommendations to Kenya: Benchmarking report* (July 2021). Ministry of Environment & Forestry, Republic of Kenya. Available here.

[xxvi] Cancún Safeguards available here.

[xxvii] CONAREDD+ Resolution no. 19/2025 available here.

[xxviii] VCS Standard v.4.7 is available here.

[xxix] CCB Standards v3.1 are available here.

[xxx] Cercarbono Safeguards Principles and Procedures, v2.0 is available here.