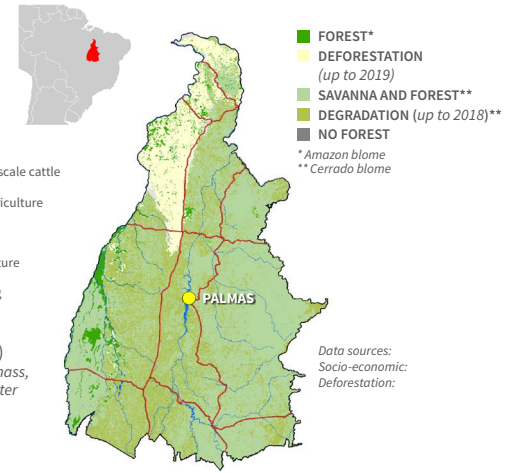




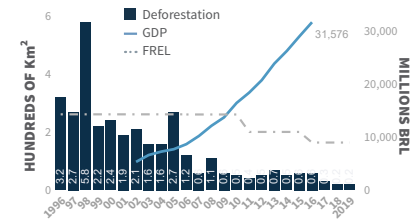
LOW-EMISSION RURAL DEVELOPMENT (LED-R) AT A GLANCE

- 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 to ~USD 44 million in finance

DRIVERS OF DEFORESTATION	Large and Small-scale cattle Large and Small-scale agriculture Fire Transportation infrastructure Small-scale illegal logging Small-scale coal mining
AVERAGE ANNUAL EMISSIONS FROM DEFORESTATION	0.56 Mt CO ₂ (2010-2015) <i>Includes above-ground biomass, below-ground biomass, & litter</i>
AREA	277,721 km ²
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
RURAL/URBAN POPULATION	22%/78%



Data sources: Socio-economic: Deforestation:

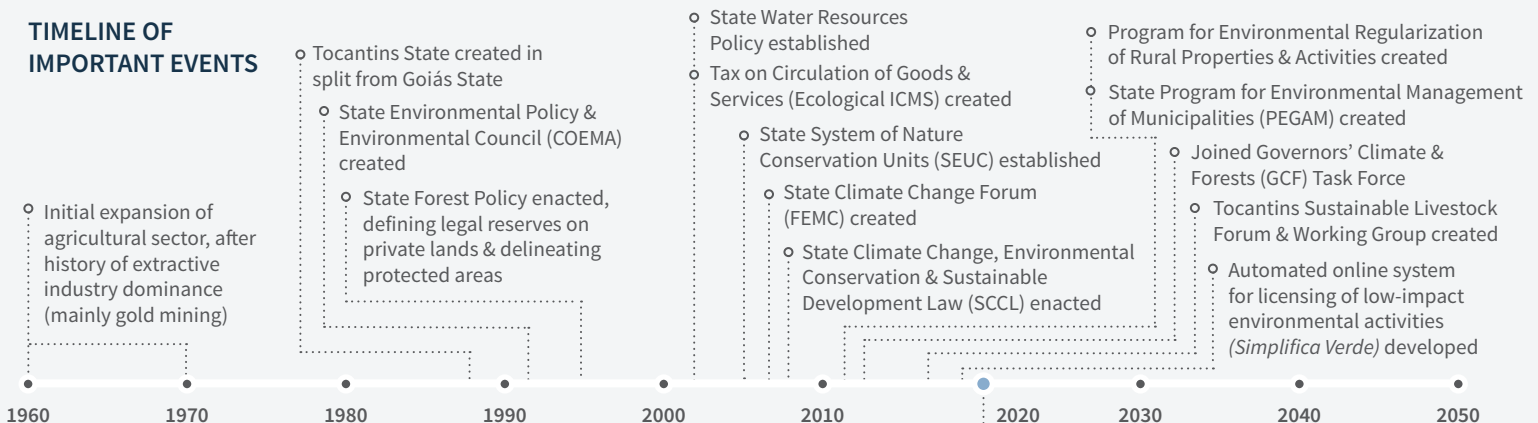


SPOTLIGHT ON INNOVATION

The Integrated Sustainable Regional Development Project (PDRIS) is Tocantins' umbrella program for offering loans to support various state secretaries and policy areas. 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) of the World Bank and implemented by the State Secretariat of Finance and Planning (SEFAZ), PDRIS aims to improve transportation infrastructure and support development that is balanced throughout the state, rather than concentrated in certain areas. To meet these objectives, PDRIS creates employment opportunities and promotes activities that

