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**Research Article**

# DEGRATION OF AN APA - ENVIRONMENTAL PROTECTION AREA COSTA DOS CORAIS

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**A R T I C L E I N F O**

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**A B S T R A C T**

Verification of Degradation in the APA - Coastal Environmental Protection Area, where anthropogenic environmental impacts were identified in the Atlantic Forest Biome and the Manguezal Biome on the banks of PE - 76 in the Municipality of Tamandaré - Pernambuco. With deforestation and burning in key areas for life. This report shows the direct action of the destruction of the Atlantic and Mangrove Forest Biomes, provoking drastic changes in the estuarine ecosystem and the Atlantic Forest ecosystem. For the accomplishment of this study and obtaining the images, two technical visits were made to the sites in the months of April and May of the current year.



## INTRODUCTION

The municipality of Tamandaré is located in the physiographic region of the Southern Forest of Pernambuco, 100 km from Recife. Part of its territory is included in an Environmental Protection Area - APA of Guadalupe (State Decree No. 19.635, dated March 13, 1997), which is located in the southern portion of the southern coast of the state of Pernambuco, encompassing part of the municipalities of Sirinhaém, Rio Formoso, Tamandaré and Barreiros (CPRH 1998). This municipality is also part of an Environmental Protection Area - APA Costa dos Corais (Federal Decree of October 23, 1997), located in the Municipalities of Maceió, Barra de Santo Antônio, São Luís do Quitunde, Passo de Camaragibe, São Miguel dos Milagres, Porto de Pedras, Japaratinga and Maragogi in the State of Alagoas and São José da Coroa Grande, Barreiros and Tamandaré in the State of Pernambuco (CPRH 1998). Hydrographically this municipality is inserted in the basins of the Mamucabas and Ilhetas rivers (CPRH 1998). The municipality of Tamandaré is located in the Geographic Coordinates 08 ° 45'36 "S and 35 ° 06'18"O, with an approximate area of 214.308 Km² (IBGE 2016). In the municipality of Tamandaré we find the Atlantic Forest, Restingas and Mangrove Biomes. Mangroves are ecosystems that carry vegetal communities typical of flooded environments, resistant to the high salinity of water and soil. In Brazil, mangroves are not very rich in species, however, they stand out for the great abundance of the populations that live in them.

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Therefore they can be considered some of the most productive natural environments in Brazil. The estuary is the transition band between the terrestrial and marine environments, where sea salt water meets the fresh water of the river. From this mixture comes a flooded soil, saline, rich in nutrients and organic material. We also find vegetation of restinga formed by a group of vegetables, physiognomically distinct, under the marine and fluvio-marine influence. These communities, distributed in mosaic, occur in areas of great ecological diversity and are considered edaphic communities because they depend more on the nature of the soil than on the climate (CONAMA, Resolution 07 of July 23, 1996). The Saltinho Biological Reserve, one of the most important Atlantic Forest biological reserves in the Northeast, was created in 1983 with the objective of protecting the Atlantic Forest ecosystem and the sources of the Mamucabas River, one of the few with a near pollution level to zero, which supplies the municipality of Tamandaré. We also find the Atlantic Forest presence all along the coast of this municipality, mainly on the slopes that surround the rivers and mangroves. A study of this nature has also been carried out by other authors in the Northeastern states (SOARES 2010), who carried out an analysis of the environmental degradation in the Permanent Preservation Areas located in the CearáMirim River estuary in Rio Grande do Norte .

***Characteristics and importance of the Region***

The mangrove is a coastal ecosystem, occurring only in places with tidal and brackish water, a mixture of fresh and salt water. So it is common to find this ecosystem in estuarine regions (where a river flows into the sea), in ponds and bays. (Santos 2012). They also occur only at points on the coast where there is a fine sediment deposit, the clay, hence the mangroves are

always associated with the mud. It is a highly productive ecosystem, mainly due to the great contribution of nutrients coming from the rivers that deposit in its sediment feeding several species of animals. The mangrove is an exclusively tropical ecosystem. The Restingas are formed by the set of dunes and sands generally covered with low vegetation, creating climatic variations, which confers great environmental and biological diversity. If this vegetation is destroyed, the soil will suffer intense erosion by the wind, which will cause the formation of mobile dunes, causing risks for the coastal environment as for the population. The Atlantic Forest is developed along the coast of the Northeastern, Southeastern and Southern Regions of the Country, with a million square kilometers. Its diversity results in the climatic and edaphic conditions, and the altitude and latitude reigning along the originally continuous forest belt. It is a full-fledged rainforest, associated with coastal mangrove ecosystems in the inlets, river mouths, bays and tidal-influenced lagoons, and restingaforests in the sandy shores of the coast. Its remnants are also associated with secondary forests of great importance, forming a unique set of world significance.

