

Services and infrastructure on Ajuruteua Beach, on the Amazon Coast

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ABSTRACT

Since the 1970s, the northeastern region of Pará, including Bragança, has undergone intense changes due to population growth and real estate speculation. Ajuruteua beach, noted for its natural beauty, saw significant expansion after the construction of the PA-458 highway in 1983, resulting in disorderly urban development. Recently, a waterfront urbanization project, supported by the state government in partnership with the city council, is underway to improve infrastructure and services in the area. This study aims to analyze the current quality of the infrastructure and services available on the Ajuruteua waterfront, which is crucial for sustaining growing coastal tourism and improving local quality of life.

Keywords: Urban transformation, Real estate speculation, Coastal tourism, Urban infrastructure, Urban planning.

INTRODUCTION

Since 1970, the Northeast of the State of Pará has been undergoing a continuous process of transformation due to increased demographic pressure and increased real estate speculation (Rebello et al., 2017). Bragança (PA) is part of the coastal zone of the Amazon, with exuberant beauties constantly attracting the attention of tourists, where the beach of Ajuruteua stands out, located approximately 2.5m km long (Silva et al. 2023; Santos and Moreira, 2013)

Ajuruteua, which is located on the coast of Braga, was practically uninhabited until the early 1980s (Carvalho et al., 2000). Urban expansion and tourism in Ajuruteua was consolidated with the construction of the PA-458 highway, which connects Bragança to Ajuruteua, completed in 1983, since then the occupation has been taking place in a disorderly manner (Pereira et al. 2006). Fostering the increase in tourism and the improvement of the services offered on the beach, the government of the State of Pará, through an agreement signed between the State Secretariat of Public Works (Seop) and the Municipality of Bragança, started the urbanization project of the waterfront, 50% of the project has already been completed (Guedes, 2023).

OBJECTIVE

The present study aims to analyze the infrastructure and services offered on the shore of Ajuruteua beach.



METHODOLOGY

In this study, we adopted a qualitative approach (Teixeira, 2003, p.179). to investigate the aspects that influence the perception of visitors about the services offered, aiming to identify areas of excellence, opportunities for improvement and problems for the environment. The study took place at Ajuruteua Beach, northeast of Pará, 36 kilometers from Bragança-PA in May 2024, in which the services and infrastructure of the site were investigated.

The survey used data collection through walking in the coastal region that extends in a strip with territorial occupation and available tourist services. The observation stage involved the classification of the elements of basic sanitation, safety, mobility, recreation, leisure and lodging spaces, which were used as parameters to understand the dynamics of beach use.

RESULTS AND DISCUSSIONS

A survey of the quality of the services provided and the infrastructure of the Ajuruteua beach waterfront was carried out. Lovelock and Wright (2004, p.5) define that "services are economic activities that create value and provide benefits to customers at specific times and places". The survey revealed that there are inns (07) and lodgings (25), totaling 32 enterprises. Most of the inns built are made of wood, and are used by tourists, especially during the holiday period or on commemorative dates.

Regarding the services provided, it was observed that only some offer leisure options with swimming pools, space for children and an outdoor area. It was observed that the main leisure area is the waterfront, being a space for socialization, with kiosks that offer restrooms, food sales and space for the fun of beach goers. The developments are well centralized, facing the beach, providing a wide view of the entire coastal area. The place has 13 kiosks and 16 restaurants, as well as a square that provides leisure moments for residents and tourists.

The government has invested about 12 million in the Ajuruteua waterfront urbanization project, and only 50% of the Ajuruteua waterfront has been completed, the work is still in progress. In 2023, part of the work was delivered with asphalt pavement in an extension of 700 meters (Guedes, 2023). The lighting on the waterfront has full coverage of the electrical network and we count 34 poles, however some electrical wires are installed irregularly, the exposed wiring poses risks of electrical discharges, especially in rainy seasons where flooding exposes everyone to danger.

The transport is very close to the waterfront, with the bus that runs at different times. The population also has the transportation service of taxis and motorcycle taxi drivers to transit through the coastal area. There is daily patrolling with a police car, and the lifeguard service is offered only in the month of July.

The intensification of tourism on the beach is one of the responsible for the considerable increase



in the production of garbage on it, in total we count 43 trash cans, and these trash cans are the ones that are present on the shore and in the inns. Coe and Rogers (2000) consider that the main source of garbage on the beach is the users themselves, combined with the negligence of beach cleaning services.

