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EXECUTIVE SUMMARY



WHERE DOES BRAZIL STAND IN THE IMPLEMENTATION OF THE FOREST CODE?

*A Snapshot of CAR
and PRA in Brazilian
States*



**2023
EDITION**



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About Climate Policy Initiative

Climate Policy Initiative (CPI) is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. In Brazil, CPI partners with the Pontifical Catholic University of Rio de Janeiro (PUC-Rio).

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Executive Summary

The Native Vegetation Protection Law, known as the Forest Code (Law No. 12,651/2012), a law protecting native vegetation nationwide, is one of Brazil's most important environmental public policies. The implementation of the law is essential for the country to achieve its climate goals, conserve biodiversity, and develop a green economy with nature-based solutions, promoting sustainable and low-carbon agriculture, restoration of degraded areas, and sustainable forest management.

Due to its extreme relevance as a public policy, the Climate Policy Initiative/Pontifical Catholic University of Rio de Janeiro (CPI/PUC-Rio) has a research agenda entirely dedicated to this law. **This publication is part of an ongoing project monitoring the implementation of the Forest Code in Brazilian states, with contributions from state environmental and agricultural agencies. Through a detailed analysis of state regulations, data collection, and information gathering from states, as well as the exchange of experiences among analysts and state managers in virtual and in-person meetings, this report provides an overview of the forest law implementation, focusing on the Rural Environmental Registry (CAR) and the Environmental Compliance Program (PRA).** Additionally, the study utilizes specific indicators that reveal progress made in the last year and identifies strategies adopted by states that are more advanced and can be replicated, highlighting key gaps, existing challenges, and opportunities to expedite law implementation.

By disseminating this information, this report allows for continuous monitoring of the status of Forest Code regulation and implementation in each Brazilian state, serving as a guide to direct efforts and available resources. This document is the fifth edition of the report, with the first version published in 2019. Each year, the information undergoes a complete review and update, aligning with the evolving agenda.

Political Context in 2023 and Its Impacts on the Rural Environmental Registry (CAR)

In 2023, a year marked by the federal government's renewed focus on the environmental agenda and high expectations regarding the prioritization of the Forest Code, much energy was expended in discussions about who would manage the Rural Environmental Registry (Cadastro Ambiental Rural - CAR), representing the main pillar of the policy. Since 2019, the CAR had been under the management of the Ministry of Agriculture and Livestock (Ministério de Agricultura e Pecuária- MAPA) when the Brazilian Forest Service (Serviço Florestal Brasileiro- SFB) was transferred to MAPA. With the change in government in 2023 and the return of the SFB to the Ministry of the Environment and Climate Change (Ministério de Meio Ambiente e Mudanças Climáticas - MMA), the CAR became the subject of intense disputes, extending until the enactment of Law No. 14,600 on June 19, 2023, regulated only in October of the same year with the issuance of Decree No. 11,731/2023. This regulation transferred **the management of the CAR to the Ministry of Management and Innovation in Public Services (Ministério de Gestão e Inovação em Serviços Públicos - MGI).**

The changes in legislation, however, did not represent an effective migration of the registry yet. To date, this transition has not been completed, and the SFB continues to manage the CAR database. The expectation of transferring the CAR generates much apprehension among states, fearing new instabilities and issues in the National Rural Environmental Registry System (Sistema Nacional de Cadastro Ambiental Rural - SICAR), that aggregates and integrates all state bases of the CAR. In 2022, the system, previously stored in a physical infrastructure (data center) under the management of the SFB, migrated to a cloud under the management of the Department of Information Technology (DTI) of MAPA, causing a series of problems such as instability, delays in integration between state and federal bases, and in the correction of irregularities. However, some view this transfer in a positive light, as it would place the database under the management of a ministry competent in data management. Therefore, this Ministry would be capable of creating a digital infrastructure that allows for more agile customization of modules and tools and facilitates the integration of the CAR with other registries.

Simultaneously, the CAR is not solely composed of the rural property registration database; the CAR integrates the National Rural Environmental Registry (SICAR), which comprises various modules for managing registrations, analyses (by teams and dynamic processes), environmental regularization, among other modules in development. The management of all SICAR modules should be shared between MMA and MGI, but how this will be operationalized remains unclear. The year 2023 concludes without the completion of this shift in management.

Despite the changes and uncertainties regarding the CAR/SICAR, the progress observed by the states in 2023 reinforces the competence and leadership role of subnational entities in implementing the Forest Code. States did not stand still awaiting federal decisions; they made choices and implemented strategies and solutions to advance the analyses and implementation of the Environmental Compliance Program (Programa de Regularização Ambiental - PRA). Nevertheless, federal actions remain essential for advancing the agenda, including strengthening the SICAR as a priority and providing tools, inputs, and additional modules integrated into the system.

Advancements in the Implementation of the Forest Code in the States

The implementation of the Forest Code in Brazilian states has been occurring quite unevenly since its enactment. **After five years of progress in a few states, 2023 marks a significant leap in the agenda**, with states gaining momentum in the analysis of registries and others regulating and implementing the Environmental Compliance Program (PRA), thereby expanding the group of states at the forefront of the Forest Code.

The standout in 2023 is Minas Gerais: the state not only reached new stages in implementation but also experienced significant growth in the analysis of the Rural Environmental Registry (CAR), both in terms of the number of initiated analyses and those completed. The state adopted various strategies for the analysis, including hiring a specialized company, strengthening the technical team for the CAR, and initial use of the dynamic analysis tool from the Brazilian Forest Service (SFB) and, in a pilot stage, an automated analysis tool, CAR 2.0, from the Green Seal Platform (Plataforma Selo Verde). Minas Gerais also progressed in the implementation of the declaratory PRA, with an increase in the number of signed terms of commitment and proposals for joining the PRA. These advancements were achieved because the Forest Code agenda is considered a priority in the state. The Sustainable Production PRA is an umbrella program aligning the Forest Code with other policies such as restoration, Payment for Environmental Services (PES), climate, and water resources. The program aims to promote environmental adequacy through productive restoration, generating income for rural producers.

Another state that stood out in the last year was Alagoas. The small Northeastern state, one of the regions lagging in the implementation of the Forest Code, made significant progress in 2023. Alagoas advanced in the analysis of the CAR, regulated and implemented the PRA, and already has some terms of commitment for environmental regularization, covering all stages of law implementation. This progress was driven by an increased team dedicated to the agenda through the hiring of technicians for the Environmental Institute of Alagoas (Instituto de Meio Ambiente do Estado de Alagoas- IMA/AL) and a request from the Federal Prosecutor Office (Ministério Público Federal- MPF) for the agency to analyze all property registrations along the São Francisco River. The analyses gained scale and expanded to rural properties within conservation units or linked to environmental licensing processes.

