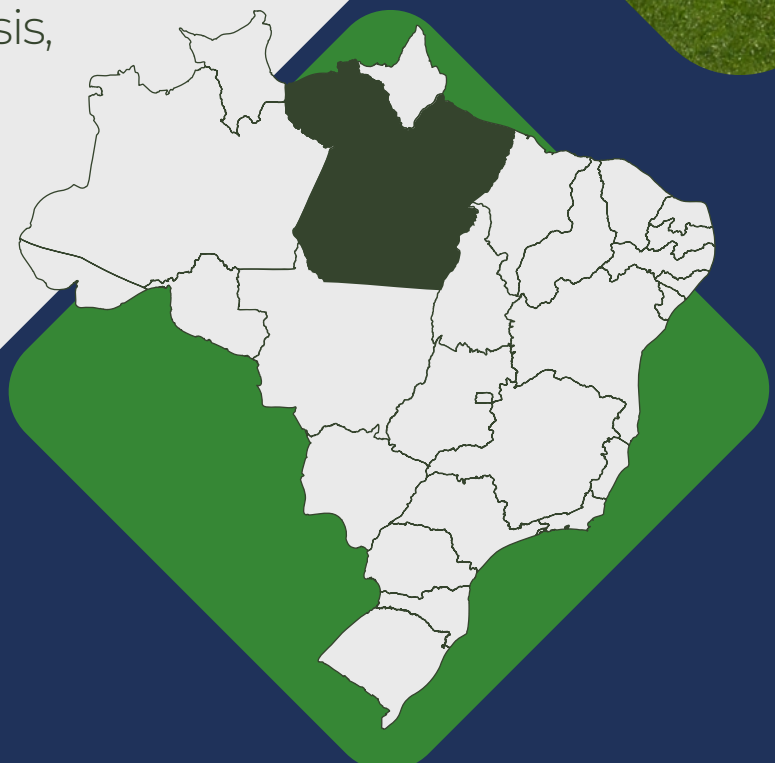
EXECUTIVE SUMMARY

Degraded pastures on small rural properties in the state of Pará: Diagnosis, challenges and pathways to a sustainable transition



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AGROICONE
conhecimento para uma nova economia

Dados Internacionais de Catalogação na Publicação (CIP)
(Câmara Brasileira do Livro, SP, Brasil)

Vicari, Lauro Marques
Executive summary [livro eletrônico] : degraded pastures on small rural properties in the state of Pará : dagnosis, challenges and pathways to a sustainable transition / Lauro Marques Vicari, Gustavo Dantas Lobo, Leila Harfuch. -- São Paulo : Agroicone, 2026.
PDF

ISBN 978-85-5655-045-3

1. Agricultura familiar 2. Agropecuária 3. Áreas rurais 4. Crédito rural - Brasil 5. Gado - Alimentação e alimentos 6. Meio ambiente (Educação infantil) 7. Pastagens 8. Pastagens - Recuperação 9. Pará (Estado) 10. Sustentabilidade I. Lobo, Gustavo Dantas. II. Harfuch, Leila. III. Título.

26-338790.2 CDD-637.181

Índices para catálogo sistemático:

1. Agropecuária sustentável : Tecnologia agrícola 637.181

Camila Aparecida Rodrigues - Bibliotecária CRB - SP-010133/O

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Pasture degradation is a multifaceted problem with negative environmental, economic, and social effects that impact communities and producers' livelihoods. In light of the serious problems caused by degradation, it has become necessary over the years to develop agronomic strategies for soil correction and stewardship, with a view to reversing undesirable livestock production trends. In this context, pasture recovery and conversion practices have emerged, encompassing several sustainable production processes and systems.

With a growing awareness of the problem and Brazil's commitment to global agendas for combating climate change, several public policy initiatives have been implemented in recent years regarding this issue. The most recent one, in 2023, was the National Program for Converting Degraded Pastures into Sustainable Agricultural and Forestry Production Systems (PNCPD), which was renamed Caminho Verde Brasil (Brazil Green Way), which aims to provide new arrangements for financing degraded pasture recovery, in synergy with other policies. The program gave rise to a Plan for Prioritizing Areas and Estimating Investments for Pasture Conversion (Brazil, 2024[1]). The study quantified and located the problem, defined the amount of financial resources required for addressing it, and classified the properties where degradation is widespread. It also opened up the opportunity for an approach focused on family farming (AF) – outside the initial focus of the PNCPD – and for a specific look at the subnational context, which is the context of this study.

