



# Invest in Sergipe's **CARBON MARKET**



# CARBON MARKET

Sergipe is a pioneer in carbon projects in mangroves and Caatinga, with diverse ecosystems and a consolidated legal framework.

Sergipe has positioned itself as a pioneer in public carbon projects in mangrove regions and the Caatinga biome, offering diversified opportunities in terrestrial, coastal, and marine ecosystems with an established framework, local law, security, governance, and a competitive market.

## Southern Sergipe Planning territory 2024



Source: Municipal grid - IBGE Sergipe Observatory

## Competitive Advantages

### Environmental Assets:

- Mangroves across the coastal zones: South Coast, Greater Aracaju, North Coast, and the São Francisco River estuary.
- Atlantic Forest and its rich socio-biodiversity.
- Caatinga biome.

### Strategic Location:

- Smallest state in Brazil: 21,918 km<sup>2</sup> – unique operational advantage.
- Replicable pilot model with lower transaction costs.
- Administrative agility for approval of local law, framework and projects.
- Easy access to the entire state territory.

### Consolidated Legal Law

- The State Government, in cooperation with the Sergipe Development Agency, established the Sergipe Green Economy Plan (PSEV)

through Decree No. 1.016 of Feb. 7, 2025, to modernize and strengthen the management of state public policies focused on Green Economy development, tackling climate change, and generating jobs and income. The framework is to promote the transition toward a regenerative and sustainable Green Economy, integrating actions, implementing projects, and creating economic instruments capable of generating opportunities and attracting investments for socially just and environmentally sustainable development.

- State Program of the Payments for Environmental Services (PES) (Decree 1.017/2025).
- State Program of Carbon Projects (in process).
- Legal certainty for long-term investments.

## Structured Governance

- Five state secretariats working together to facilitate the business environment.
- Desenvolve-SE as the executing agency for public carbon credit projects and commercialization of generated credits.
- State Council for PES and Carbon (under creation).
- State Environmental Assets Fund planne

## Sergipe's River Basins

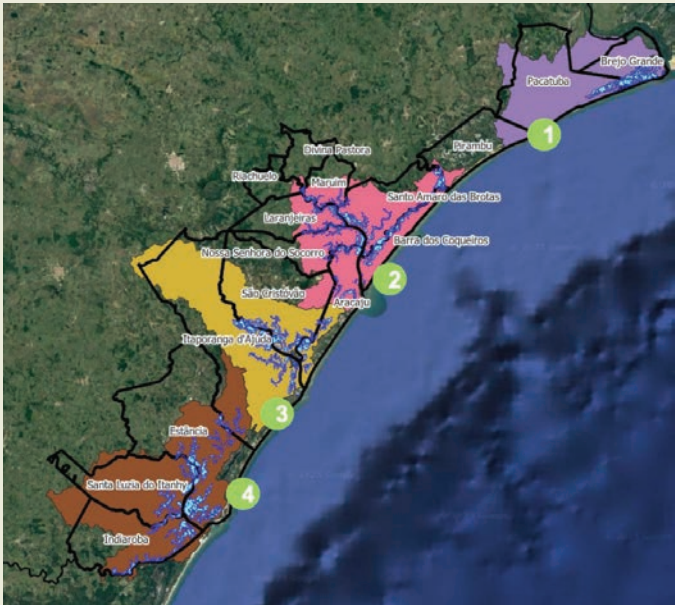


Source: Government of Sergipe



Blue Carbon - Investment Opportunities

**BLUE CARBON** - Protecting and conservation of the Mangroves, Coastal and Marine Regions, and Oceans



Agrupamento	Área de mangue (ha)	Conservação-potencial de VCUs em 40 anos	Restauração - Potencial de VCUs em 30 anos
1	2.635	56.719	6.276.036
2	5.132	668.069	9.511.489
3	6.212	632.125	14.791.877
4	7.305	763.886	19.881.464
Total	21.283	2.120.799	50.460.866

Source: Ambipar

**Identified Potential:** In Brazil is concentrate one of the largest ecosystems for Blue Carbon. In terms of mangrove coverage alone, they occupy 1.1 million hectares and are present in 338 municipalities. According to official data from the State Government, Sergipe’s coastal municipalities have an estimated mangrove area of 25,626 hectares, about 256.26 km², equivalent to 1.17% of the state’s territory.

- Mangroves with high carbon density (15–30% above the global average)
- Storage capacity several times higher than terrestrial forests
- 110 km of coastline with preserved ecosystems
- Strategic rivers: São Francisco, Vaza-Barris, Sergipe, Piauí, Real.

Bioeconomy:

- Artisanal fishing: 38,208 fishers (5th position

in the Northeast).

- Annual production: 3,400 tons of fish.
- Extractivism and traditional communities engaged in conservation.

Differential:

- Innovative projects still incipient in Brazil.
- Growing appreciation in international markets.
- Dual benefit: biodiversity protection + carbon credit

The government intends to prioritize the southern coast of the state to develop the first carbon credit pilot project.

Caatinga - A High-Potential Biome



Caatinga / City of Gararu

Scientific Advantages:

- Research from São Paulo State University (UNESP), published in the journal \*Science of the Total Environment\*, shows that the Caatinga surpasses other biomes, such as the Amazon and the Cerrado, in environmental services.
- Great carbon sequestration potential.
- Applicable REDD+ projects for deforestation reduction.
- ARR for reforestation and stock increase.