Among the states leading the implementation of the Forest Code — Pará, Mato Grosso, Rondônia, and Acre — Pará is the state that innovates the most and advances in the analysis of the CAR and the regularization of rural properties, increasing areas in environmental compliance. In 2023, the state implemented a CAR 2.0 tool and maintained a large technical team dedicated to the analyses. As a result, the state achieved a significant increase in registries with completed analyses. The state also progressed in the last and most important stage of the environmental regularization process, which is the signing of terms of commitment under the PRA, covering an area of 110 thousand hectares in the recovery process. Pará has adopted diversified strategies to implement the forest law, aligning the Regularize Pará Program with other environmental policies. On one hand, the state combats deforestation by prioritizing the analysis of CARs for larger properties with a high incidence

of illegal forest suppression, as well as suspending and canceling registrations of owners who do not respond to notifications for environmental regularization. On the other hand, the state prioritized the analysis of registrations of family farmers who maintain the forest preserved, allowing them to receive over 433 thousand reais under the Payment for Environmental Services (PES) scheme, within the Forest+ Amazon Project of the federal government.

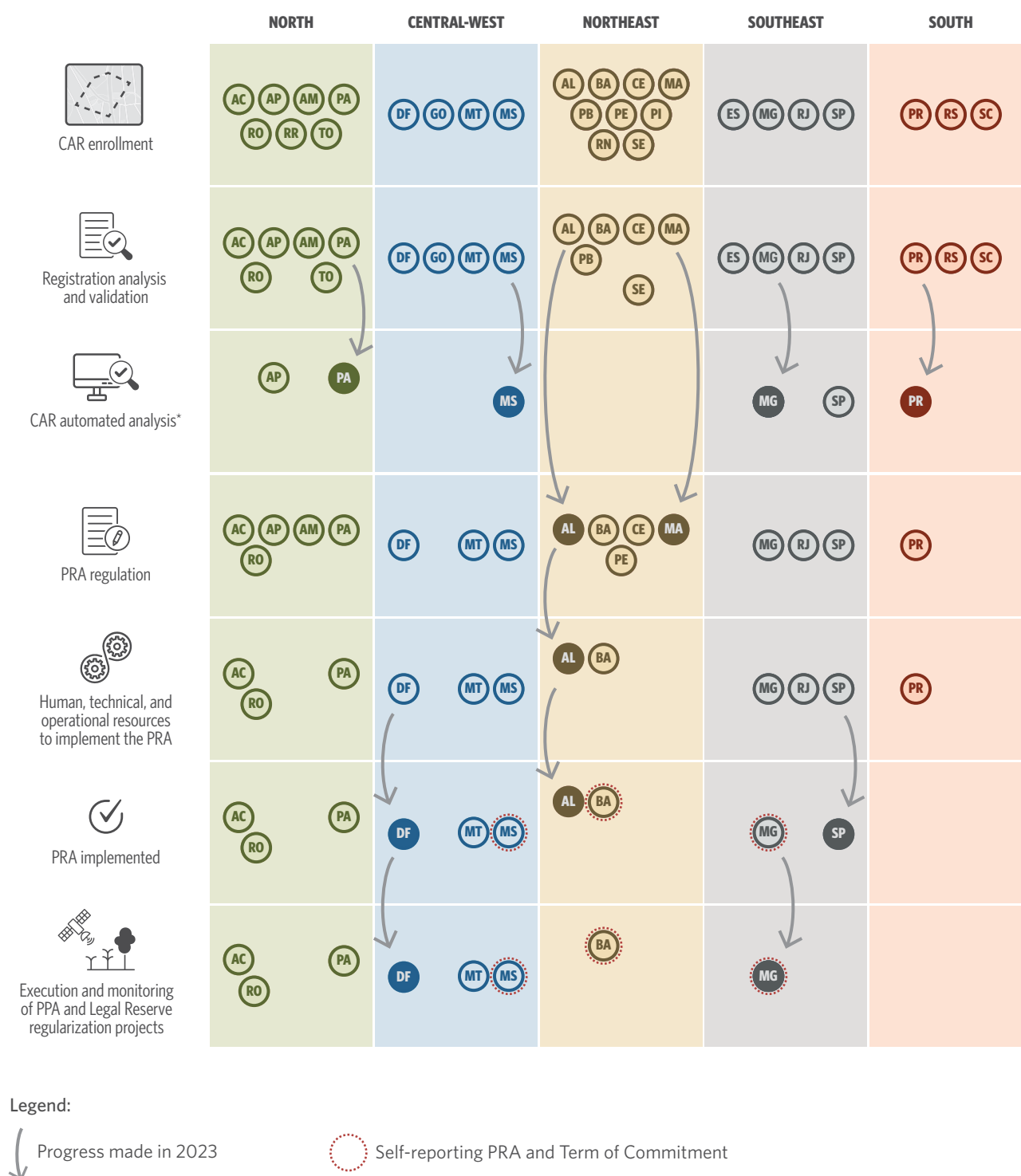
It's worth mentioning the advancements in São Paulo, a state that had already made significant progress in 2022 with dynamic analysis but managed to make even further progress in 2023, tripling the number of registrations with completed analysis. To address the major obstacle in the CAR analysis stage, which is communication with property owners for the rectification of registrations, São Paulo adopted different strategies: a robust and trained technical team, in-person service centers, the implementation of a call center for inquiries about the Code (FaleCAR), and partnerships with technical agencies to train consultants working on the agenda. Additionally, after years of legal disputes over the regulation of the Environmental Compliance Program (PRA), the state managed to implement the program following a resolution of the legal situation and the adoption of the Environmental Regularization Module (Módulo de Regularização Ambiental - MRA), developed by the Brazilian Forest Service (SFB) but customized to meet the state's peculiarities.

Finally, Mato Grosso do Sul and Paraná also made significant progress in the CAR analysis stage with the implementation of the dynamic analysis tool for registrations, while the Federal District reached new stages with the implementation of the PRA.

There is a group of states that did not achieve significant progress in 2023 and remained practically at the same level of implementation as the previous year. In this group are: Piauí, Pernambuco, Rio de Janeiro, Rio Grande do Sul, Rio Grande do Norte, Roraima, Santa Catarina, and Sergipe.

The status of the states at all stages of Forest Code implementation can be seen in Figure 1 below.