[1]BRASIL (2024). Conversão de pastagens degradadas em sistemas de produção agropecuários e florestais sustentáveis: Priorização de áreas e estimativas de investimentos. Ministério da Agricultura e Pecuária. Secretaria de Inovação, Desenvolvimento Sustentável, Irrigação e Cooperativismo; Centro de Inteligência para Governança de Terras e Desenvolvimento Sustentável; Agroicone; Imaflora; Grupo de Políticas Públicas da ESALQ. – Piracicaba, SP, MAPA, 2024. Disponível em: https://agroicone.com.br/publicacao/conversao-de-pastagens-degradadas-em-sistemas-de--producao-agropecuarios-e-florestais-sustentaveis-priorizacao-de-areas-e-estimativas-de-investimentos-brasil/

Given this context, this study aims to analyze the degraded pasture scenario in Pará state, focusing on small rural properties (up to four fiscal modules) from a holistic perspective that takes into account the socioeconomic context of rural properties, their inclusion in agricultural policy (especially rural credit), and their suitability for pasture recovery and conversion using sustainable production systems. The state of Pará was chosen for its importance in agricultural production, as well as being second in the ranking of nine priority states for pasture intensification/conversion detailed in Brazil (2024).

The performed analyses resulted in findings that are relevant for designing strategies that can guide federal, state, and municipal public policies, as well as private policies, third sector policies, and partnership arrangements in Pará State. Some findings can be summarized as follows:

- Small rural properties, mostly linked to family farming, account for a significant portion of pasture degradation in Pará and play a strategic role in solving the environmental problems of cattle ranching: the degraded pasture area totaled 6.6 million ha in the state's 276,700 CARs (2022). In the 203,800 properties with up to 4 FM and at least one hectare of pasture (focused property group), the degradation area reaches 2.7 million ha, or 40,7% of the total;

- Mapping the territory is essential for diagnosing the situation, helping to understand the overall picture and the priority regions for the recovery agenda: on the focused properties, 50% of the degraded pasture area is distributed across 12 municipalities, concentrated in the southeastern portion of the state: São Félix do Xingu (151,900 ha), Marabá (141,200 ha), Santa Maria das Barreiras (133,500 ha), Conceição do Araguaia (128,800 ha), Santana do Araguaia (112,400 ha), Eldorado do Carajás (111,500 ha), Novo Repartimento (104,800 ha), São Geraldo do Araguaia (98,900 ha), Água Azul do Norte (95,500 ha), Piçarra (89,700 ha), Floresta do Araguaia (83,500 ha), Tucumã (74,900 ha);

- In family farming, reduced availability of land is an issue that demands greater attention, given that degradation processes tend to expose producers to greater productive, environmental, and socioeconomic risks: 39,200 (19.2%) of all focused CARs in the state have more than 50% of the CAR area with pasture in some degree of degradation. Municipalities such as São Geraldo do Araguaia and Piçarra stand out with average percentages above 70%;

- A more holistic analysis of the pasture degradation scenario, considering socioeconomic dimensions, is essential for defining more effective strategies for solving the problem. Certain vulnerabilities persist in the

state in the context of the focused properties, which gives rise to the need to guide other agricultural policy instruments, as well as other public policies, in the pursuit of sustainable rural development: with regard to the socioeconomic characteristics analyzed in the context of the focused properties, based on the IDR-CAR[2], the profile is generally marked by shortcomings in the literacy of the rural population (Education dimension, with an average of 0.83 in the indicator, a value considered low, given that it only measures the ability to read/write); deficient access to water, as well as to waste and sewage disposal equipment (collective infrastructure dimension, with an average of 0.39); regions with still low adequacy of dwellings, with access to bathrooms, and access to piped water (infrastructure dimension, with an average of 0.9) and income at a medium to low level (income dimension, with an average of 0.58);

• The outlook for family farmers in Pará in terms of access to key public policies for sustainable transition causes concern, as is the extent of pasture recovery and conversion practices in this group: analyzing farmers' access to the main agricultural policy instruments for production system transitions, the situation for family farming establishments in the state causes concern, given that only 6.1% declared access to credit and 4.7% responded that they had received technical guidance (Agricultural Census/IBGE, 2017). Furthermore, only 4% declared the use of pasture recovery practices, such as limestone and other soil correctors. In an analysis of the focused properties alone, 30,700 (15.1%) properties took out credit at least once. The peak was in the 2022/23 harvest, with 11,000 CARs taking out credit, which accounts for only 5.4% of the total, followed by a downward trend in subsequent harvests.