## MATERIALS AND METHODS

This study was carried out through two on-site technical visits in the region of Tamandaré-PE in the months of April and May of the current year, where several areas of Atlantic Forest and Mangroves egraded by deforestation and fires were observed, being documented through several photographs besides mapping the area.

## RESULTS

Direct and indirect impacts have greatly modified the coastal dynamics and decreased productivity of ecosystems in the region. Environmental pollution is felt in the ecosystems of mangroves, and remnants of Atlantic forest accelerating the process of corrosion, damaging biodiversity and increasing the incidence of diseases. With the publication of this work and the photographic materials that document the degradations in the environments of Atlantic Forest and Mangroves inserted in the Areas of Environmental Protection - APA of Guadalupe and APA Coast of the Corals to which the Municipality of Tamandaré - PE belongs and sharing this information with the Environmental Inspection Bodies such as CPRH - State Agency for the Environment and IBAMA - Brazilian Institute of Environment and Renewable Natural Resources, aims to increase inspections in these areas and punish their respective offenders, so that the preservation of an area of great environmental importance of the coast of Pernambuco is maintained in its integrity, because, this small report is the result of the suffering of the ecosystems by the anthropic action.

## DISCUSSION

The photographic surveys of the various points of deforestation and burning of Atlantic Forest and Mangroves characterize the anthropogenic actions that compromise local biodiversity and serve as an important tool to evaluate the state of conservation of this area, as well as to alert the inspection agencies of a practice that is becoming routine in the area under study.

## CONCLUSIONS

According to the study in question, it was observed that the studied area is very rich in Atlantic Forest, Restingas and Mangroves, it is an extremely productive estuary for the state of Pernambuco. Having a great biological diversity that can be studied later. These biomes are of great importance to our planet, besides the beauty of the species, which brings with it a very great ecological value for the place, contributing considerably to all living and native beings that survive and withdraw their sustenance from this ecosystem, being of fundamental importance that there is an increase in the power of supervision of this are.

***Thank***

To God for all wisdom and light in our ways. To our family members and friends who contributed to this work. MsC Elizabeth Rodrigues da Fonseca Dias, for orientation in the research, Professor Aline Barbosa, Coordinator of the Biological Sciences Course of the University Center Guararapes - UNIFG - Piedade - Jaboatão dos Guararapes, for the constant support and to all who directly or indirectly participated in the composition of this work.