Figure 1. Status of the Implementation of the Rural Environmental Registry (CAR) and the Environmental Compliance Program (PRA) by States, 2023



Source: CPI/PUC-Rio, 2023

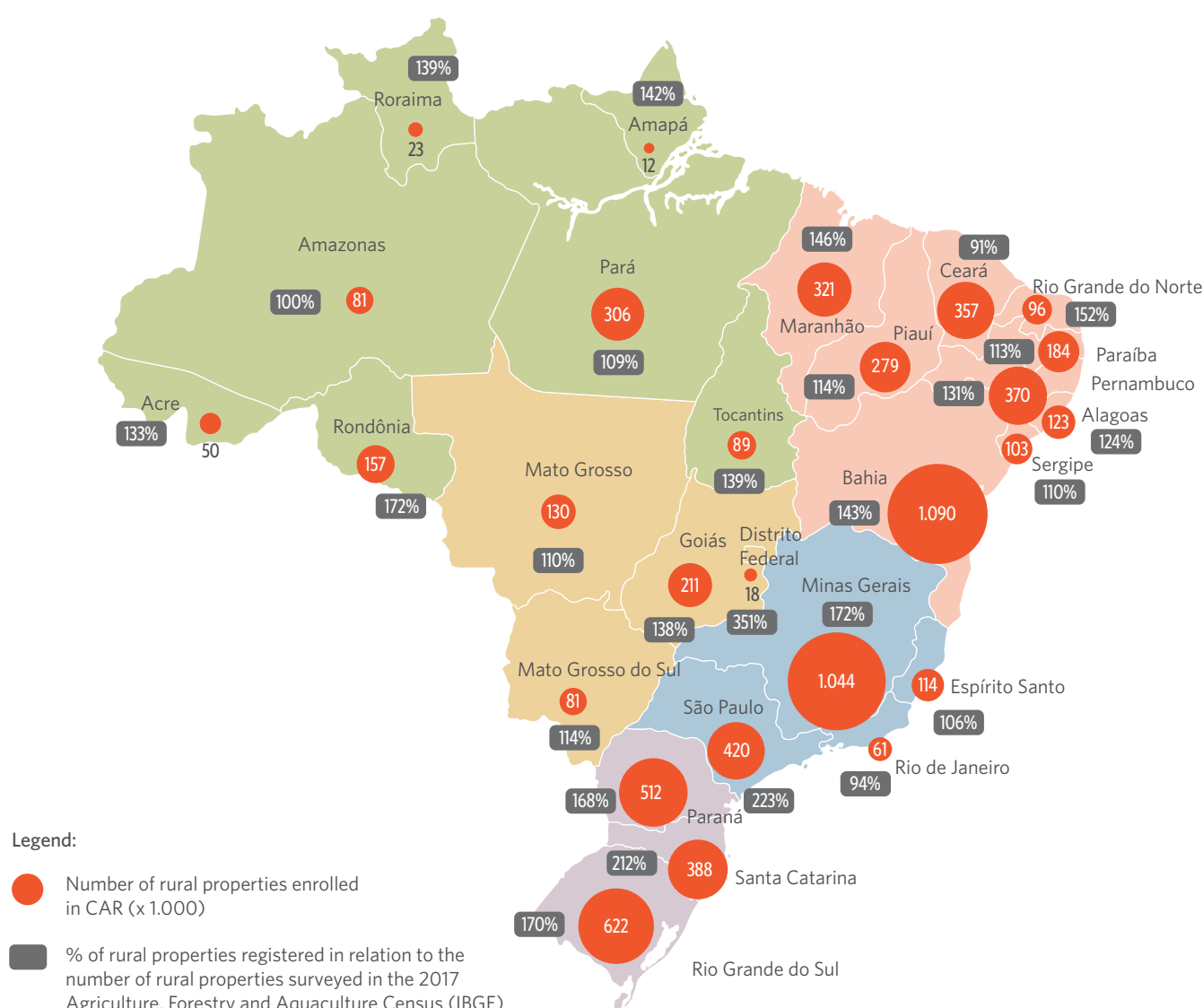
Rural Environmental Registry (CAR) Enrollment Stages

Enrollment of Rural Properties in CAR

The stage of rural property enrollment in CAR is already consolidated in all states.¹

Nevertheless, there is a constant increase in the cadastral database nationwide due to the enrollment of small farmers and traditional peoples and communities (PCT), as well as the dynamics of property subdivision, consolidation, and cadastral updates. In the last year, the number of registrations in CAR increased by 8.6%, reaching a total of 7.24 million registrations in November 2023. Bahia and Minas Gerais are the states with the highest number of registrations in the country, with both currently having over one million registrations in their databases (Figure 2).

Figure 2. Rural Properties Enrolled in CAR, 2023



Source: CPI/PUC-Rio based on updated data provided by state agencies responsible for the Rural Environmental Registry (CAR) (November 2023) and data from the CAR Public Consultation (updated in November 2023), 2023

¹ CAR is a permanent registry, with no deadline for the enrollment of rural properties. However, to ensure the right to join the PRA, the suspension of fines, and the benefit of more flexible rules for environmental regularization of consolidated rural areas, the enrollment of the rural property in the CAR for owners and possessors of properties with an area above four fiscal modules must be done by December 31, 2023. For those with rural properties with an area of up to four fiscal modules or that meet the provisions of article 3 of Law No. 11,326/2006, enrollment in the CAR must be done by December 31, 2025, to secure this right.

Registration of PCT Territories in CAR

The registration of traditional peoples and communities' (*Povos e Comunidades Tradicionais* - PCT)² territories in the specific a specific CAR module for these communities (CAR/PCT) has been progressing in recent years in various states. Only Espírito Santo, Mato Grosso, and the Federal District do not have any traditional territory registered in the CAR/PCT. Some states stand out with a high number of registrations, such as Maranhão with 680 CAR/PCT, Bahia with 345, and São Paulo with 310. Paraná, Piauí, Minas Gerais, and Pernambuco have between 100 and 180 CAR/PCT, and in Alagoas, Amazonas, Goiás, Pará, and Rio Grande do Norte, registrations range from 10 to 100. The remaining states — Acre, Amapá, Ceará, Mato Grosso do Sul, Paraíba, Rio de Janeiro, Rio Grande do Sul, Rondônia, Santa Catarina, Sergipe, and Tocantins — have fewer than 10 CAR/PCT. Some states have their own strategies to promote these registrations, as is the case with Pará. The state organizes meetings and training for the communities themselves, actively involving them in the entire process of CAR/PCT registration. The state has developed a methodology in collaboration with the communities, involving several phases until the registration is completed (Semas/PA 2023). These actions have allowed the registration of 37 quilombola territories and 13 extractive territories, covering an area of over one million hectares and benefiting more than 12 thousand people. In some states, the responsibility for CAR/PCT registration lies with the environmental agency, such as Amazonas, Pará, and São Paulo, while in other states, it falls under agencies related to agriculture and rural development, such as in Ceará and Rio Grande do Sul. Most registrations are for quilombola communities, but there are also registrations for cipozeiros, extractivists, faxinais, fundo and fecho de pasto, geraizeiros, islanders, indigenous people, coconut breakers, fishermen, and riverside communities.³