• The trajectory of the still small group of targeted properties included in the credit policy presents important nuances for the policy. Both Pronaf and other credit programs showed a growing trajectory in the volume contracted, with an increase in non-Pronaf beneficiaries over the harvests and an oscillating trajectory among Pronaf beneficiaries: Of the 30,700 properties with a credit history, 26,300 (85.4%) are beneficiaries of the Pronaf and 4,500 (14.6%) are not, demonstrating that, within the same land tenure structure (up to 4 MF), there are different producer profiles (family and non-family). This distinction is also reflected in contracting profiles and reveals important patterns to be considered in the agenda for the recovery of degraded pastures.

  o The volume of credit contracted by the target audience between the 2019/20 and 2024/25 harvests was R$ 9.3 billion, with R$ 4.2 billion (45.7%)

[2] Economic development indicator for rural properties. It considers dimensions related to education, income, and household and community infrastructure. For more information, see the full report.

in Pronaf and R$ 5 billion (54.3%) in other programs. In both groups, the trend is upward;

- While in the non-Pronaf group there was growth in the number of properties contracting credit over the harvests in Pronaf, an oscillating trend was observed. Also regarding the entry and retention of properties within the credit policy, the pattern in Pronaf is one of increased property retention, coupled with a decrease in the rate of new producers entering the program; among non-Pronaf beneficiaries, there is stability in the entry of new producers and an increase in the retention of existing producers.

- In the focused properties, Pronaf is targeted almost entirely on livestock, with 89.1% of the funds going to purchasing cattle and 10.9% to real investments in improvements for production systems;

- Among non-Pronaf beneficiaries, a more balanced use of credit was noted between agriculture and livestock, with percentages of 46.8% and 53.2% throughout the period, respectively. R$ 2.1 billion (89.7%) of the R$ 2.6 billion allocated to livestock farming was used for purchasing cattle, which represents a real investment rate (improvements in farms) of 11.2% for the period;

- Within the contracted credit, family farmers are less involved in the journey towards sustainable agriculture and livestock ranching than non-Pronaf beneficiaries. In the 2024/25 harvest, the proportion of credit with the potential for mitigating negative environmental externalities in Pronaf was 10.3%, while it was 37.9% in non-Pronaf beneficiaries;

• Considering properties with a history of credit contracts, there is an opportunity for responding to the problem in the short and medium term, with the potential to reach 23.5% of the focused properties' degraded area; the remaining area (76.5%) depends on combined medium- to long-term actions, creating conditions for a fair climate transition: 6,400 (3.2%) producers with a history of credit for interventions with sustainable potential, totaling 80,400 ha (3%) of degraded pasture area; ii) 24,200 (11.9%) producers with a history of credit, but not classified as having sustainable potential, totaling a degraded area of 548,200 ha (20.5%); and iii) 173,000 producers (84.9%) without a history of rural credit, concentrating the largest area of degraded pasture, 2 million ha.

Degraded pastures pose a significant challenge to Brazilian agricultural sector. At the same time, they represent an opportunity for increases in productivity, resilience, reduction of negative environmental externalities, and improvement in the lives of rural producers. This opportunity is even more evident in the

