

Fractional Farmland in Brazil: Regulatory, Financial, and Digital Pathways

Gabriel Rondon

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Abstract

Brazil holds one of the largest and most productive farmland bases in the world, yet direct ownership remains the privilege of large producers and institutional investors. This paper develops a blueprint for fractional access that aligns Brazilian legal advances—notably *Patrimônio Rural em Afetação* (PRA) and the expansion of FIAGRO vehicles—with digital distribution models including tokenized securities. We synthesize market momentum, regulatory guardrails, operating structures, and risk controls required to commercialize farmland fractions online while safeguarding producers, investors, and regulators.

1 Why Fractional Farmland Now

Brazilian farmland appreciates faster than most financial assets—the FGV Agri-Finance Index reports a compound annual increase of 11.4 % between 2019 and 2024—while production continues to shatter records, with Conab forecasting a 320 million ton grain harvest for 2024/25.[\[2, 1\]](#) The macro tailwinds combine export demand, a competitive currency, and dramatic productivity gains delivered by precision agriculture.

Despite that strength, retail investors remain largely excluded. Acquisition tickets above R\$100,000, opaque farm management practices, and limited secondary markets prevent smaller investors from participating. CVM data show that fewer than 5% of regulated crowdfunding portals list rural assets, and most FIAGRO funds target institutional clients.[\[7, 3\]](#)

Legal reforms now unlock alternatives. Law 13.986/2020 (“Lei do Agro”) created the *Patrimônio Rural em Afetação* (PRA), allowing landowners to segregate portions of a farm as isolated collateral and issue multiple *Cédulas Imobiliárias Rurais* (CIR).[\[4\]](#) Coupled with electronic registries and digital signatures, PRA makes it possible to finance land in modular slices without transferring full title. In parallel, CVM sandbox initiatives and tokenized CRA issuances (such as the 2024 Vórtx QR cohort) demonstrate that blockchain-based distribution can comply with Brazilian securities law.[\[11\]](#)

The convergence of appreciating farmland, regulatory flexibility, and digital rails invites a new model: fractional access that protects producers, satisfies regulators, and delivers transparent, data-rich investments to a broader audience.

2 Market Landscape

2.1 Brazilian Snapshot

Brazil cultivates roughly 340 million hectares when cropland, pasture, and planted forests are combined, and the frontier continues to expand in Matopiba, Mato Grosso, and the Midwest.[\[1\]](#)

Institutional investors have already embraced the asset class: more than ninety FIAGRO vehicles manage R\$15.6 billion (October 2025) and agribusiness securitizations through CRA and CPR exceeded R\$100 billion in 2024, providing reference yield curves for long-term lease and production-sharing agreements.[3, 5]

Retail access, in contrast, is marginal. Crowdfunding portals rarely host fee-simple farmland due to high cadastral and legal overhead, focusing instead on cattle or receivable financings. The PRA+CIR combination allows producers to carve out fractions of land, register each slice electronically, and extend guarantees without selling the underlying title. Combined with digital onboarding and transparent agronomic data, this framework can close the distance between land operations and investors distributed across Brazil or abroad.

2.2 Global Comparables

International precedents show that fractionalization succeeds when farm management is professionalized, data transparency is high, and exit windows are clearly planned. Platforms such as AcreTrader and FarmTogether in the United States or MyFarm in New Zealand offer valuable heuristics on ticket size, structure, and investor expectations. Table 1 summarises representative models and the performance ranges they seek.

Table 1: Selected International Fractional Farmland Platforms

Platform	Structure	Ticket (local)	Target IRR
AcreTrader (US)	Series LLC per farm, Reg D crowdfunding	US\$ 10k	8–12% ^[12]
FarmTogether (US)	SPV with professional operators	US\$ 15k	6–10% ^[12]
MyFarm (NZ)	Cooperative equity + managed farm leases	NZ\$ 50k	9–11%
Cultivate Farms (AU)	Joint ventures with aspiring farmers, revenue-sharing	AU\$ 15k	7–9%

Three lessons cut across these international case studies. First, investors demand professional managers with clear farm operating agreements. Second, exit mechanics are pre-defined—usually five to ten years via scheduled asset sales or mandatory buybacks. Third, secondary liquidity is curated through bulletin boards or internal market-makers rather than fully open exchanges; price discovery depends on periodic valuations and transparent KPIs.

