



LOW-EMISSION RURAL DEVELOPMENT (LED-R) AT A GLANCE

- Newest Brazilian state, located in the Tocantins-Araguaia Hydrographic Region (largest watershed entirely within Brazilian territory)
- Comprised of Amazon (13%) & Cerrado (87%) biomes, each with distinct environmental policies & governance
- Part of NE Brazil's MATOPIBA region: agricultural frontier of Cerrado spanning Maranhão, Tocantins, Piauí, & Bahia states
- Agriculture & ranching represent majority of land use; private landowners active in soy & livestock sectors influence local & national politics
- 2008-2017: 947,287 ha of natural forest converted to soy & livestock areas
- 3rd ranking state in terms of number of contracts under the national Low-Carbon Agriculture Plan (ABC), with 784 contracts (signed 2018-2019) totaling ~USD 44 million in finance

DRIVERS OF DEFORESTATION

- Large-scale cattle ranching
- Small-scale cattle ranching
- Large-scale agriculture
- Small-scale agriculture
- Fire
- Transportation infrastructure
- Small-scale illegal logging
- Small-scale coal mining

AVERAGE ANNUAL EMISSIONS FROM DEFORESTATION

0.56 Mt CO₂ (2010-2015)
Includes above-ground biomass, below-ground biomass, & litter

AREA

277,721 km²

POPULATION

1,573,984 (2018)

HDI

69.90 (2010)

GDP

USD 7.94 billion (2015, Base year 2010)

GINI

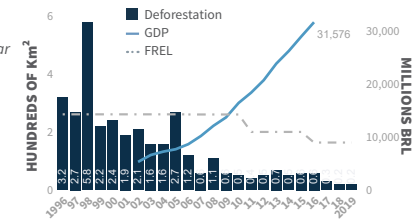
0.504 (2015)

MAIN ECONOMIC ACTIVITIES

- Public services
- Trade
- Services



Data sources:
Socio-economic: IBGE
Deforestation: PRODES

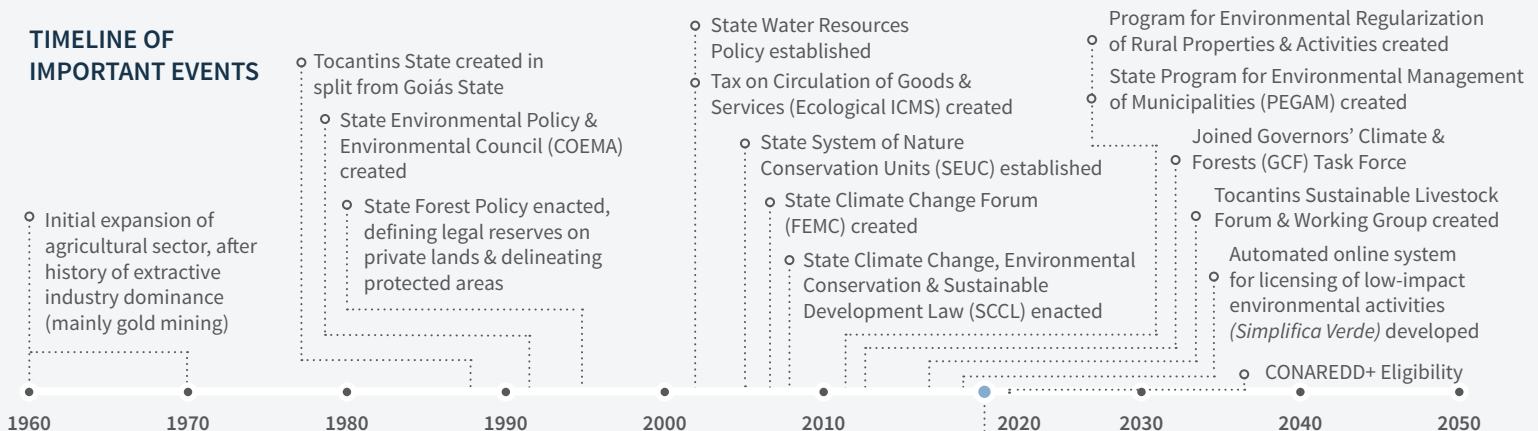


SPOTLIGHT ON INNOVATION

The Integrated Sustainable Regional Development Project (PDRIS) was Tocantins' umbrella program for offering loans to support various state secretaries and policies. Since the project's inception in 2012, the World Bank anticipated that the US\$ 300 million loan would directly benefit 300,000 people in 72 counties — aiming to address some of the challenges that Tocantins faces as a relatively new state. Financed by the International Bank for Reconstruction and Development (IBRD) and implemented by the State Secretariats of Finance (SEFAZ) and Planning (SEPLAN), PDRIS aimed to improve transportation infrastructure and support balanced development that throughout the state, rather than concentrated in certain areas. To meet these objectives, PDRIS created employment opportunities and promoted activities to strengthen

environmental education statewide. PDRIS offered loans to different state secretariats (SEMARH, SEAGRO) to develop programs relevant to their respective scopes of work. For example, PDRIS financed SEPLAN's Socioeconomic Impact Evaluations (AISA), and contributed to the development and updating of state environmental policies, including the SCCL and forthcoming PES policy. PDRIS also included a Plan for IP (PPI), which regulates social and environmental impact assessments, and monitoring and evaluation plans, for projects affecting IP in select communities. PDRIS funds also supported development of the jurisdictional REDD+ program and a state MRV system, including forest inventories aligned with the Brazilian Cerrado FREL, proposed baseline, and benefit-sharing scenarios.