**Photos Source: Souza. J. L. F de**

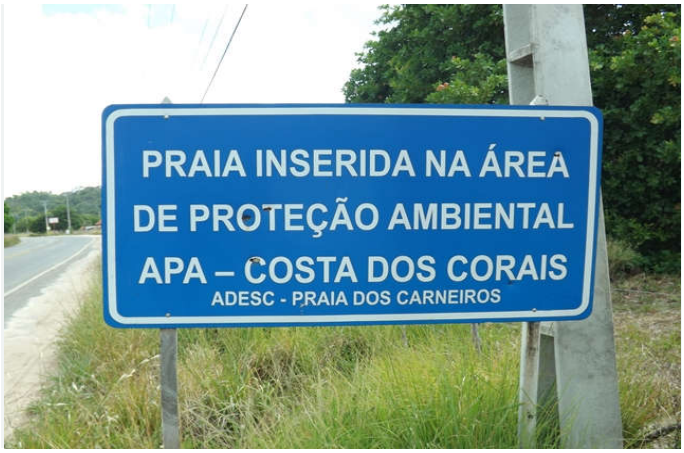


**Photo 1** Notice Board of the APA - Geographical Coordinates - S8.71995ºO35.09470º

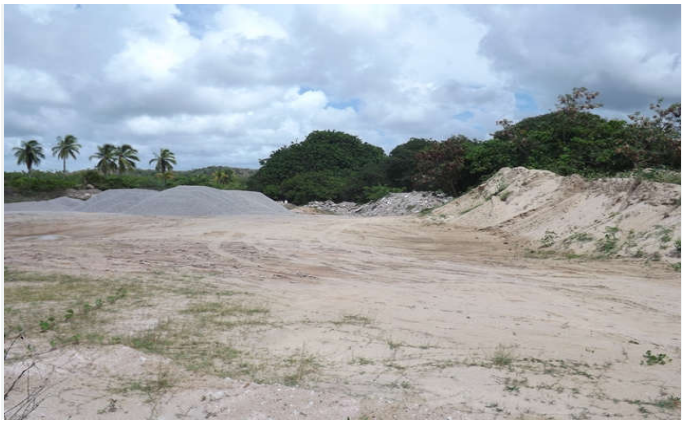

**Photo 2** Mangrove Deforestation - Geographical Coordinates - S8.71982º O35.09465º

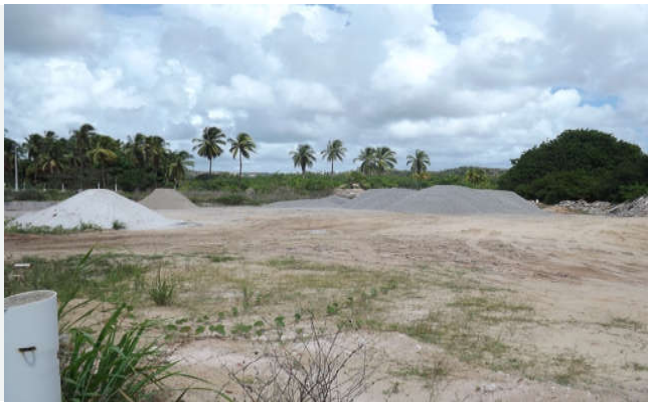

**Photo 3** Work in front of the notice board - Geographical Coordinates - S8.71982º O35.09465º

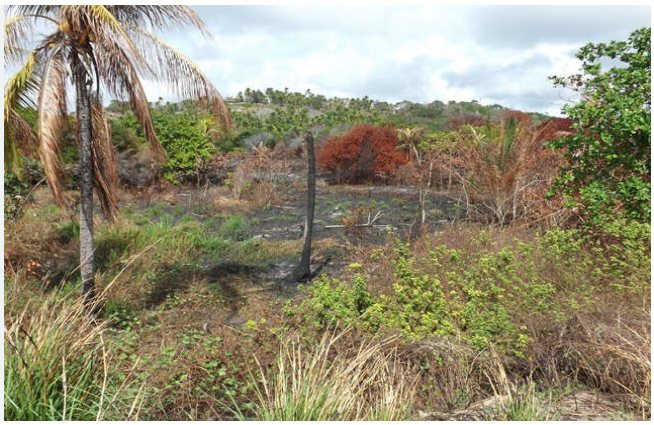

**Photo 4** Burned on the banks of PE 76 - Geographical coordinates - S8.70440º O35.08779º

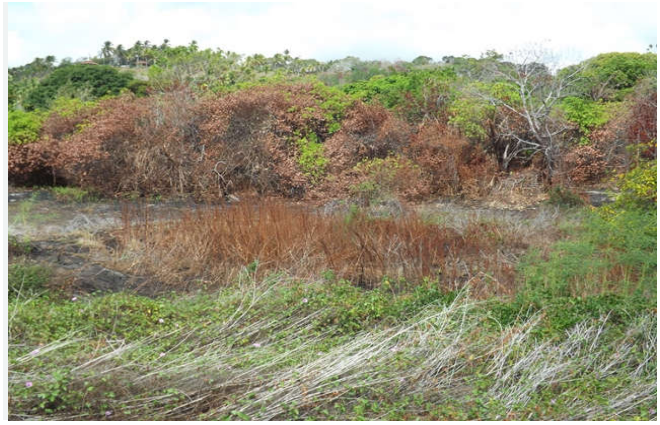

**Photo 5** Burned on the margins of PE 76 - Geographical Coordinates - S8.70440º O35.08779º

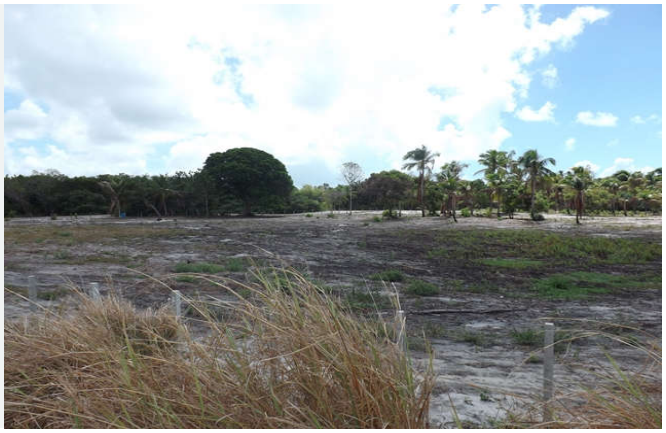

**Photo 6** Burned on the banks of the PE 76 - Geographical coordinates - S8.70433º O35.08785º

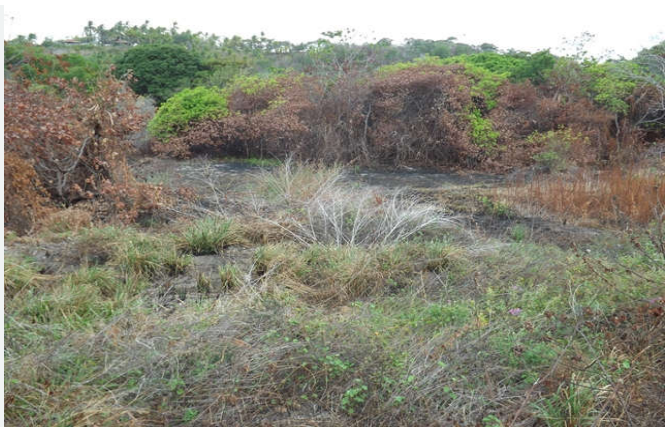