3 Regulatory Architecture

3.1 Land Ownership and Cadastre

Law 5.709/1971 and Decree 74.965/1974 still frame the discussion on rural land for foreign investors: area limits per municipality, national security restrictions, and INCRA oversight extend to structures where foreign capital exerts control. Fractional projects therefore require transparent beneficial ownership records and, in certain municipalities, limits on accumulated hectares. Accurate cadastre is equally essential. INCRA’s SIGEF platform and the nationwide Rural Environmental Registry (CAR) demand georeferenced surveys before PRA fractions can be registered, preventing overlaps or environmental liabilities from spilling into the new patrimony. The federal regularization agenda (Law 14.011/2020 and Decree 10.592/2020) may broaden the land supply pipeline, but only for properties that meet environmental compliance.

3.2 Securities and Funds

CVM Resolution 175/2022 consolidated the FIAGRO rulebook, enabling funds to hold rural property, agribusiness equity, and structured credit such as CPR, CIR, and CRA while imposing governance, diversification, and disclosure requirements tailored to agro assets. CVM Resolution 88/2022 upgraded the equity crowdfunding regime, lifting the offer cap to R\$15 million per twelve months, defining investor caps, and mandating rigorous disclosure and suitability workflows—parameters that token platforms must respect when offering PRA-linked securities to retail investors. Finally, CVM sandbox decisions in 2024 validated tokenized CRA structures: tokens were treated as digital certificates anchored to legally registered securities, provided that custody, AML, and market conduct obligations mirrored the traditional market.[\[6, 7, 11\]](#)

3.3 Tax and Compliance

From a tax perspective, FIAGRO distributions to individual investors can be exempt when the fund meets the same concentration thresholds applied to FIIs (no investor above 10%, free float above 50 investors). Corporate investors, by contrast, face a 20% withholding. CIR coupons follow the standard financial income tables; managers often combine amortizations and coupon structures to smooth out tax incidence. On the compliance side, platforms must embed AML/KYC procedures aligned with Central Bank Circular 3.978/2020 and the crypto reporting regime (Normative Instruction 1.888/2019) whenever tokens are negotiated or custody is delegated to digital wallets.

4 Patrimônio Rural em Afetação (PRA)

4.1 Concept and Mechanics

Law 13.986/2020 allows the owner of rural real estate to segregate all or part of a property into an autonomous patrimony (PRA) that is ring-fenced from other liabilities.[\[4\]](#) Each PRA must be georeferenced, registered, and accompanied by proof of CAR compliance.

4.2 Credit and Fractional Use Cases

Consider a 1,000-hectare row crop farm in Mato Grosso that is segmented into five PRA units of 200 hectares each. The georeferenced map is filed with the local registry and mirrored in SIGEF/CAR, making every fraction a self-contained collateral pool. The producer can then issue a CIR on each PRA slice; valuation follows ABNT NBR 14653-3 appraisal standards and registration occurs in authorized electronic registries such as B3 or CERC, which timestamp the lien order and allow investors to audit encumbrances on demand. Because enforcement is limited to the affected fraction, the producer shields the remainder of the property from cross-defaults, while investors price recovery scenarios with precision.

Fractional platforms leverage this modularity in several ways. FIAGRO funds can purchase the CIR and securitize the cash flows into CRA notes for institutional investors, while crowdfunding portals wrap the same instrument into digital quotas that retail investors subscribe to under CVM Resolution 88. Token pilots add another layer by representing each PRA-backed CIR as a smart contract with programmed rent distribution and collateral triggers. In all cases, the combination of PRA and CIR transforms historically indivisible land assets into bankable, auditable building blocks for portfolio construction.

4.3 Implications for Fractional Ownership

Combining PRA with tokenized CIR enables investors to hold yield-bearing instruments linked to specific land tracts without triggering full property transfer. This supports revenue-sharing structures, net lease arrangements, or rent-to-own models marketed online under CVM Resolution 88 (crowdfunding) or inside FIAGRO vehicles for sophisticated investors.