Individual Registration of Settlement Project Plots in CAR

In 2023, there was a significant advance with the establishment and operationalization of the Plot CAR Module (*Módulo Lote CAR* - MLC) for the individual registration of plots in agrarian reform settlements in CAR. Normative Instruction No. 131/2023, from the National Institute of Colonization and Agrarian Reform (*Instituto Nacional de Colonização e Reforma Agrária* - INCRA), formally institutes the MLC and establishes rules and administrative procedures for the automated individualization of plots of beneficiaries of the National Agrarian Reform Program (*Programa Nacional de Reforma Agrária* - PNRA) in CAR. Previously, only the perimeters of settlement projects had been registered in CAR, making it difficult for settlers to access public policies and rural credit, which use CAR as a condition for benefits. Now, interested settlers can request the registration of their plots from INCRA units or partner institutions. The individualization of registration for settlement plots is also essential for promoting the environmental regularization of areas since a significant portion of deforestation in the Amazon occurs in rural settlements (Mourão, Sessim, and Souza 2023). The successful implementation of this tool is already underway in INCRA regional offices in nine states: Goiás, Maranhão, Paraíba, Paraná, Pernambuco, Piauí, Rio Grande do Norte, Roraima, and Sergipe, with a total of 2,273 registrations completed so far.

² In this document, we are using the Portuguese acronym as it is well known and used to refer to a specific CAR module.

³ Decree No. 8,750/2016, which establishes the National Council for Traditional Peoples and Communities, lists the communities that are already formally recognized.

Step of CAR Analysis

Analysis of CAR Data

In 2023, several states made significant progress in analyzing the data declared in the CAR, such as Alagoas, Goiás, Mato Grosso do Sul, Minas Gerais, Pará, Paraná, and the Federal District. This advance in the most challenging step of the implementation of the Forest Code occurred both through the expansion of technical analysis teams and the adoption of automated CAR analysis tools. **However, four states — Piauí, Pernambuco, Rio Grande do Norte, and Roraima — lag behind and were unable to initiate this step.**

In 2023, there was a significant progress in the adoption of tools for the automated analysis of CAR, implemented in six states, four more than the previous year, covering Amapá, Mato Grosso do Sul, Minas Gerais, Pará, Paraná, and São Paulo. Some states use the dynamic analysis module developed by SFB, as is the case with Amapá, Mato Grosso do Sul, Minas Gerais, and Paraná; São Paulo customized this system to meet the state's peculiarities. Pará and Minas Gerais adopted CAR 2.0, another tool for automated analysis developed by a consulting firm for the Green Seal Platform. The automated CAR analysis ensured scalability in initiated and completed analyses in all these states, with Mato Grosso do Sul and Paraná standing out. Mato Grosso do Sul managed to analyze 70% of its cadastral base, a significant leap from 2022. Paraná is running dynamic analysis by region and achieving very positive results, having tripled the number of analyzed CARs.

Automated CAR analysis tools are particularly useful for registrations that do not require data rectification and have no environmental liabilities, meaning they are particularly effective for rural properties smaller than four fiscal modules. In this context, it is interesting to note the relationship between the number of registrations with completed analysis and the corresponding occupied area. In Pará, about 11 thousand CARs were fully analyzed by the technical team and 23 thousand by CAR 2.0. However, in terms of area, team analyses covered more than six million hectares, while automated analysis covered only 776 thousand hectares.

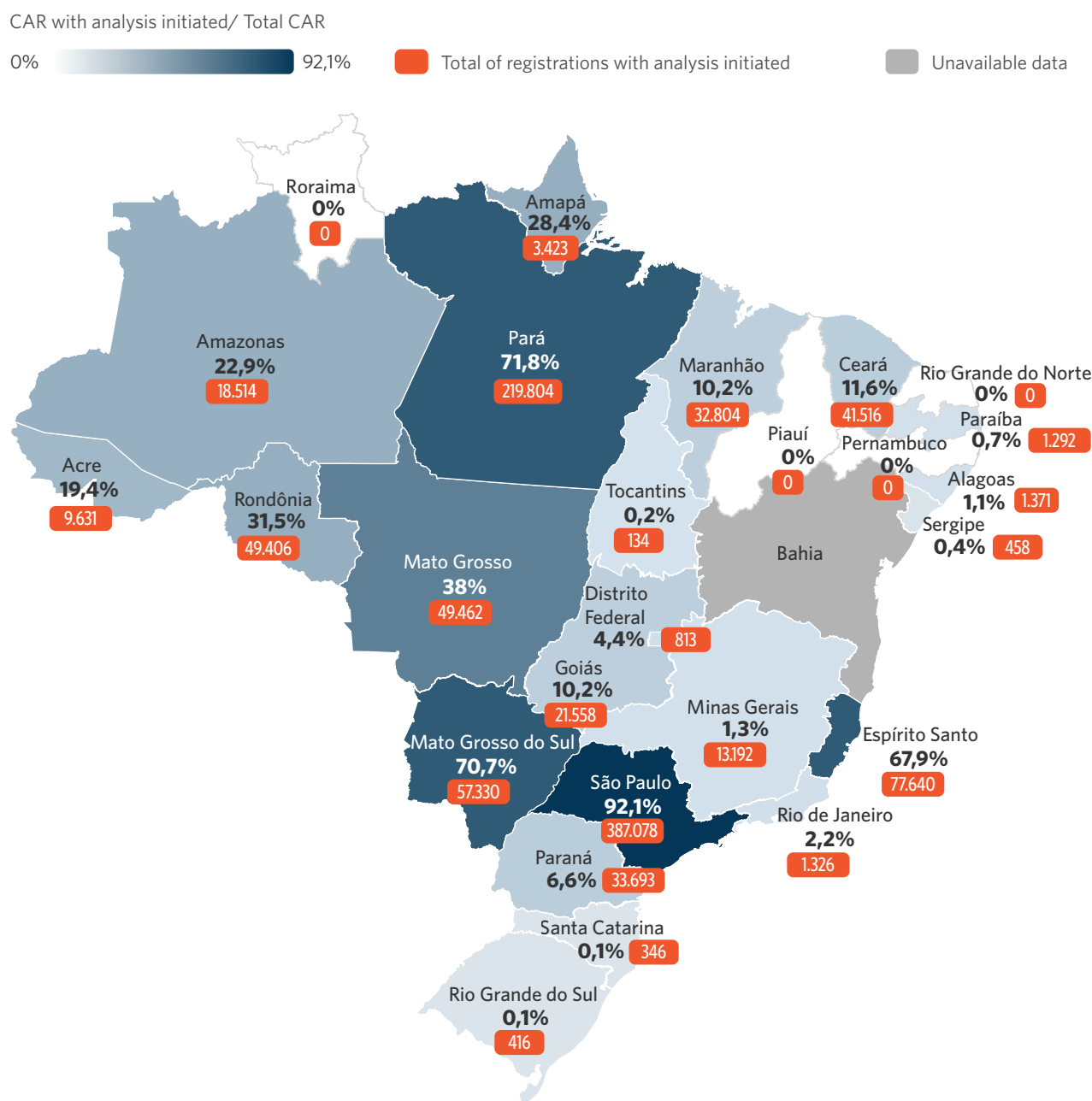
Minas Gerais was the state that made the most progress in the number of analyses, increasing from 16 registrations with initiated analysis in 2022 to more than 13 thousand registrations in 2023, of which almost 12 thousand analyses were conducted by the technical team. However, the state's challenge is colossal. Minas Gerais has over one million registrations in its database, and all this progress achieved represents a tiny fraction of the properties.