**Photo 7** Burned to the edges of the PE 76 - Geographical Coordinates - S8.70370º O35.08842º

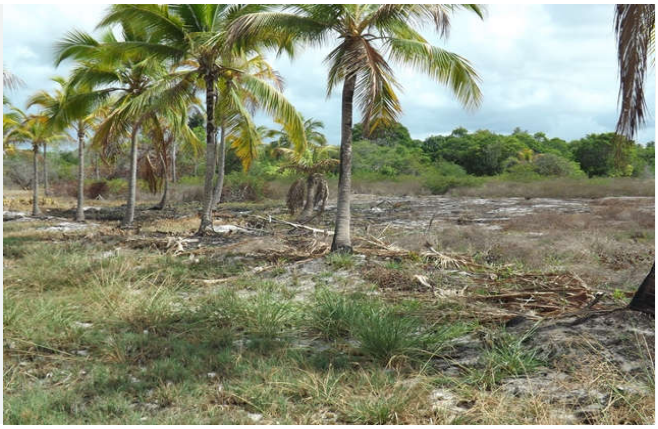

**Photo 8** Deforestation along the EAP 76 Geographical coordinates - S8.70359º O35.08853º

**Photo 9** Deforestation on the margins of PE 76 - Geographical coordinates - S8.69633º O35.10417º

**Photo 10** Atlantic Forest Burning - PE 76 Geographic Coordinates - S8.69625º O35.10018º

**Photo 11-** Burning of Atlantic Forest - PE 76 Geographic Coordinates - S8.69572º O35.09770º

**Photo 12** Burned Atlantic Forest PE 76 Geographic Coordinates - S8.69545º O35.10072º

**Photo 13** Burning of Atlantic Forest PE 76 Geographic Coordinates - S8.69514º O35.10383º

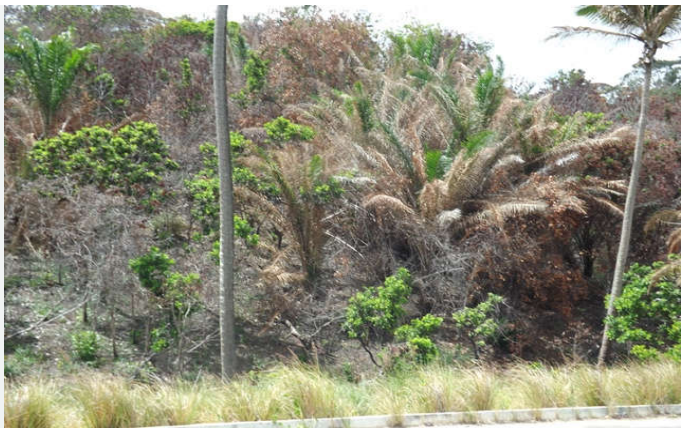

**Photo 14** Burning of Atlantic Forest - PE 76 Geographic Coordinates - S8.69457º O35.10294º

**Photo 15** Queimada de Mata Atlântica - PE 76Coordenadas Geográficas - S8.69448º O35.10166º

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