## Applications:

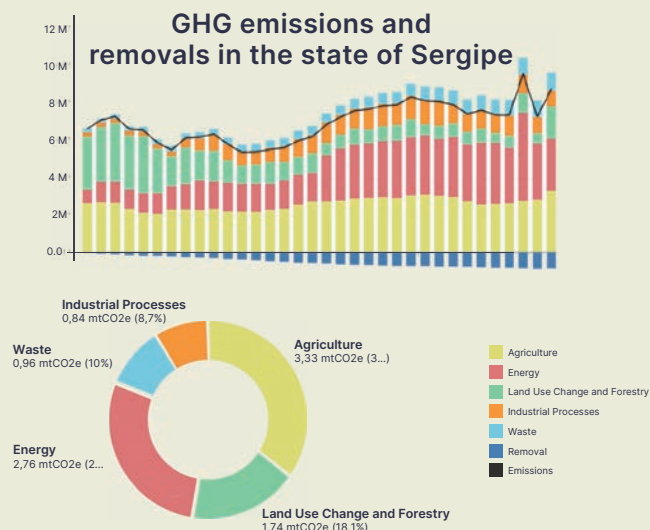
- Recovery of degraded areas.
- Sustainable management of native vegetation.
- Agroforestry systems.
- Low-carbon agriculture (ILPF).

## Benchmark

The Brazilian carbon credit market shows significant price variation depending of the project type and credit quality. Currently, the national average is around US\$ 5 per credit, but high socio-environmental integrity projects already show potential for higher valuation.

The State of Pará set a new benchmark by negotiating forest preservation by credits at US\$ 15 per unit with the LEAF Coalition, representing a 200% increase over the Brazilian average. This trade agreement involving up to 12 million carbon credits, moved approximately R\$ 1 billion, becoming the largest operation ever recorded in the national voluntary market and signaling a trend toward higher pricing for high-quality projects.

## Regional Contest:Northeast Opportunity



The regional context, in the Northeast, several states are structuring strategic partnerships for business opportunities in the carbon market, each leveraging the advantages of different ecosystems and biomes. Piauí positions itself as

a pioneer in REDD+ projects in the Caatinga biome, facing a considerable challenge with average emissions of 17.7 million tCO<sub>2</sub>e in the 2016–2023 period, which motivated robust investments in mitigation programs.

The state of Tocantins is developing a technological differential through a blockchain platform for jurisdictional credit transactions, offering security and efficiency in purchase and sale operations.

In this competitive context, Sergipe is building a unique position by combining blue carbon projects in coastal ecosystems and projects to restore degraded areas in the Caatinga, creating a diversified portfolio that serves both international markets interested in the blue economy and demands for forest restoration projects in degraded areas in semi-arid regions, a strategy that could result in a sustainable competitive advantage in the medium term.

## Sergipe: Unique Position in Blue Carbon + Caatinga.

### //// Potential Projects

#### Project Structuring VCS (Verified Carbon Standard) Verra:

- RT-TREES.
- REDD+.
- Blue Carbon for coastal ecosystems.
- ARR for reforestation.



## Instruments:

- In the context of ILO Convention No. 169, Free, Prior, and Informed Consultation (FPIC)







Mangrove



Marituba



- Socio-environmental safeguards.
- Ombudsman for PES and Carbon Projects.
- Structured Monitoring, Reporting, and Verification.
- Complete project traceability.

### Financial Model

- Public-private partnerships.
- State Environmental Assets Fund.
- Results-based payments.
- Participation in voluntary and regulated markets.
- ESG project modeling connected with the private sector

### //// Expected Impacts

#### Economic Potential

- Creation of green jobs in the local market.
- Positive impact on the state GDP.
- Diversification of the economic matrix.
- Add value to the bioeconomy.
- Attraction of sustainable investments.

#### Socio-environmental Benefits

- Conservation of coastal, marine, and terrestrial biodiversity.
- Income generation for traditional communities.
- Food security for fishing communities and family farmers.
- Climate justice and social inclusion.

#### Climate Goals

- Contribution to the Brazilian NDC: -53% emissions by 2030.
- Carbon neutrality by 2050.
- Alignment with the Paris Agreement.
- Subnational leadership in climate policy and governance

#### What the State is already Committing to:

Preparing an emissions inventory of state.



#### In Development (2025):

- Updating the forest inventory.
- State Climate Actions Plan.
- PES and Carbon technical report and assessment of socio-environmental risks in the mangrove region and surroundings.
- Mapping eligible areas.
- Studies on the economic potential of carbon credit generation.
- Engagement of Indigenous Peoples, Traditional Communities, and Family Farmers (PCTAFs).
- Structuring strategic partnerships to create a Carbon Sergipe.
- Technical and legal analysis of the original ownership of carbon credits and benefit sharing.
- Reactivate the State Climate Change Forum.

**Position yourself in the carbon market of the future. Sergipe offers adequate scale, a solid legal framework, and project diversity.**





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**Vice-Governor**  
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**DESENVOLVE-SE**  
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**SERGIPE**  
GOVERNO DO ESTADO