Alagoas also stood out this year, increasing the number of analyzed registrations in the state by 12 times. The Federal District and Goiás tripled the number of analyzed registrations, and Sergipe doubled its analyses in 2023. In absolute terms, the states with the most registrations with initiated analysis are São Paulo with 387 thousand CARs and Pará with 219 thousand CARs. Ceará, Espírito Santo, Mato Grosso, Mato Grosso do Sul, and Rondônia have between 40 thousand and 80 thousand CARs with initiated analysis. Acre, Amazonas, Goiás, Maranhão, and Minas Gerais have between 10 thousand and just over 30 thousand analyzed CARs. In other states, fewer than 1,500 registrations have undergone analysis.

Regarding the proportion of CARs with initiated analysis to the total registrations in the state, only four states stand out: São Paulo, Pará, Mato Grosso do Sul, and Espírito Santo, with over 70% of the cadastral base with initiated analysis. In Acre, Amapá, Amazonas, Ceará, Goiás, Mato Grosso, and Rondônia, this proportion drops to 10% to 40%. Even with progress in analyses, Minas Gerais and Paraná have many registrations, and the proportion of initiated analysis to the total registrations in the base is very low, indicating the size of the challenge that the states still face.

Figure 3 shows the total number of initiated analyses and the proportion of initiated analyses to the total state registrations. **Considering the country as a whole, more than one million CARs have already undergone analysis by teams or automated means, representing about 14.1% of all registrations in Brazil.**

Figure 3. Proportion of Initiated CAR Analysis and Total Number of CARs with Initiated Analysis, 2023



Source: CPI/PUC-Rio based on updated data provided by state agencies responsible for CAR (November 2023), 2023

Conclusion of the Analysis

In 2023, significant progress is observed in some states in completing CAR analyses, particularly in Mato Grosso do Sul, Pará, Paraná, and São Paulo. These four states utilize automated CAR analysis tools, which undoubtedly contributed to expediting the completion of analyses for registrations without issues. In terms of percentage, Mato Grosso do Sul made the most significant strides, with a more than 600% increase in the number of registrations finalized by the competent authority, jumping from 1,800 CARs in 2022 to over 14,000 CARs in 2023. In absolute terms, Pará and São Paulo achieved the milestone of over 34,000 CARs with completed analysis.

Despite the progress in these states, Espírito Santo remains the most advanced in this step, with approximately 77,000 registrations fully analyzed. The state achieved this success because registrations for rural properties smaller than four fiscal modules were developed with technical support from the Institute of Agricultural and Forestry Defense of Espírito Santo (*Instituto de Defesa Agropecuária e Florestal do Espírito Santo* - IDAF/ES). These registrations were entered with correct information, facilitating analyses by the competent authority. However, Espírito Santo has not been advancing in the analysis of other registrations in the state.

Some states that had zero registrations with completed analysis in 2022 managed to fully complete the analysis of certain registrations, as seen in Amapá, Minas Gerais, Paraíba, and Tocantins. Although, in absolute terms, the number of registrations with completed analysis is low in these states, progress in the most challenging step of the Forest Code implementation is already significant.

Despite the advances, concluding the CAR analysis, with the validation of data declared in CAR and the analysis of the property's environmental regularity, remains the major bottleneck in the implementation of the Forest Code. As shown in Figure 4, the proportion of CARs with completed analysis to the total registrations in the state continues to be critical, with the exception of Espírito Santo, which has about 68% of the entire registration base fully analyzed, and Mato Grosso do Sul and Pará, which already have over 10% of the state's registrations with completed analysis. **Considering all states, about 2.7% of the country's registrations have undergone analysis completion by a team or the dynamic analysis system. In percentage terms, progress in the last year was modest, but in absolute terms, over 70,000 registrations had analysis finalized.**