4.4 Financial Instruments under Lei 13.986/2020

Table 2: Key Instruments Introduced or Enhanced by Lei 13.986/2020

Instrument	Legal Basis	Relevance to Fractionalization
Cédula Imobiliária Rural (CIR)	Arts. 11-A to 11-H of Law 8.929/1994 (as amended)[4]	Negotiable credit note secured by PRA or rural property; partial liens allow multiple investors to hold slices of the same farm with priority defined by registration order.
Cédula de Produto Rural (CPR)	Law 8.929/1994 with Lei 13.986 updates[4]	Authorizes financial settlement, FX indexation, and derivatives hedging; electronic CPR (e-CPR) can be coupled with PRA to tokenize crop revenue streams.
CDA/WA (Warehouse Certificates)	Law 9.973/2000, amended by Lei 13.986[4]	Strengthens electronic issuance and fiduciary liens on stored commodities, enabling blended collateral packages (land + inventory).
Fiduciary Alienation Enhancements	Art. 56, Lei 13.986[4]	Streamlines enforcement timelines for rural collateral (extrajudicial execution within 120 days), improving investor recovery prospects.
Electronic Registries Mandate	Art. 12-A, Lei 8.929/1994 (amended)[4]	Makes registration in authorized entities (B3, CERC, RTM) mandatory, creating a trusted digital layer for wrapping instruments into tokens.

These instruments collectively allow a fractional platform to combine asset-backed income (rent or crop-sharing) with enforceable collateral, increasing bankability of small tranches and enabling securitization or token issuance without losing regulatory compliance.

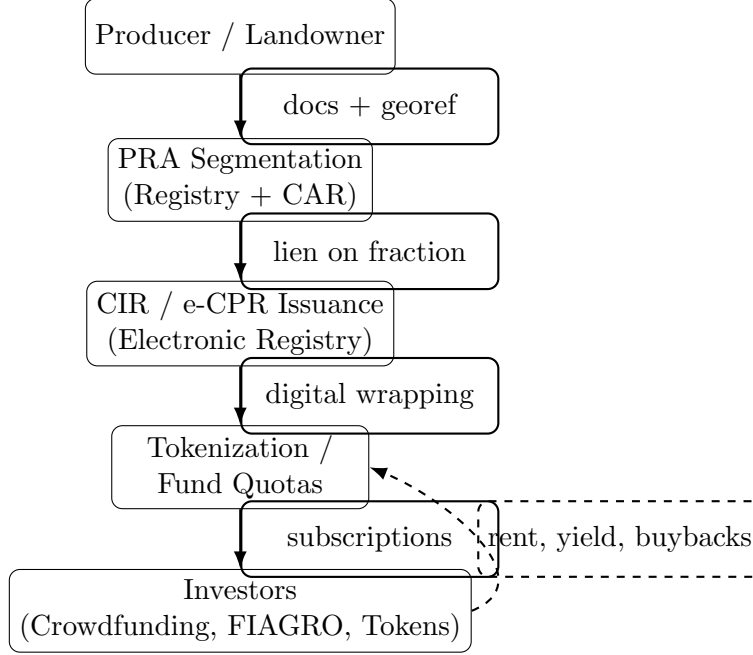


Figure 1: Pipeline from landowner to investors using PRA + CIR + token layers.

4.5 Regional Logistics and Incentives

Minas Gerais and São Paulo. Uberlândia and Uberaba anchor a multimodal corridor that connects BR-050/262 to the port of Santos, turning the Triângulo Mineiro into a natural hub for grain logistics. Minas Gerais’ Desenvolve Agro program grants ICMS credits of up to 90% for projects that formalise PRA structures and adopt climate-smart technologies, while complementary credit lines from BDMG/BNDES channel long-tenor financing for storage and irrigation upgrades.[8, 10] On the São Paulo side, ProAvança Agro defers ICMS on imported farm machinery and inputs, and municipalities such as Ribeirão Preto or Araçatuba layer municipal tax abatements for agri-industrial SPEs, reducing the cost of establishing operating companies that issue PRA-backed instruments.[9]

Mato Grosso do Sul. Completion of the Bioceanic Corridor (Campo Grande–Porto Murtinho–Paraguai–Chile) is expected to cut transit time to Asian ports by up to eight days, materially improving netbacks for soybean and corn exporters. The state couples this logistic upgrade with MS Empreendedor Rural, a program that grants ICMS/ITCMD reductions to ventures that create rural employment and integrates them with Banco do Brasil’s FCO Rural lines for 12-year financing at single-digit rates. These incentives are ideal for PRA projects that must absorb upfront cadastre and registry costs before reaching scale.