TIMELINE OF IMPORTANT EVENTS



PLEDGES & COMMITMENTS

1 Reduce deforestation 80% below baseline. **2** Avoid 8.5-10.5 million tons CO₂ emissions from agricultural activities. **3** Limit emissions 80-95% below 1990 levels [reduce annual deforestation in Cerrado 40% below 1999-2008 average by 2020, zero illegal deforestation by 2050]. **4** Reduce GHG emissions 37% below 2005 level. **5** Contribute to national goal: Restore 12 million ha deforested land. **6** By 2025, reduce forest fires by 15% of the 2009-2020 average, and reduce illegal deforestation 100% relative to the 2016-2020 moving average.

JURISDICTIONAL

NATIONAL

Rio Branco Declaration¹

State Low Carbon Agriculture Plan (ABC-TO)²

Under2 MOU³

Nationally Determined Contribution (NDC) to UNFCCC⁴

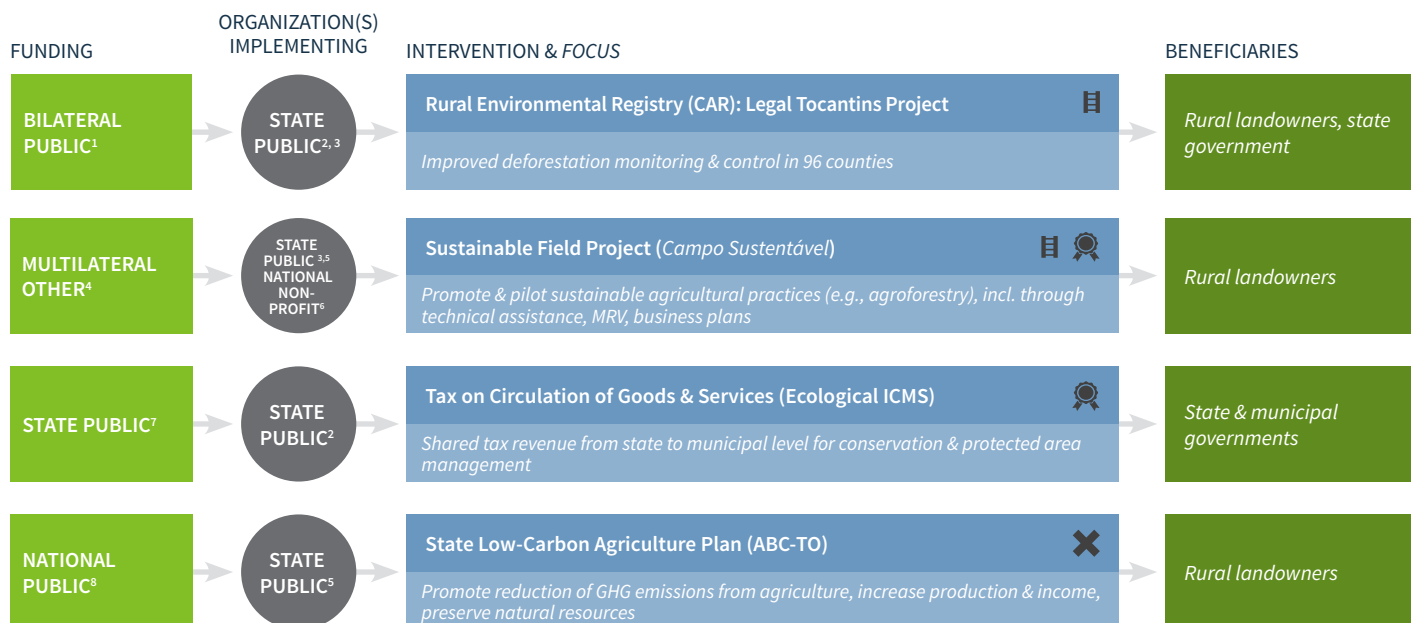
Bonn Challenge⁵

PPCDIF⁶

◆ Part of international agreement or forum

KEY INTERVENTIONS

✕ DISINCENTIVES 📋 ENABLING MEASURES 🏆 INCENTIVES



1 Amazon Fund, 2 Tocantins Nature Institute (Naturatins), 3 State Secretary of Environment & Water Resources (SEMARH), 4 NICFI-UNDP/GCF-TF, 5 Secretary of Agriculture, Cattle Ranching & Aquaculture (SEAGRO), 6 Institute of Conservation and Sustainable Development (IDESAM), 7 State treasury, 8 Ministry of Agriculture (MAPA)