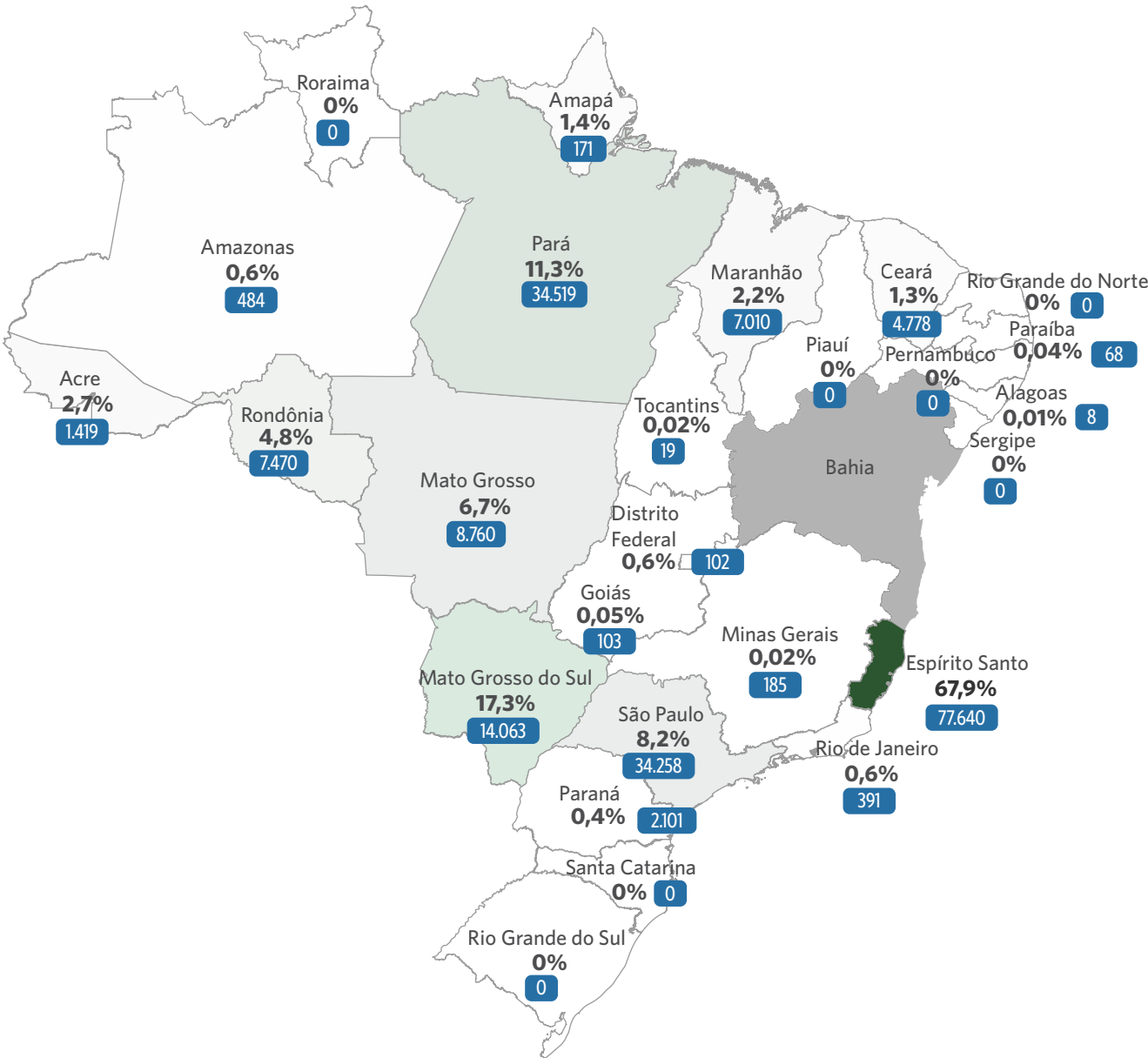
The main reason for the dynamic analysis not meeting the expected efficacy is the enormous number of registrations requiring rectification; in São Paulo alone, nearly 90% of registrations processed by the system need some form of rectification. This issue is not specific to São Paulo or dynamic analysis but is a challenge faced by all states, whether in team or automated analysis. In Pará, out of the 219,000 registrations that have undergone analysis, 123,000 are awaiting the producer's response to notifications for rectifying or supplementing CAR data. In Rondônia, of the over 49,000 CARs with initiated analysis, the competent authority awaits the response to notifications for nearly 42,000 registrations. Several other states confront this same challenge. There is a realization that the registrations are "outdated" as properties have changed over these 10 years of CAR implementation. Today's analyses rely on new and more accurate reference databases, revealing inconsistencies that were not identified when the registrations were initially made. Many technicians note that **there is essentially a recall of registrations.**

Difficulties in communicating with owners and occupants are the primary reason notifications go unanswered. Some states, like Acre and São Paulo, have made progress in this regard. Acre established the Notification Department within the Technical Office for CAR and PRA Management over the last year. This new department has a dedicated team to contact property owners, discuss notifications, and schedule the signing of commitment terms. Consequently, the state managed to increase the number of completed analyses by over 60% and guide producers with liabilities toward the regularization of rural properties. São Paulo conducted on-site service desks in municipalities and implemented a call center (FaleCAR) to address queries about the Code. From April to November 2023, FaleCAR received over eight thousand calls to resolve issues ranging from difficulties with Sicar to questions about Legal Reserve compensation. These strategies appear to have been effective: 87% of FaleCAR's demands were resolved, numerous notifications were addressed, and the state advanced by over 200% in completing analyses.

Figure 4. Proportion of Completed CAR Analysis and Total Number of CARs with Completed Analysis, 2023

CAR with analysis completed / Total CAR

0%  66,5%  Total of registrations with analysis Completed  Unavailable data



Source: CPI/PUC-Rio with updated data provided by the state agencies responsible for CAR (November 2023), 2023

Cancellation of CAR Overlapping Non-Registrable Areas

The cancellation of CARs overlapping Indigenous Lands (*Terras Indígenas* - TIs), public protected areas (*Unidades de Conservação* - UCs), and other non-registrable public areas is a crucial indicator of the Forest Code's implementation, but it was not possible to quantify progress or setbacks in the past year. The state of Pará consistently undertakes actions to cancel and suspend irregular registrations, making georeferenced data publicly available.⁴

⁴ For CAR data on Indigenous Lands in Pará, visit: bit.ly/3Ri9dTV. For CAR data on Conservation Units in Pará, visit: bit.ly/3RDgclq.

The state has been suspending and canceling hundreds of registrations in TIs and UCs, but new CARs are registered in these areas every year. Acre, Amazonas, Mato Grosso, and Rondônia are states that have already promoted the cancellation of irregular CARs. This issue remains a challenging problem since there is no permanent block in the system for new registrations in these areas. Finding a quick and efficient solution to cancel irregular registrations and prevent new registrations is a matter of land, social, and environmental priority that must be addressed urgently.

Regulation Stage of the Forest Code by the States

Regulation of the PRA and Liabilities in Permanent Preservation Areas (APP) and Legal Reserve

Alagoas and Maranhão regulated the PRA in the second half of 2023, reaching this new and important stage. In total, 16 states and the Federal District have effectively regulated the PRA and adopted rules for recovering liabilities in APP and Legal Reserve. However, 10 states—Alagoas, Espírito Santo, Paraíba, Piauí, Rio Grande do Norte, Rio Grande do Sul, Roraima, Santa Catarina, Sergipe, and Tocantins—are still significantly delayed in developing a minimal normative framework for the environmental regularization of rural properties. In these states, the PRA is either not regulated or the adopted regulation is insufficient, with no established procedures and criteria for vegetation liabilities recovery.

In the past year, some states updated their legislation by adopting new legislation, sometimes complementing previous ones, sometimes entirely replacing PRA regulation, as was the case in Rondônia. Over 30 laws or regulations related to the Forest Code's implementation were issued this year by the states, and at least eight relevant federal norms were issued in the past year.

Rondônia enacted Complementary State Law No. 1,193 on June 22, 2023, implementing the Permanent Environmental Regularization Program (PPRA) and reducing the Legal Reserve percentage from 80% to 50%, exclusively for the regularization of liabilities prior to July 22, 2008. Mato Grosso, another state in the Legal Amazon, also regulated, in 2023, the reduction of the Legal Reserve percentage from 80% to 50% for the purpose of recovering liabilities, but it establishes the Forest Code's issuance date, May 25, 2012, as the reference point. In Mato Grosso, the reduction of the Legal Reserve is only applicable in case of reforestation or regeneration in the property itself; for compensation purposes, the Legal Reserve percentage remains at a minimum of 80%. In addition to Mato Grosso and Rondônia, Roraima had already regulated, in 2022, the reduction of the Legal Reserve percentage. **However, in Roraima, the reduction of the Legal Reserve is not only for regularization purposes but applies to all rural properties** since the state has over 65% of its territory occupied by duly regulated public domain Conservation Units (UCs) and homologated Indigenous Lands (TIs), a condition required by the Forest Code for applying this reduction (Lopes and Minsky 2023).