Mato Grosso. Brazil’s soybean epicentre relies on BR-163, Ferronorte rail, and the Tapajós/Teles Pires waterway network to move grain toward northern arc ports. PRODEIC Agroindustrial offers ICMS credits of up to 70% for agro-industrialisation investments, an important lever for fractional structures that align producer capex with investor capital. The state development secretariat also accelerates CAR/SIGEF compliance workshops, helping producers clear environmental prerequisites before slicing farms into PRA units.

Paraná. An integrated logistics grid—BR-277, the Ferrovia Sul, and the Port of Paranaguá—supports diversified export flows that include grains, poultry, and pork. Paraná Competitivo and Banco do Agricultor Paranaense inject subsidised credit for irrigation and automation, while cooperative networks (Coamo, Integrada) provide governance blueprints for community-scale fractional programmes. These ingredients create a favourable environment for launching PRA pilot tranches that can later migrate into FIAGRO portfolios.

5 Operating Model Blueprint

5.1 Structuring Options

Fractional programs can be hosted inside FIAGRO funds, stand-alone special-purpose entities (SPE) that hold PRA fractions, or hybrid cooperative/fintech partnerships. Each choice balances governance complexity, cost, and investor base.

Table 3: Comparative Overview of Legal Vehicles

Vehicle	Advantages	Constraints	Recommended Use
FIAGRO (closed-end)	Tax-efficient distributions, investor familiarity, ability to mix land and credit assets, B3 listing for liquidity.	Higher setup and custodial costs; compliance tailored to qualified/retail tests; slower onboarding cycle.	Institutional investors and sophisticated retail seeking diversified exposure.
SPE + PRA + CIR	Modular, direct link to specific land fraction, adaptable to token issuance and crowdfunding under Res. 88.	Requires meticulous registry work, recurring appraisals, and attention to foreign-ownership caps per municipality.	Retail deals, sandbox pilots, or bespoke institutional mandates.
Cooperative / fintech hybrid	Leverages cooperative governance and agronomic expertise; aligns incentives between producers and investors.	Governance and decision-making may be slower; scaling nationwide is harder.	Community-based fractionalization or ESG-oriented strategies.

5.2 Governance Stack

The governance architecture mirrors private equity with agronomic specialisation. A manager or general partner curates assets, negotiates leases, structures PRA/CIR documentation, and reports to investors. The agronomic operator—often a local cooperative or professional farm management firm—executes the crop plan under performance-based incentives. A fiduciary agent and custodian supervise cash segregation, covenant compliance, and liaise with registries; they also trigger enforcement if debt covenants fail. An advisory council comprising investor representatives, producer

liaisons, ESG specialists, and compliance officers aligns incentives and arbitrates strategic decisions.

