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"Agricultural development within the rural-urban continuum"

## Environmental Governance Analysis for REDD+ Implementation in the Municipality of Cachoeiras de Macacu, Brazil

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## Abstract

Deforestation and forest degradation activities are the biggest source of Greenhouse Gas (GHG) emissions in Brazil. Reducing Emissions from Deforestation and Forest Degradation (REDD+), developed under the United Nations Framework Convention on Climate Change (UNFCCC), is one mechanism that could help address both climate change mitigation and sustainable forest management including biodiversity protection and poverty reduction. REDD+ strategies aim at making forests more valuable standing than deforested, by assigning a financial value for the carbon stored in them. The overall goal of this research is to determine the feasibility of REDD+ to support suitable land and forest management in the municipality of Cachoeiras de Macacu. The municipality is located in the state of Rio de Janeiro within the highly fragmented Mata Atlântica biome. The research is based on an environmental governance analysis at the national, regional, and local scales. The elements of the environmental governance frameworks were contrasted with the elements of the REDD+ framework as the baseline, scope, funding instruments and, distribution mechanisms, in order to identify the strengths, weaknesses, opportunities, and threats for the incorporation of the mechanism in the study area. This analytical exercise allowed drawing conclusions about the major challenges that the incorporation of the mechanisms faces in the study area. The landownership hereditary system, intensive industrial and urban growth, lack of knowledge of REDD+ by authorities and inconsistencies in the law represent some of the major obstacles to define the scope into the study area. Nevertheless, the existence of public and private initiatives such as the "Reservas Particulares do Patrimônio Natural" (RPPN), the "Plano de Areas Verdes," and the creation of "Monumentos Naturales," open a window of opportunity for the development of subnational REDD+ initiatives.

**Keywords:** Cachoeiras de Macacu, environmental governance, feasibility, Mata Atlantica, political ecology, REDD+

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