As for the water supply, the houses and inns mostly have artesian wells, however, as the water from the water table near the coast is brackish and unfit for consumption,

When analyzing the site, we verified the lack of planning about the use of the occupation, visualizing the sanitation problems and the flaws in the structure of the work, which not only affects the residents, but also the aquatic ecosystem, with pipes being dumped on beaches and mangroves, considering that some are deposited directly into the sea. We verified that there is no general sewage network, 1 open sewer was found and 2 whose drainage is directed to the beach and the mangrove, the lack of a water treatment plant causes all the sewage that is drained through pipes (part exposed by the streets) to the strip of sand before being deposited in the sea, contaminate water, being the main cause of waterborne diseases such as skin and gastrointestinal diseases (Teixeira et al. 2018). Residents reported that when the tidal flood or heavy rain occurs, the cesspools and ditches overflow, subjecting the population to an unhealthy situation.

Diógenes et al. 2012 warn that even promoting activities that are economically important, the intensification of tourism over coastal spaces can lead to a series of damages to the environment. The disposal of sewage on the beach creates problems for both local residents and bathers who frequent the place, as the irregular disposal of sewage facilitates the spread of diseases, and affects marine life causing pollution in the sea and damage to biodiversity, the dumping of sewage on the beach also causes eutrophication, which is the process of decomposition of organic matter that is released into the sea.

The study carried out by Pereira et al. (2006) pointed out the improvement of the infrastructure and services offered on Ajuruteua beach from 2003 and 2004 as a result of tourism in the region. Rebello et al. (2017) point out that the edge of Ajuruteua beach is occupied by bars, inns and small businesses.

FINAL THOUGHTS

The survey of the urbanization project in the coastal area of the shore of Ajuruteua beach, on the analysis of occupation and infrastructure of the spaces, found that there was an improvement in the quality of the services offered in the inns, restaurants and kiosks. This is due to the intense tourist activity in the region, especially during the holiday period. The tourist activity on the Ajuruteua waterfront fosters the local economy, however it cannot be denied the existence of irregularities in the buildings on the waterfront and the impacts on the coastal environment.

The lack of planning policies and studies aimed at the occupation process affects the places of recreation on the beach, the quality of life of those who live there, in addition to the lack of basic



sanitation, putting the health of residents and bathers at risk. It should be noted that the way to mitigate the impacts caused in the coastal zone is through the implementation of organization and management strategies in coastal environments, accompanied by environmental policies.



REFERENCES

- Carvalho, E. A., Schaeffer-Novelli, Y., & Silva, A. B. (2000). Rodovia PA-458 e os manguezais da região Bragança-Ajuruteua, Estado do Pará. In V Simpósio de Ecossistemas Brasileiros, Conservação, 2000, Vitória – ES. Anais... Vitória: [s.n.], 295-302.
- Coe, J. M., & Rogers, D. B. (2000). *Marine Debris: Sources, Impacts and Solutions*. New York: Springer.
- Diógenes, V. H. D., Figueiredo, L. M., & Pimenta, H. C. D. (2012). Aplicação da Produção mais Limpa no setor de turismo: um estudo de caso em um hotel de Natal/RN. *GEPROS – Gestão da Produção, Operações e Sistemas*, 7(1), 141-156.
- Guedes, L. (2023). Em Bragança, obra de urbanização da orla da praia de Ajuruteua avança com serviços. Agência Pará. Retrieved from <https://agenciapara.com.br/noticia/45908/em-braganca-obra-de-urbanizacao-da-orla-da-praia-de-ajuruteua-avanca-com-servicos>. Accessed May 11, 2024.
- Lovelock, C., & Wright, L. (2004). *Serviços: marketing e gestão*. São Paulo: Saraiva.
- Pereira, L. C. C., Ribeiro, M. J. S., Guimarães, D. O., Souza Filho, P. W. M., & Costa, R. M. (2006). Formas de uso e ocupação na praia de Ajuruteua - Pará (Brasil). *Desenvolvimento e Meio Ambiente*, Editora UFPR, 13, 19-30.
- Rebello, F. K., Junior, F. P. S., Lopes, L. M. B., Garvão, R. F., & Corrêa, R. S. S. (2017). Efeitos da degradação ambiental no espaço natural da praia de Ajuruteua (PA): Percepção dos pescadores locais. *Nova Revista Amazônica*, 1.
- Santos, M. N. S., & Moreira, A. M. (2013). Análise das diferentes formas de uso da terra na praia de Ajuruteua, Bragança - PA. II Seminário Nacional Espaços Costeiros. Retrieved from <https://periodicos.ufba.br/index.php/secosteiros/article/view/14749/10103>. Accessed May 11, 2024.
- Teixeira, E. B. (2003). A análise de dados na pesquisa científica: importância e desafios em estudos organizacionais. *Desenvolvimento em Questão*, 1(2), 177-201.
- Teixeira, M. D. S., Bento, I. A. B., Carvalho, L. S., & Carvalho, M. C. S. (2018). Impactos socioambientais provenientes do esgotamento sanitário a céu aberto. *Revista Brasileira de Gestão Ambiental e Sustentabilidade*, 11, 849-858.