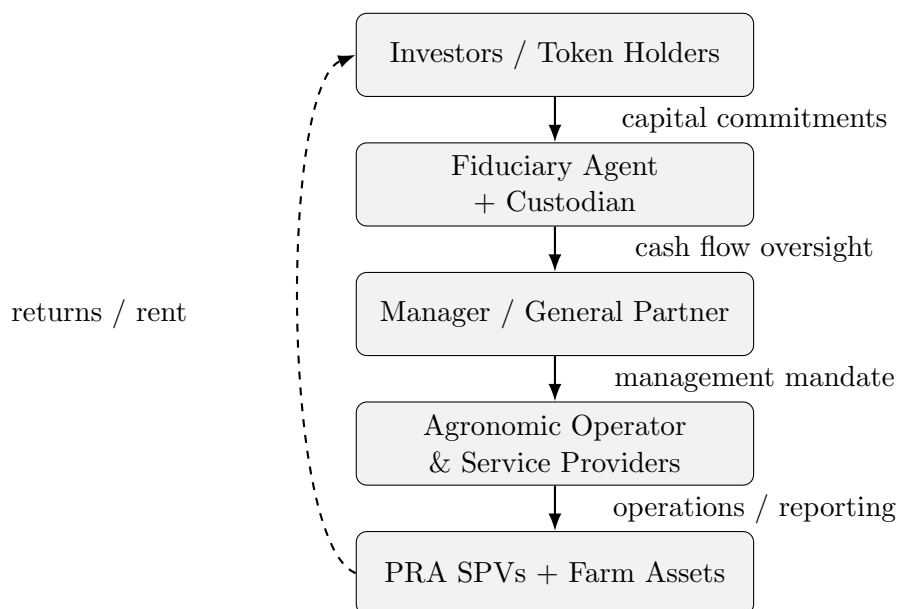


Figure 2: Governance and cash-flow oversight stack for PRA-based fractional structures.

5.3 Cash Flow and Liquidity

Revenue typically comes from leases or partnership arrangements where investors receive a fixed rent plus performance kicker tied to productivity. These inflows run through a waterfall: operating expenses and agronomic capex first, followed by insurance premiums, a reserve fund (normally 5–8% of gross revenue), management and fiduciary fees, and finally investor distributions. Liquidity is engineered rather than left to chance. Scheduled redemption windows, secondary bulletin boards, and securitization of seasoned PRA tranches into CRA provide optional exits. Commodity derivatives, FX hedges, and multi-risk insurance complete the defensive toolkit against price and climate volatility.

6 Digital Commercialization Roadmap

6.1 Investor Journey

The investor journey begins with a digitally native onboarding flow. Platforms collect identity credentials, fiscal data, and suitability responses, integrating Open Finance feeds when available to accelerate KYC/AML checks mandated by Res. 88 and Bacen Circular 3.978. Once approved, investors review risk factors and subscribe to PRA-backed quotas or tokens, settling transactions via Pix or DVP with B3 custody. Post-investment, dashboards display agronomic telemetry (NDVI, rainfall deviations, soil indicators), financial metrics, ESG scorecards, and covenant status. Liquidity events are pre-programmed: annual redemption windows, secondary bulletin boards, or conversion of matured tranches into CRA/FIAGRO quotas provide investors with exit paths.

6.2 Technology Stack

Digitizing fractional farmland requires infrastructure that reconciles the legal layer (registries and contracts) with real-time agronomic data. Platforms typically deploy a permissioned blockchain such as Hyperledger Fabric or Corda, operated by a consortium comprising the manager, fiduciary agent, and registrar. Smart contracts automate rent distributions, reserve allocations, and covenant checks. Independent code reviews and SOC 2 compliance guard against cyber incidents. Data oracles ingest satellite imagery (Embrapa Territorial, MapBiomass), Conab price feeds, and climate APIs to trigger alerts whenever productivity or weather deviates from plan. Integration with registry APIs (B3, CERC, RTM) keeps the token ledger synchronized with the legally registered CIR to maintain enforceability.

7 Risk Management

Fractional structures must treat risk as a first-class citizen. **Title and survey risk** is addressed through SIGEF-certified surveys, legal opinions on chain-of-title, and PRA ring-fencing so that enforcement affects only the relevant fraction. **Agronomic risk** is mitigated by diversified crop plans, crop insurance (Proagro, private multi-risk), irrigation and soil management investments, and climate resilience programmes. **Regulatory risk** demands constant monitoring of CVM updates, foreign ownership debates (such as PL 2963/2019), and tax reforms; legal clauses should allow adjustments to covenant structures if regimes change. **Operational and cyber risk** require SOC 2-certified infrastructure, robust key management, independent smart-contract audits, and incident response plans. Finally, **liquidity risk** is managed by establishing redemption calendars, lining up market makers, and communicating expected exit windows well in advance.

8 Annex A: Investor Disclosure Checklist

Aligned with CVM Resolutions 175/2022 and 88/2022, the disclosure package must read like a data room rather than a marketing brochure. Each thematic block below outlines the minimum information that fractional sponsors should release and update throughout the investment cycle.