In 2022, Goiás had already enacted an alternative procedure—which is even more flexible than that provided by the Forest Code—for the environmental regularization of forest liabilities before and after July 22, 2008. State Law No. 21,231/2022 extends until 2019 the possibility of compensating Legal Reserve liabilities. However, compensation must follow a 2:1 metric, meaning that for every hectare that is deforested, the owner must compensate double of the area. In 2023, the state implemented the Environmental Declaration of the Property (DAI) for the regularization of liabilities in Permanent Preservation Areas (APP) and Legal Reserve. According to Semad/GO, approximately 4,500 hectares were donated to UCs, 80 hectares of environmental servitude were annotated, and about 300 hectares of servitude are awaiting annotation, in addition to 100 hectares under recovery. Before the enactment of this law, out of 150 presented projects for the recovery of degraded areas (*Projetos de Recuperação de Áreas Degradadas* - PRADs) by rural producers between 2011 and 2023, only five effectively addressed the damages. According to the Goiás environmental agency, the new law may generate more environmental gains; however, it is important to note that the Goiás law sets a precedent that could trigger a review of legislation in other states, potentially leading to even greater setbacks. This regulation was amended by a new law in 2023, and its provisions have already been subject to litigation before the Supreme Federal Court (STF) through Direct Action of Unconstitutionality - ADI No. 7438/DF. The Federal Public Prosecution (*Ministério Público Federal* - MPF) has already opposed the legislation (MPF 2023), and there is a possibility that other provisions of State Law No. 21,231/2022 may also be challenged by a new direct action of unconstitutionality.

Finally, the year 2023 ends with the remaining expectation of the Supreme Federal Court's (*Supremo Tribunal Federal* - STF) judgment of the clarification appeals regarding the decisions on direct actions of unconstitutionality (*Ações Diretas de Inconstitucionalidade* - ADIs) related to the Forest Code (ADIs No. 4901/DF; 4902/DF; 4903/DF; and 4937/DF). **This judgment could extend the criterion of ecological identity to all forms of Legal Reserve compensation, with significant impacts on the implementation of the Forest Code, especially in state regulations, land regularization of federal and state Conservation Units (UCs), and for producers who have already carried out Legal Reserve regularization through compensation** (Lopes, Segovia, and Chiavari 2023). The judgment was suspended due to the request for a review by Minister Luís Roberto Barroso and will resume in the first week of February 2024. Six out of the 11 STF ministers have already published their votes, of which five are in favor of adopting the criterion of ecological identity, and one is against.

Implementation Stage of the PRA

Adherence to the PRA

In 2023, progress is observed in the implementation of the PRA, with three new states reaching this stage — Alagoas, the Federal District, and São Paulo — and three states gaining momentum with an increase in signed commitment agreements for environmental compliance — Mato Grosso, Minas Gerais, and Pará.

Nevertheless, the final stage of regularization of liabilities in Permanent Preservation Areas (APP) and Legal Reserve, through PRA adherence, the presentation of Projects for the Regularization of Degraded and Altered Areas (Projetos de Regularização de Áreas Degradadas e Alteradas - PRADAs), and the signing of commitment agreements (termos de compromisso), remains a goal that is distant from being achieved in the short or medium term in the country.

Signing of Commitment Agreements

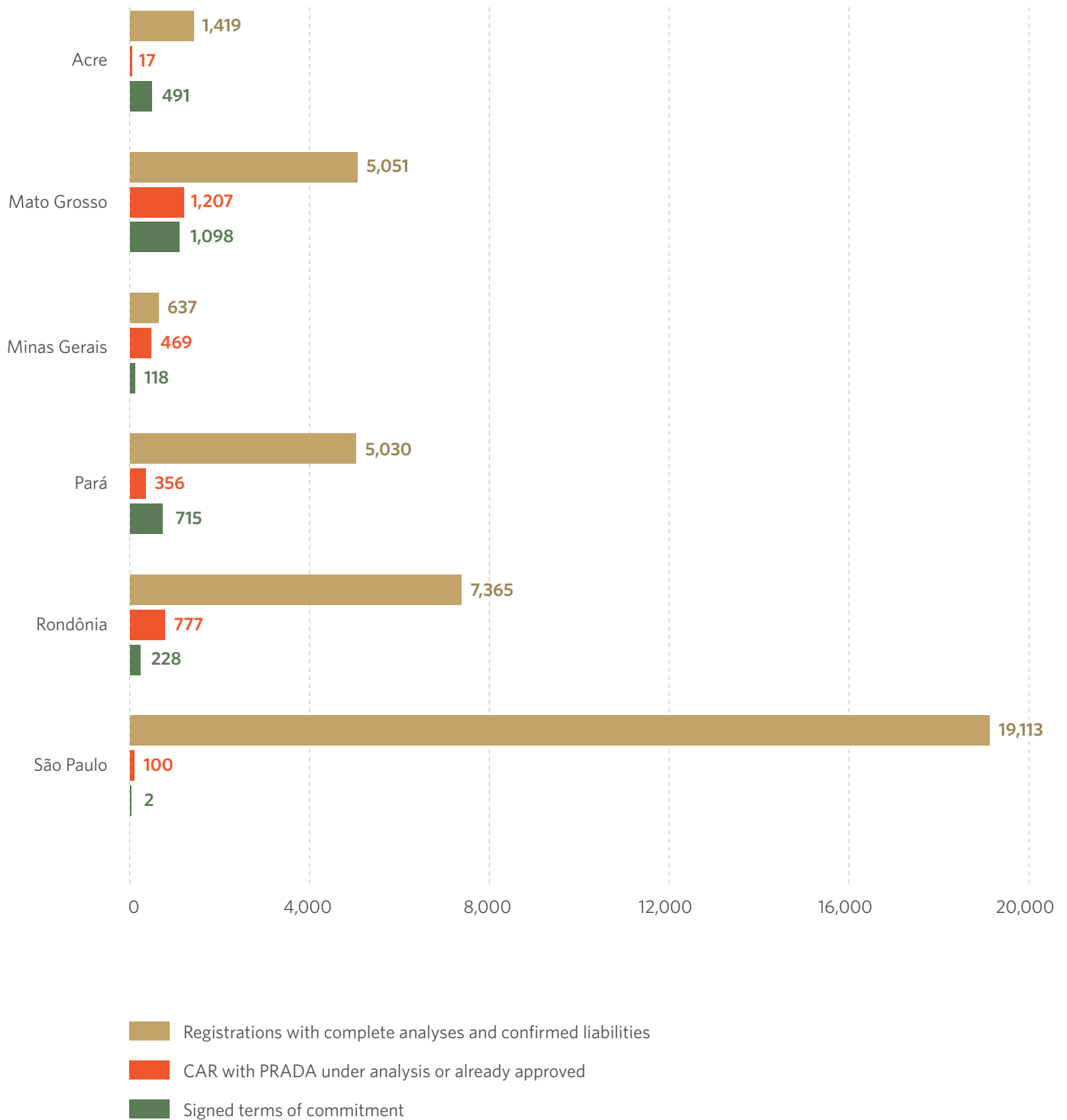
In states where the PRA is in operation, only a portion of registrations with completed environmental regularity analysis — confirming the existence of pending legal obligations — proceed to the stage of PRA adherence, Prada presentation, and commitment agreement signing for the regularization of APP and Legal Reserve. Difficulties range from producer resistance to committing to environmental regularization to a lack of awareness of productive and/or multifunctional forest restoration solutions.