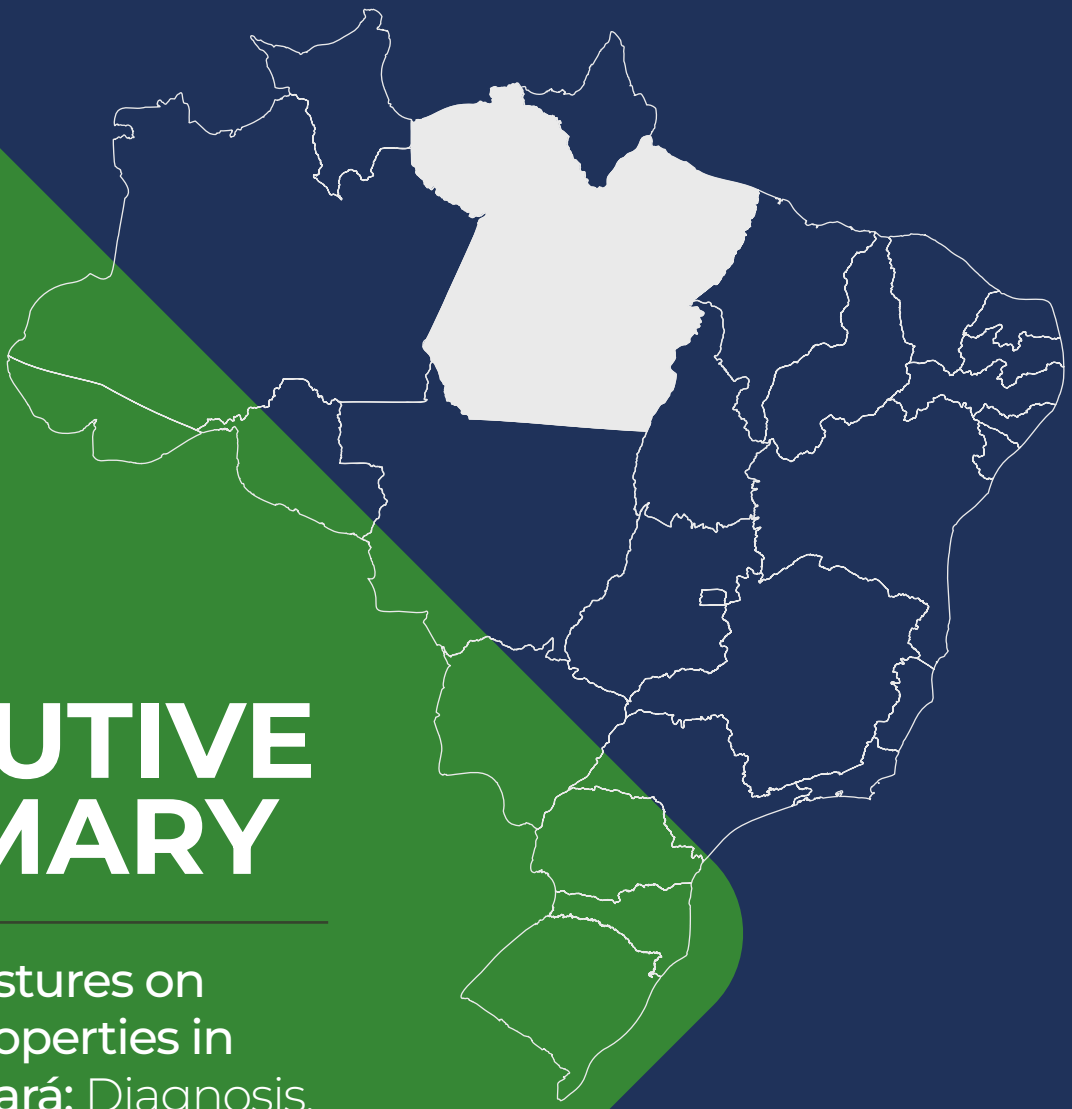
context of family farming, since livestock farming is the main activity of this group, in addition to the predominance of degraded areas on smallholdings. However, the challenges for promoting the intensification/conversion of these areas are significantly greater in the context of family farming.

As the results of this study showed, access to agricultural policy instruments, such as credit and technical assistance, remains limited. Socioeconomic issues such as income, education, and infrastructure also constitute potential bottlenecks in the process of recovering degraded areas, since producers with limitations in meeting their basic needs have less room to engage in the productive transition.

These bottlenecks appear to affect family farmers more acutely compared to small non-family producers. Even with similar land tenure structure, both access to credit and the allocation of these resources toward investments in improving production processes show distinct patterns, highlighting the need for close attention to family farming and how credit can serve as an instrument of change, aiming to foster a just, resilient, and sustainable productive transition.

Furthermore, mappings such as the one carried out by this study allow for the identification of producers already engaged in the transition process; as well as those more likely to engage via credit instruments, and those who require broader public policy support, especially those who have never accessed credit.

This articulation between policies and the identification of different challenges for small producers must be specific, depending on the territory. The definition of action strategies, as well as engagement with producers, must be carried out in a coordinated manner, through efforts by governments, cooperatives, the supply chain, and the rural producers themselves, in order to identify local specificities and customize actions according to these characteristics.



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