8.1 Risk Factors

Disclose the full cadastral status of the property, including INCRA certificates, CAR documentation, PRA segmentation maps, and proof that prior liens have been cleared or ranked. Detail agronomic risk by sharing historical yield data, climatic stress events, pest and disease records, and current insurance policies with coverage limits and counterparties. Market risk requires commodity price benchmarks, FX exposures for export-oriented farms, and the hedging toolkit in place (futures, options, over-the-counter swaps). Close with counterparty analysis: operator track record, compliance certifications, concentration of off-takers, and any related-party arrangements that may affect cash flows.

8.2 Governance and Operations

Investors expect a clear organisational chart highlighting the manager, fiduciary agent, custodian, agronomic operator, and advisory council, with contractual responsibilities and remuneration spelled out. Explain voting rights, quorum thresholds, and how investors are consulted (assemblies,

digital ballots, reporting dashboards). Provide a reporting calendar that commits to quarterly financial statements under IFRS or BR GAAP, monthly agronomic KPI dashboards (yield, NDVI trend, soil metrics), and ESG scorecards. Include contingency procedures for replacing key service providers if performance deviates from agreed standards.

8.3 Liquidity and Exit

Document lock-up periods, redemption windows, and any caps on secondary transfers. If a bulletin board or market maker is offered, describe the matching mechanics, pricing methodology, and expected spread/fees. Clarify penalties or notice periods for early exits, especially when redemptions require asset sales. The distribution waterfall should set out the priority of payments—operating expenses, insurance, reserve funding, fees, investor distributions—and explain how exceptions are handled during stress events.

8.4 ESG and Compliance

Summarise environmental compliance (CAR validation status, PRA approval, embargo checks), and describe ongoing monitoring of deforestation or water usage through platforms such as Map-Biomass or ANA. Outline labour standards, including adherence to NR-31 safety regulations, worker housing conditions, and community engagement plans. Governance disclosures should list external audits, frequency of cyber/information security reviews, data protection practices, and the incident response playbook, demonstrating alignment with Bacen Circular 3.978/2020 and LGPD expectations.

8.5 Digital Asset Specifics

For tokenized offerings, describe the token standard and smart-contract architecture, custody setup (self-custody, third-party wallets, or qualified custodians), and results of independent code audits. Explain on- and off-ramp processes such as Pix or delivery-versus-payment with B3, including settlement times, reconciliation routines with registries, and fallback procedures if blockchain or registry services face downtime. Close with investor obligations for tax reporting under Normative Instruction 1.888/2019 and guidance on how transaction data will be shared with Receita Federal.

9 Implementation Timeline

The operational roadmap spans four quarters and alternates between regulatory enablement, asset onboarding, and investor experience upgrades. Each milestone pairs legal or cadastre work with technology and distribution deliverables so that compliance gates do not lag product launch.

10 Conclusion

Fractionalizing Brazilian farmland is no longer a theoretical exercise. PRA and FIAGRO frameworks, combined with digital registries and tokenization pilots, provide the legal and technological rails to commercialize land fractions online. Success hinges on meticulous cadastre work, robust governance, transparent data, and investor education. The next phase of this research will deliver detailed operating manuals, disclosure templates, and sandbox-ready documentation to bring the model to market responsibly.

Table 4: Suggested 12-Month Execution Plan

Quarter	Key Deliverables
Q1 2026	Finalize PRA structuring manual and compliance playbook; secure notary partnerships in MG/SP; configure registry API integrations; submit CVM sandbox application if the token route is pursued.
Q2 2026	Launch pilot farm with two to three PRA tranches; onboard inaugural investor cohort with full KYC/AML workflow; deploy agronomic IoT and satellite data feeds into reporting dashboards.
Q3 2026	Open secondary bulletin board with controlled liquidity windows; package mature tranches into CRA for institutional sale; commission independent smart-contract and cybersecurity audits.
Q4 2026	Publish annual performance and ESG report; run liquidity stress test and refine reserve policy; evaluate expansion to Matopiba assets and initiate dialogue with foreign investor channels.

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