Some states have sought strategies to overcome this obstacle. For example, since 2022, the steps of CAR analysis and PRA adherence have been part of a single procedural flow in Mato Grosso. This unification boosted the PRA adherence and the signing of commitment agreements for the regularization of rural properties. In 2023, the number of commitment agreements signed in the state increased by 50% compared to the previous year. Pará also concentrated efforts on implementing the final stage of the Forest Code and saw the number of commitment agreements signed in the state increase sevenfold. In Minas Gerais, producers are allowed to submit a voluntary PRA, committing to complying with legal obligations before the CAR analysis by the competent authority. Interested parties present a Prada, and the commitment agreement is signed by the producer and the competent authority. From 2022 to 2023, the number of commitment agreements in Minas increased from 10 to 118, not counting the 470 PRA adherence proposals that have already been submitted and are under review.

Figure 5 presents data related to states that have already implemented the PRA and provides information on the number of CARs with completed analysis and confirmed liabilities, the number of presented PRADAs that have been approved or are under review by the competent authority, and the number of signed commitment agreements. The commitment agreement is the document that formalizes the producer's adherence to the PRA and establishes the schedule for regularization, making it the best indicator of rural property regularization. This year, the report includes data on PRADAs from owners who have not yet signed commitment agreements as an indicator that they are expected to formalize regularization in the short term. Despite recent advances in some states, there is a significant difference observed between properties whose CAR status is "awaiting environmental

regularization” and properties actually undergoing environmental regularization. Rondônia is the state that stands out the most for the difference between properties with pending legal compliance and properties in the process of regularization.

Figure 5. Number of CARs with pending legal compliance in APP and/or Legal Reserve, Number of Pradas, and Number of Signed Commitment Agreements



Source: CPI/PUC-Rio, 2023

Stage of Environmental Regularization Monitoring

Monitoring of Pending Legal Compliance in APP and Legal Reserve

Several states have established rules for monitoring the regularization of liabilities in Permanent Preservation Areas (APP) and Legal Reserve. However, in practice, only a few states have adopted systems and tools for monitoring restoration. Most states envision self-monitoring by the owner or possessor, with the submission of periodic reports, and also monitoring by the environmental agency through remote sensing and field inspections when deemed necessary. The use of technologies, such as monitoring systems and platforms with geospatial data, and the use of applications, like AgroTagVEG developed by the Brazilian Agricultural Research Corporation (*Empresa Brasileira de Pesquisa Agropecuária* - EMBRAPA), are essential tools in forest restoration management.

Alignment of the Forest Code with Other Public Policies

Strengthening the alignment of the Forest Code with other environmental public policies, through integrating CAR data with databases containing information on licensing, authorizations, embargoes, and deforestation on rural properties, is crucial for the country to advance its environmental agenda. **Some states are already moving in this direction. The Amazonas state, for instance, has established a routine to prevent illegal deforestation and enforce the regularization of these areas.** The state cross-references deforestation alerts from the National Institute for Space Research (*Instituto de Pesquisas Espaciais* - INPE) with CARs. When it identifies unauthorized forest clearance, the competent authority immediately suspends the CAR for the property, imposes an embargo on the area, and fines the owner. More than three thousand registrations have been suspended, preventing producers from obtaining credit, issuing animal transportation guides (*Guia de Transporte Animal* - GTA), and receiving other administrative authorizations. To reactivate the CAR, producers must submit an environmental regularization project for the property and sign a commitment agreement, which can be done within the administrative environmental enforcement process.

Similarly, Pará has adopted diverse strategies to implement forest legislation, aligning the Forest Code with other environmental policies. In April 2023, the state government and the Ministry of the Environment (MMA) established a working group to propose measures ensuring the effectiveness of CAR as a tool for rural environmental management and monitoring, control of illegal deforestation and degradation, and economic incentives. Pará has identified priority municipalities with properties above four fiscal modules with illegal deforestation exceeding 50 hectares between 2018 and 2022. The state organized outreach efforts in these municipalities to assist producers in environmental regularization, analyzed CARs for priority properties, and suspended those who did not comply with notifications. The Pará Secretary of Environment and Sustainability (SEMAS) will publish a notice notifying producers again, with the risk of CAR cancellation if they do not respond within 30 days. Besides command and control actions, the state is also partnering with the federal government for Payment for Environmental Services (PES) for conservation through the Forest+ Amazon Program.

In addition to conservation policies, landscape and forest restoration policies associated with market mechanisms such as PSA, REDD+,⁵ and carbon credits can also be used to incentivize restoration and compliance with the Forest Code, especially on small family farms, promoting the recovery of degraded areas and income generation.

Finally, aligning the Forest Code with rural credit policy is essential for promoting sustainable agriculture compatible with environmental preservation. Initiatives from the financial system, such as resolutions from the National Monetary Council (*Conselho Monetário Nacional* - CMN) and the Central Bank of Brazil (*Banco Central do Brasil* - BCB), act both to prevent access to credit for producers not in compliance with environmental legislation and to provide facilitated access conditions for producers in accordance with active CAR status and the status of the registration analysis (analyzed in accordance with the law or undergoing environmental regularization).

⁵ 'REDD' is a mechanism adopted by the United Nations Framework Convention on Climate Change (UNFCCC) for 'Reducing emissions from deforestation and forest degradation in developing countries. The '+' stands for additional forest-related activities that protect the climate, namely sustainable management of forests and the conservation and enhancement of forest carbon stocks.

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