

COASTAL ZONE GEOMORPHOLOGY AND SEDIMENTOLOGY OF BRAGANÇA AREA, AMAZON REGION, BRAZIL.

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The Bragança Coastal Plain is located in the Northeast of Pará State, in the Bragança-Viseu Coastal Basin (Cretaceous). The geometry of the basin and its paleotopography, associated with recent tectonic movements have controlled the distribution and the thickness of the tertiary and quaternary deposits. This coastal plain constitutes a macrotidal (6 m) depositional system, developed in a hot and humid equatorial climate, with a dry and wet well defined seasons and an annual precipitation averaging 3,000 mm. The geomorphologic units of the Bragança Coastal Plain have been mapped from TM Landsat-5 and SAR/Radarsat imageries, while the sedimentologic features have been studied from vibracorer stratigraphic drilling. The geomorphology of the area can be subdivided into three main geomorphologic realms: (1) alluvial plain, with fluvial channels, levees and flood plain; (2) estuarine plain, with an estuarine channel subdivided into estuarine funnel segment, straight segment, meandering segment and upstream channel and; (3) coastal plain, with salt marsh (inner and outer), tidal flat (supratidal mangroves, intertidal mangroves and sand tidal shoals), chenier, coastal dunes and beach environments. The Bragança Coastal Plain is a active sedimentary region which has developed largely since higher Holocene sea level (5,100 years B.P.). Based on geomorphology, lithostratigraphy and sedimentary processes is concluded that the coastal plain has evolved from mangrove progradation protected by dune-beach ridge with fluvial-estuarine-tidal channels associated. Therefore, the sedimentary model shows a complex depositional system which are influenced by large tidal range.