PROGRESS TO JURISDICTIONAL SUSTAINABILITY

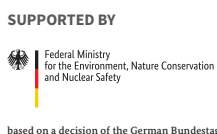
🟡 EARLY 🟠 INTERMEDIATE 🟢 ADVANCED

Integrated LED-R Strategy	🟠	<ul style="list-style-type: none"> Jurisdictional REDD+ program (under development) will cover both Amazon & Cerrado biomes, & align state targets & policies, including national & international technical & political requirements PPCDIF-TO (2021-2025) encompasses both Cerrado & Amazon regions, but resources are available at project rather than jurisdictional level
Spatial plan	🟠	<ul style="list-style-type: none"> State Ecological-Economic Zoning Plan (ZEE) passed into law (2012) as microzoning; a detailed ZEE is in final development & review stages, & will determine investments in degraded areas Recognition of indigenous peoples (IP) & local community (LC) rights & territories outlined in ZEE can become law following ZEE publication 92% of property area requiring registration is already registered in the CAR, though there is some overlap between recognized quilombola lands & titled private properties
Performance targets	🟠	<ul style="list-style-type: none"> PPCDIF-TO (2021-2025) sets targets to reduce forest fires by 15% of the average over the last 10 years and to reduce illegal deforestation 100% compared to the moving average over the past five years, by 2025 Governmental Working Group established to propose LED-R targets through multi-stakeholder dialogues, to convene in 2020
Monitoring, reporting & verification (MRV)	🟠	<ul style="list-style-type: none"> National Amazon deforestation data publicly available (PRODES & DETER); INPE PRODES-Cerrado tool monitors Cerrado conversion to other uses (annual) Environmental Management Intelligence Center (CIGMA) under development
Policies & incentives	🟠	<ul style="list-style-type: none"> SCCL establishes objectives & guidelines for reducing carbon emissions, including economic instruments to promote sustainable development Despite relatively high amount of rural finance contracts through ABC-TO, there is no system for monitoring emissions reductions
Multi-stakeholder governance	🟠	<ul style="list-style-type: none"> COEMA convenes federal, state, & civil society actors to approve & monitor all state environmental policies; meets regularly & publishes minutes online FEMC initiates consultation process for defining targets State Water Resources Council convenes federal, state, & civil society actors to approve & monitor the state water resource policy & its instruments (e.g., watershed committees as a tool for decentralized management)
Sustainable agriculture	🟠	<ul style="list-style-type: none"> Soy & beef from Tocantins carry high deforestation risk (legal & illegal) – reputational risk for commodity-purchasing companies Development of aquaculture industry (production increased 177% from 2010-2017) aims to increase low-emission protein production in already-degraded areas & water bodies, reducing pressure for cattle expansion Campo Sustentável (Sustainable Field) project promotes integrated agroforestry production systems
Indigenous peoples & local communities	🟡	<ul style="list-style-type: none"> Free, prior & informed consent (FPIC) is irregularly conducted in licensing processes, leading to conflicts between IP, public & productive agricultural sectors Almost all of the state's 12 IP territories are titled; however, land tenure conflicts persist
LED-R finance	🟠	<ul style="list-style-type: none"> Pró-Solar Program offers economic incentives (e.g., tax exemption) to civil society, counties & investors for generation & use of solar energy In 2022, the state's 139 counties will receive benefits through the Ecological ICMS for positive environmental performance

CITATION | M. de los Rios, A.C. Crisostomo, O. David, C. Stickler. 2021. "Tocantins, Brazil" in C. Stickler et al. (Eds.), in The State of Jurisdictional Sustainability. San Francisco, CA: EII; Bogor, Indonesia: CIFOR; Boulder, CO: GCF-TF.

COMPLETE REFERENCES & DATA SOURCES PROVIDED AT www.earthinnovation.org/state-of-jurisdictional-sustainability

2021/10/29
TECHNICAL TEAM



CHALLENGES & OPPORTUNITIES

CHALLENGES

- Frequent administrative turnover impacts continuity of policies & programs
- Political pressure from commodity producers & purchasers to expand agricultural & livestock areas, without territorial planning to control & regulate expansion
- Even with incentives (e.g., ICMS), counties face difficulties establishing strong environmental policies due to inadequate technical capacity &/or conflicting priorities
- Despite high number of rural finance contracts, high interest rates, poor technical assistance, & rigid bank requirements hinder producer access

OPPORTUNITIES

- SCCL is being revised to accommodate PES & REDD+ mechanisms
- State Climate Change & Environmental Services Policy, in legislative approval process, will implement a statewide PES system, including a jurisdictional REDD+ program
- Renewable energy sector with full potential to achieve identified reduction targets (Tocantins State Solar Energy Atlas)
- Implementation of zero-illegal deforestation commitments could mitigate reputational risks for sourcing companies
- Tocantins State is collaborating with other MATOPIBA states to develop a regional sustainable development strategy