ABSTRACT

Two great compartments named the Cratonic Domain and the Gurupi Orogen mainly represent the Precambrian geological context of the Castanhal Sheet.

The Tracuateua Intrusive Suite that consists of biotite-muscovite syenogranite, associated with syn-plutonic dykes and aplite representsthe rocks of the Cratonic Domain.

The rocks associated with the Gurupi Orogen are represented by biotite-muscovite, garnet-chloritoid-muscovite-biotite schist and epidote-garnet-biotite-muscovite-chloritoid and staurolite schist assigned to the Vila Cristal Formation (medium grade metasedimentary sequence); by the nepheline syenite gneiss of the Boca Nova Alkaline Suite, and by Brasiliano age granitoid plutons (Ney Peixoto, Ourém, Jonasa and Japiim) that constituite the Internal Domain. The External Domain, a metasedimentary sequence of very low metamorphic grade, includes sericitic phyllite, carbonaceous phyllite, sericitic quartzite, metagreywacke and metasiltstone (Rio Piritoró Formation) and post-tectonic isotropic granitoid (Cantão Granite). The granitoid plutons that comprise the Tracuateua Intrusive Suite are of lower Proterozoic age, and are considered to be the oldest rocks in the area. The metamorphic and epimetamorphic rocks are related to the Gurupi Group, which is part of the Gurupi Shear Belt. This NW-SE shear belt has an asymmetric shape and consists of tectono-stratigraphic wedges (supracrustal rocks) and basement inliers (Maracaçumé Complex, observed in Rio Capim Sheet) that have been thrust over the São Luís Craton, mixing terranes and crustal slices of different ages.

Phanerozoic cover can be observed over some 80% of the Castanhal Sheet with the predominance of rocks of the Barreiras Group.

The mineral resources are mainly related to industrial minerals and rocks and, to a lesser extent to gold found at Cachoeira do Piriá in the domain of the Gurupi Shear Belt.