

## **Taquarizinho Basin (Mato Grosso do Sul – Brazil) Land Use Multitemporal Analysis due GIS techniques**

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In Europe Union supported Pantanal-Chaco project, one of the main objectives is to evaluate the geo-environmental evolution of whole Pantanal region. The multitemporal analysis is to be one of the most important tools in this work, because it permits a global approach off the whole region in different moments in time.

The Taquarizinho basin, located southern from Coxim, was chosen like a sample area for developing one multitemporal analysis methodology. And it is analyzed in three different moments : 1966, 1985 and 1996.

The 66's data was available from the DSG/IBGE (Geographic Division of Brazilian Army and Brazilian Institute for Geography and Statistics), the 1985 and 1996 data have been obtained from Landsat TM images interpretation.

This investigation on this thirty years has shown a great change on landcover use. While in 1966 86% of this area was composed by *cerrado* (a regional natural moor- 72%) and forests (14 %), in 1985 these areas have been reduced to 27% (composed by 15% of forests and 12% of *cerrado*) the greater part 71% was used for grazing and agricultural systems (was only 9% in 1966). The 1996 data shown new modifications, remaining 11% of forests, 21% of *cerrado* and 66% for agricultural and grazing activities (European Union Fund).