

## **Geomorphologic map and vulnerability of a portion of southeast Amazon State – Brazil**

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Geomorphologic mapping at a 1:250,000 scale is part of an environmental diagnosis that technically supports Amazonas State Integrated the Environmental Management Program, sponsored by the Federal Ministry of Environment

The geomorphic features of the area are classified in four taxonomic units: morphostructures, morphosculptures, morphological units and recent deposits. The area embraces three morphostructural domains, which reflect its main geotectonic features: Amazon Craton, Apuí Basin and Solimões Basin. The Amazon Craton is divided in three morphosculptural units in the study area: South Amazonian Planation Surface, Acari Plateau and Machado Relict Plateaus. The Apuí Basin is a Paleozoic intracratonic basin and part of the Acari Plateau, formed by pediplains and hills. The Solimões Basin is covered by Pliocene-Pleistocene sediments which deposition is related to the Northern Andean Chain uplift. The morphosculpture associated to the Solimões Basin is the Amazonian Depression, composed of pediplains and few hills. Recent deposits occur in all domains, but the fluvial plains and terraces are more developed in the Amazonian Depression. The morphological are similar to landforms characterized in the map by letters and numbers that describe the morphology, morphogeny and morphometry (drainage density and relief) of the landforms. The vulnerability of the landforms are estimated using morphometric measurements and will be later integrated with estimations from other thematic maps, in order to estimate the vulnerability of the ecosystem.