

**Urban regulations to [not] control urban growth: the case of Altamira (Pará)
between 2000 e 2010**

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Abstract

This study investigates the process of urban growth in Altamira (Pará State) in the period 2000 – 2010 and the effectiveness of planning tools to regulate the growth of the city. The city of Altamira, located in SE Pará State, underwent major territorial changes starting in the 1970s, with the acceleration of the agricultural frontier expansion in the Brazilian Amazon. New forms of occupation were juxtaposed to urban structures inherited from previous periods concomitantly with the city expansion. During the 1970s, its urban population grew at a rate of 16% per year. In subsequent decades, growth rates decreased, reaching an average of 3% per year between 2000 and 2010. In recent years, the construction of the Belo Monte hydroelectric power plant can be associated with new transformations in the city.

Data integration - satellite imagery, orthophotos, field data and census data - is performed for the identification and analysis of the city structure and its expansion between 2000 and 2010. The main elements of urban structure are the regional roads and access corridors with industrial plants, high-income neighborhoods and natural attraction (Xingu River). Secondary elements of the urban structure are the central and sub-central district for commerce and services, and the majority of residential neighborhoods.

During this period, the urban structure, considered as the fundamental factors affecting the location of activities in Altamira, has not changed. Nevertheless, it was observed an expansion of high-income neighborhoods toward SW, along Xingu River. The main center appeared to expand itself towards this southwestern sector. For low-income classes, the legal expansion took place mostly along regional roads and access corridors. The exception was the Santa Benedita housing project, built with federal funds from “*Minha Casa Minha Vida*” (“My house, my life”) program. It was designed for 1000 houses in a 30 hectares area, approximately 1 km distant from federal Transamazônica road (BR-230), the closest access to downtown.

Illegal urban occupation increased along Ambé, Altamira, and Panelas creeks, periodically flooded areas where houses are made of wood and dwellers circulate on “*estivas*” - elevated wooden passageways. These areas are planned to be converted into parks and their inhabitants to be removed because of the creation of Belo Monte reservoir, resulting in the need for replacing these areas population. If illegal occupations take place in many cities in Brazil due to perverse interaction between social-economic processes, planning options, urban policies and political practices, in Altamira these factors were reinforced by the expectation of some advantages for those people living in areas affected by the Belo Monte reservoir.

In the meantime, new laws were approved to regulate and give guidelines for urban expansion and development, in particular, the city’s Master Plan and two different laws defining the “Legal Urban Area”. The main conclusion of this study is that these laws were not effective in assuring a rational and controlled urban development.

Excluding the Xingu river and Arapujá island, legal urban area in Altamira raised 85% between 2000 and 2010 (from 3.714 ha to 6.885 ha). Impervious surfaces and bare soil areas raised 40%, population raised 24%, both less than the legal urban area. In 2000, almost 75% of legal urban area was unoccupied; in 2010, it was 81%. Not only urban legislation was ineffective but it also created a distortion in the territory, expanding areas allowed for urbanization, and not inducing high density occupation of already developed sectors. New legal urban areas were in part occupied with neighborhoods developed by the public and private sectors, which contributes to urban sprawl, creating new demands for public investment to provide infrastructure systems and social equipments.

A final reflection is made on how – or whether – urban regulations could be used to control urban growth, considering all attention and investment received by Altamira since the 1970s, and the expertise accumulated in Brazil regarding urban impacts caused by hydroelectric power plants.