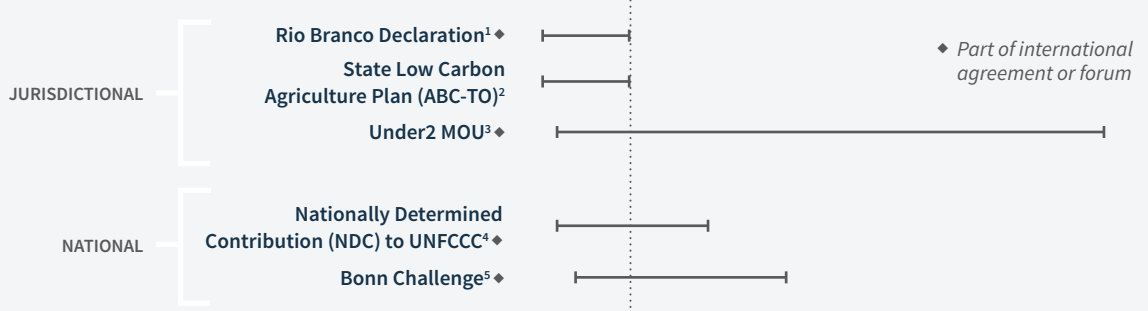
strengthen environmental education statewide. PDRIS offers loans to different state secretariats (e.g. SEMARH, SEAGRO, SEPLAN) to develop programs relevant to their respective scopes of work. For example, PDRIS finances SEPLAN's Socioeconomic Impact Evaluations (AISA), and contributed to the development and updating of state environmental policies, including the SCCL and forthcoming PES policy. PDRIS also includes 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 are also supporting 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.



KEY INTERVENTIONS

✘ DISINCENTIVES 📋 ENABLING MEASURES 🏆 INCENTIVES

FUNDING	ORGANIZATION(S) IMPLEMENTING	INTERVENTION & FOCUS	BENEFICIARIES
BILATERAL PUBLIC ¹	STATE PUBLIC ^{2,3}	Rural Environmental Registry (CAR): Legal Tocantins Project <i>Improved deforestation monitoring & control in 96 counties</i>	Rural landowners, state government
MULTILATERAL OTHER ⁴	STATE PUBLIC ^{3,5} NATIONAL NON-PROFIT ⁶	Sustainable Field Project (Campo Sustentável) <i>Promote & pilot sustainable agricultural practices (e.g., agroforestry), incl. through technical assistance, MRV, business plans</i>	Rural landowners
STATE PUBLIC ⁷	STATE PUBLIC ²	Tax on Circulation of Goods & Services (Ecological ICMS) <i>Shared tax revenue from state to municipal level for conservation & protected area management</i>	State & municipal governments
NATIONAL PUBLIC ⁸	STATE PUBLIC ⁵	State Low-Carbon Agriculture Plan (ABC-TO) <i>Promote reduction of GHG emissions from agriculture, increase production & income, preserve natural resources</i>	Rural landowners

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 PPCDQ-TO covers 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"> PPCDQ-TO sets deforestation reduction targets for Amazon (75-80%) & Cerrado (zero illegal deforestation); however, targets are not timebound (therefore, difficult to monitor progress) 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 into 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 → 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 2018, 135 of the state's 139 counties received benefits through the Ecological ICMS for positive environmental performance

CITATION | M. de los Rios, A.C. Crisostomo, O. David, C. Stickler. 2020. "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

TECHNICAL TEAM



SUPPORTED BY



based on a decision of the German Bundestag



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 the 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
- The State's solar energy Atlas provides information about the potential for the renewable energy sector to contribute to emissions reduction targets
- Implementation of zero-illegal deforestation commitments could mitigate reputational risks for sourcing companies
- Tocantins State Secretariats of Agriculture & Environment are collaborating with Secretariats in other MATOPIBA states to develop a regional sustainable development strategy