Integration of biogeochemical and hydrological data in pasture and forest covered catchments in Eastern Amazonia

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The changes in land use in Amazonia are altering the chemical environment of small streams. Studies have shown that the intensive use of soil by cattle graze and agricultural activities in Eastern Amazonia has degraded the water and soil quality in their small catchments. A biogeochemistry data set from water samples collected during our LBA phase II project has been compiled and treated for subsequent statistical analisys, integration with hidrological data set, and modeling purpose. Field work were done in Paragominas, state of Pará, Eastern Amazonia, from 1999 to 2003. In two catchments (pasture and forest covered) our research group collected water samples of rainfall, throughfall, overland flow, subsurface flow, stream water and groundwater, as well as measured hydrological paths flow rates. We expect that this work can contribute to the comprehension of how land use change in the Amazon region affects nutrients and carbon transfer processes from terrestrial to aquatic ecosystems.

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